

NFPA No.
1001

FIRE FIGHTER PROFESSIONAL QUALIFICATIONS 1974

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National Professional Qualifications System

established by the

Joint Council of National Fire Service Organizations

Constituent Members of the **Joint Council of National Fire Service Organizations**

Fire Marshals Association of North America

International Association of Arson Investigators

*International Association of Black Professional Fire Fighters

International Association of Fire Chiefs

International Association of Fire Fighters

International Fire Service Training Association

International Municipal Signal Association

International Society of Fire Service Instructors

Metropolitan Committee of International Association of Fire Chiefs

National Fire Protection Association

*Became member August 1, 1974.

The Joint Council of National Fire Service Organizations consists of leaders of the principal national organizations representing the Fire Service of the United States. It meets periodically to review current developments and to establish areas of common interest where cooperative efforts of member organizations can be used for maximum results.

An important step in the establishment of national standards of professional competence for the fire service was taken by the Joint Council on October 25, 1972.

The Council decided that one area of common interest in which national collective action was desirable was in the establishment of standards upon which the levels of competency within the fire service could be determined.

A committee of the Council was delegated the responsibility of preparing an acceptable system for the development of the standards. Following several months of work, during which the suggestions of constituent organizations were incorporated, the Committee submitted the final proposal to the Joint Council and the following system was approved and established:

1. Committees to develop standards of professional competency, made up of peer group representation; and
2. An independent Board to oversee and validate standards developed and the implementation of such standards in a nationally coordinated continuing professional development program for the fire service.

The Secretariat for Committees and Board is to be provided by the staff of the National Fire Protection Association.

1. Fire Service Professional Standards Development Committees

There are four committees, each of which is made up of representatives of organizations which are constituent members of the Joint Council and certain other persons nominated by the Joint Council, collectively.

The four committees are respectively responsible for the development and preparation of recommended minimum standards of professional competence required of:

1. Fire Fighters
2. Fire Inspectors and Investigators
3. Fire Service Instructors
4. Fire Service Officers.

Each committee is established and operated under NFPA standards making procedures with one important variation, which is that no draft standard shall be submitted to NFPA for final adoption until it has been approved by the National Professional Qualifications Board for the Fire Service.

Standards are prepared for use after final adoption as a basis for nationally standardized examinations by authorized agencies and the standards are available for adoption by federal, State and local authorities.

Committees do not determine, or become involved in, actual certification procedures or the direct implementation of the standards; they do assist implementing agencies by a continuing review and revision of the standards.

The balance of representation on each committee is as follows:

1. Fire Fighter Qualifications Committee

International Association of Fire Chiefs	3 persons
International Association of Fire Fighters	3 persons
International Association of Black Professional Fire Fighters	3 persons
International Fire Service Training Association	3 persons
International Society of Fire Service Instructors	3 persons
National Fire Protection Association	3 persons
Joint Council of National Fire Service Organizations	3 persons

2. Fire Inspector and Investigator Qualifications Committee

Fire Marshals Association of North America	2 persons
International Association of Arson Investigators	2 persons
International Association of Fire Chiefs	2 persons
International Association of Fire Fighters	2 persons
National Fire Protection Association	2 persons
Joint Council of National Fire Service Organizations	3 persons

3. Fire Service Instructor Qualifications Committee

International Association of Fire Chiefs	2 persons
International Association of Fire Fighters	2 persons
International Fire Service Training Association	2 persons
International Society of Fire Service Instructors	2 persons
National Fire Protection Association	2 persons
Joint Council of National Fire Service Organizations	3 persons

4. Fire Service Officer Qualifications Committee

Fire Marshals Association of North America	3 persons
International Association of Fire Chiefs	3 persons
International Association of Fire Fighters	3 persons
International Association of Black Professional Fire Fighters	3 persons
International Society of Fire Service Instructors	3 persons
Metropolitan Committee of International Association of Fire Chiefs	3 persons
National Fire Protection Association	3 persons
Joint Council of National Fire Service Organizations	3 persons

(The above representation was the result of a revision made in September 1974, which increased the number of members of the Fire Fighter and Fire Officer Committees.)

2. National Professional Qualifications Board for The Fire Service

A nine-person Board appointed by the Joint Council to act on behalf of the Council in the following duties and responsibilities:

- (i) The Board is constituted to supervise a nationally co-ordinated continuing professional development program for the Fire Service.
- (ii) The Board shall be responsive to the needs and opinions of all groups involved with the Fire Service and of others, including individuals who have related interests.
- (iii) It shall identify and define levels of professional progression.
- (iv) It shall correlate, review and validate draft standards prepared by the Technical Committees established to produce professional standards for each level of fire service responsibility.
- (v) It shall approve all draft standards before such are submitted for final adoption procedures.
- (vi) It shall be responsible for the accreditation and supervision of any national programs of certification and shall coordinate with implementing agencies to ensure validity and reliability of the evaluation criteria used in connection with such programs.

CURRENT COMPOSITION OF THE BOARD

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(1972-74)

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STATEMENT BY THE BOARD AS TO THE APPLICABILITY OF STANDARDS DEVELOPED UNDER THE SYSTEM

Application to Existing Positions

It is not the intent of the Board that these standards shall have the effect of rendering invalid any rank, qualification and appointment acquired prior to the adoption of this standard.

Upon adoption of any standard, the authority having jurisdiction shall classify its existing ranks, qualifications, and appointments to determine equivalency with an appropriate level of the standard.

An incumbent of a position established prior to adoption of a standard shall be considered qualified and eligible for future progression in accordance with the standards.

Existing Systems

Those existing systems of qualifications which meet or exceed these minimum standards should continue in force.

It is the intent, however, that existing systems of qualifications which fail to meet these standards be discontinued after adoption of the standard, so that all persons acquiring qualification thereafter do so in accordance with this standard.

The Board recognizes that, at present, wide variations exist in the standards of competence required of members of the fire service; and that due to geographic considerations and the differing requirements of the many organizations providing fire protection, higher levels of competence than those provided in the standards produced under the National System may be desirable in certain areas.

The Board considers it essential that all members of the fire service eventually achieve the minimum standards.

Performance Objectives

The Board directed all committees to develop standards in terms of terminal performance objectives, which are considered the *minimum* necessary for a person to be considered competent to engage in providing fire service at the respective level and in the role specified by the standard, no matter where that person is serving.

In this connection, it is pointed out that the statement of performance objectives contained in the standards is not a training program outline. A number of instructional steps are required for mastery of an objective. Teaching outlines will be more detailed and extensive, as a single objective can require many hours of instruction and may interrelate to instruction for other objectives.

The Standards

The standards are designed so that any member of the fire service can achieve the level required by various means; these

include participation in State and local training programs, self-study, attendance at colleges offering suitable courses, and by combinations of these means.

The standards are the first step: there must also be a controlled testing procedure by which personnel can be officially certified when they have demonstrated their competency. The Board stresses that such testing procedures are essential to a meaningful program of professionalism and, accordingly, is prepared, in conformance with the directions of the Joint Council of National Fire Service Organizations, to review the validity and quality of testing procedures established by State and local authorities, and to accredit such procedures.

The Board strongly recommends that certification procedures be established on a statewide basis in every state where no such system exists at present, and that every fire department participate in the program.

The establishment of standards and testing procedures will not, in themselves, ensure that all personnel will achieve the required levels of competency. It follows that training programs should be developed to prepare members of the fire service to acquire the skills and knowledge necessary to achieve the terminal performance objectives of the standards.

Throughout the standards, levels of numerical ascending sequence have been used to denote increasing degrees of responsibility: e.g., Fire Fighter I, II, III, the lowest or basic level being I. A similar sequence will be used in each standard; the total number of levels varying in accordance with the number of steps involved in the individual standard.

Apprenticeship Programs

Standard No. 1001, *Fire Fighter Professional Qualifications*, is recommended for use in apprenticeship programs for fire fighters as certified by the United States Department of Labor. Accreditation and supervision of such programs, as well as certification, shall be coordinated with the Joint IAFF/IAFC Committee on Apprenticeship Standards and the National Professional Qualifications Board for the Fire Service, in order to ensure the validity and reliability of the evaluation criteria used in connection with such programs.

Approval of Standard

The final draft of NFPA Standard No. 1001, *Fire Fighter Professional Qualifications*, was approved by the National Professional Qualifications Board for the Fire Service on the 9th day of August, 1974, with the recommendation that it be submitted for adoption at the NFPA Fall Meeting to be held in Seattle, Washington in November, 1974.

(The foregoing is not part of the Standard.)

Fire Fighter Professional Qualifications

NFPA No. 1001

**Standard for
Fire Fighter Professional Qualifications**

NFPA No. 1001 — 1974

1974 Edition of NFPA No. 1001

NFPA No. 1001 — 1974

This is the first edition of the Fire Fighter Professional Qualifications Standard. It was adopted by the National Fire Protection Association on November 20, 1974 at the Fall Fire Conference, on recommendation of the Professional Qualification Standards for Fire Fighters Committee.

Origin and Development

On December 14, 1972 the National Professional Qualifications Board for the Fire Service directed the chairman of four technical committees to develop minimum standards for each of the following areas: fire fighter, fire instructor, fire investigator and inspector, and fire officer.

In compliance with this movement, the Fire Service Professional Development Committee for Fire Fighter Qualifications met in several general sessions during 1973 and 1974. Vast amounts of material related to the fire fighting profession were reviewed and discussed. The committee concluded that the area of fire fighter standards relates to: (1) the fire fighter, (2) the airport fire fighter, (3) the driver/operator (engineer), (4) the emergency medical technician, (5) the alarm operator, (6) the master mechanic. At this point the committee digressed from levels within six areas only to develop minimum measurable performance standards in each category.

The intent of the committee was to develop performance standards in such a clear and concise manner that they can be used to determine without doubt, that any person so measured does truly possess the skills to be a fire fighter. The committee further contends that these performance objectives can be used in any fire department in any city, town or private organization throughout the North American Continent. To this end, the committee has recommended basic disciplinary areas of study for the fire fighter and areas that will lead to advancement into other areas of the fire services.

Committee on Fire Service Professional Standards Development for Fire Fighter Qualifications

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(Subcommittee Members are Nonvoting Members)

Work on this edition of the Fire Fighter Professional Qualifications Standard was greatly aided by a Subcommittee that assisted in developing much of the basic material for the detailed consideration of the Fire Fighter Professional Qualifications Committee. These Subcommittee members have a non-voting status, and there follows a listing of the persons who served on the Subcommittee.

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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.

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Interpretation Procedure of the Committee on Fire Service Professional Standards Development for Fire Fighter Qualifications

Those desiring an interpretation shall supply the Chairman with five identical copies of a statement in which shall appear specific reference to a single problem, paragraph, or section. Such a statement shall be on the business stationery of the inquirer and shall be duly signed.

When applications involve actual field situations they shall so state and all parties involved shall be named.

The Interpretations Committee will reserve the prerogative to refuse consideration of any application that refers specifically to proprietary items of equipment or devices. Generally, inquiries should be confined to interpretation of the literal text or the intent thereof.

Requests for interpretations should be addressed to the National Fire Protection Association, 470 Atlantic Avenue, Boston, MA 02210.

Standard for Fire Fighter Professional Qualifications

NFPA NO. 1001 — 1974

NOTICE

An asterisk (*) preceding the number or letter designating a paragraph indicates explanatory material on that paragraph in Appendix A.

Chapter 1 Administration

1-1 Scope. This Standard identifies the professional levels of competence required of fire department members.

It specifically covers the requirements for entrance into the fire department, and the first three levels of progression thereafter.

1-2 Purpose. The purpose of this Standard is to specify, in terms of performance objectives, the minimum requirements of professional competence required for service as a fire fighter.

It is not the intent of this Standard to restrict any jurisdiction from exceeding these minimum requirements.

This Standard shall cover the entrance requirements, and the requirements for the subsequent three levels of progression, i.e., Fire Fighter I, Fire Fighter II, and Fire Fighter III.

1-3 General.

1-3.1 All of the performance standards for any level of fire fighter shall meet the following criteria: It shall be performed swiftly, safely, and with competence. Each objective shall be met in its entirety.

1-3.2 It is not required for the objectives to be mastered in the order they appear. The local or state training program shall establish the instructional priority, and the training program content to prepare individuals to meet the performance objectives of this Standard.

1-3.3 Performance of objectives for qualification covered by this Standard shall be evaluated by three approved individuals from the Fire Service, one of whom may be from the state or regional fire service training agency.

1-3.4 When appointed to the fire department after fulfilling the entrance requirements of Chapter 2 of this Standard, the individual may be called a fire fighter. The fire fighter shall meet all of the objectives for Fire Fighter I before being certified at that level, and before applying for qualification at the next higher level.

1-3.5 The Fire Fighter I shall meet all of the objectives for Fire Fighter II before being certified at that level, and before applying for qualification at the next higher level.

1-3.6 The Fire Fighter II shall meet all of the objectives for Fire Fighter III before being certified at that level, and before applying for qualification at the next higher level.

1-4 Definitions.

(See also the Official NFPA Definitions, inside front cover.)

1-4.1 Candidate: The person who has made application to become a fire fighter.

1-4.2 Fire Fighter: The member of a fire department who has fulfilled the entrance requirements of Chapter 2 of this Standard, but has not met the objectives for Fire Fighter I.

1-4.3 Fire Fighter I: The fire fighter, at the first level of progression in the fire department, who has demonstrated the knowledge of, and the ability to perform the objectives specified in this Standard for that level, and who works under direct supervision.

1-4.4 Fire Fighter II: The fire fighter, at the second level of progression in the fire department, who has demonstrated the knowledge of, and the ability to perform the objectives specified in this Standard for that level, and who works under minimum direct supervision.

1-4.5 Fire Fighter III: The fire fighter, at the third level of progression in the fire department, who has demonstrated the knowledge of, and the ability to perform the objectives specified in this Standard, and who works under minimum supervision, but under orders.

1-4.6 Fire Department: The agency that provides both fire suppression and fire prevention services to a state, county, municipality, or organized fire district.

1-4.7 Safely: To perform the objective without injury to self or to others.

1-4.8 With Competence: Possessing knowledge, skills, and judgment needed to perform indicated objective satisfactorily.

1-4.9 Swiftly: The time, as determined by the authority having jurisdiction, that it takes an approved fire fighter to perform the objective satisfactorily.

1-4.10 Demonstrate: To show by actual use, illustration, simulation, or explanation.

1-4.11 Identify: To physically select, indicate, or explain verbally or in writing, using standard terms recognized by the Fire Service.

1-4.12 Objective: Observable or measurable demonstration of a skill, knowledge, or both.

1-4.13 Qualification: Having satisfactorily completed the requirements of the objectives.

Chapter 2 Entrance Requirements

*2-1 General.

*2-1.1 The candidate shall have a high school diploma or a state recognized equivalent.

*2-1.2 The candidate shall be at least 18 years of age.

*2-1.3 The candidate shall pass the medical and physical fitness requirements included in Chapter 2.

*2-1.4 There shall be a thorough investigation and evaluation of the candidate's character before the candidate is accepted into the fire department.

2-2 Medical Requirements for Fire Department Candidates. The candidate shall be rejected when the medical examination reveals any of the following conditions:

2-2.1 Abdominal Organs and Gastrointestinal System. The causes for rejection for appointment shall be:

(a) **CHOLECYSTECTOMY**, sequelae of, such as postoperative stricture of common bile duct, reforming of stones in hepatic or common bile ducts, or incisional hernia, or post-cholecystectomy syndrome when symptoms are so severe as to interfere with normal performance of duty.

(b) **CHOLECYSTITIS**, acute or chronic, with or without cholelithiasis, if diagnosis is confirmed by usual laboratory procedures or authentic medical records.

(c) **CIRRHOSIS**, with or without history of chronic alcoholism, regardless of the absence of manifestations such as jaundice, ascites or known esophageal varices, or abnormal liver function tests.

(d) **FISTULA**, in ano.

(e) **GASTRITIS**, Chronic hypertrophic, severe.

(f) **HEMORRHOIDS**:

(1) External hemorrhoids producing marked symptoms.

(2) Internal hemorrhoids, if large or accompanied with hemorrhage or protruding intermittently or constantly.

(g) **HEPATITIS**, within the preceding six months, or persistence of symptoms after a reasonable period of time with objective evidence of impairment of liver function.

(h) HERNIA:

(1) Hernia, other than small asymptomatic umbilical or hiatal.

(2) History of operation for hernia within the preceding 60 days.

(i) INTESTINAL OBSTRUCTION, or authenticated history of more than one episode, if either occurred during the preceding 5 years, or if resulting condition remains which produces significant symptoms or requires treatment.

(j) MEGACOLON, of more than minimal degree, DIVERTICULITIS, REGIONAL ENTERITIS, and ULCERATIVE COLITIS. IRRITABLE COLON of more than moderate degree.

(k) PANCREAS, acute or chronic disease of, if proven by laboratory tests, or authenticated medical records.

(l) RECTUM, stricture or prolapse of.

(m) RESECTION, GASTRIC OR BOWEL; OR GASTROENTEROSTOMY. However, minimal intestinal resection in infancy or childhood (for example: for intussusception or pyloric stenosis) is acceptable if the individual has been asymptomatic since the resection and if surgical consultation (to include upper and lower gastrointestinal series) gives complete clearance.

(n) SCARS:

(1) Scars, abdominal, regardless of cause, which show hernial bulging or which interfere with movements.

(2) Scar pain associated with disturbance of function of abdominal wall or contained viscera.

(o) SINUSES of the abdominal wall.

(p) SPLENECTOMY, except when accomplished for the following:

(1) Trauma.

(2) Causes unrelated to diseases of the spleen.

(3) Hereditary spherocytosis.

(4) Disease involving the spleen when followed by correction of the condition for a period of at least two years.

(q) TUMORS (*see 2-2.17*).

(r) ULCER:

(1) Ulcer of the stomach or duodenum, if diagnosis is confirmed by X-ray examination, or authenticated history thereof.

(2) Authentic history of surgical operation(s) for gastric or duodenal ulcer.

(s) OTHER congenital or acquired abnormalities and defects which preclude satisfactory performance of fire duties or which require frequent and prolonged treatment.

2-2.2 Blood and Blood-Forming Tissue Diseases. The causes for rejection for appointment shall be:

(a) ANEMIA:

(1) Blood loss anemia — until both condition and basic cause are corrected.

(2) Deficiency anemia, not controlled by medication.

(3) Abnormal destruction of RBC's: Hemolytic anemia.

(4) Fault RBC construction: Hereditary hemolytic anemia, thalassemia and sickle-cell anemia.

(5) Myelophthisic anemia: myelomatosis, leukemia, Hodgkin's disease.

(6) Primary refractory anemia: Aplastic anemia, Di-Guglielmo's syndrome.

(b) HEMORRHAGIC STATES:

(1) Due to changes in coagulation system (hemophilia, etc.).

(2) Due to platelet deficiency.

(3) Due to vascular instability.

(c) LEUKOPENIA, chronic or recurrent, associated with increased susceptibility to infection.

(d) MYELOPROLIFERATIVE DISEASE (OTHER THAN LEUKEMIA):

(1) Myelofibrosis.

(2) Megakaryocytic myelosis.

(3) Polycythemia vera.

(e) SPLENOMEGALY, until the cause is remedied.

(f) THROMBOEMBOLIC disease except for acute, nonrecurrent conditions.

2-2.3 Dental. The causes for rejection for appointment shall be:

(a) DISEASES OF THE JAWS OR ASSOCIATED TISSUES, which are not easily remediable and which will incapacitate the individual or prevent the satisfactory performance of duty.

(b) MALOCCLUSION, severe, which interferes with the mastication of a normal diet.

(c) **ORTHODONTIC APPLIANCES**, individuals with orthodontic appliances attached to the teeth are administratively unacceptable so long as active treatment is required. Individuals with retainer orthodontic appliances, who are not considered to require active treatment, are administratively acceptable.

(d) **ORAL TISSUES**, extensive loss in an amount that would prevent replacement of missing teeth with a satisfactory prosthetic appliance.

(e) Relationship between the mandible and maxilla of such a nature as to preclude future satisfactory prosthodontic replacement.

2-2.4 Ears and Hearing.

2-2.4.1 Ears. The causes for rejection for appointment shall be:

(a) **AUDITORY CANAL:**

(1) Atresia or severe stenosis of the external auditory canal.

(2) Tumors of the external auditory canal except mild exostoses.

(3) Severe external otitis, acute or chronic.

(b) **AURICLE:** Agenesis, severe; or severe traumatic deformity, unilateral or bilateral.

(c) **MASTOIDS:**

(1) Mastoiditis, acute or chronic.

(2) Residual or mastoid operation with marked external deformity which precludes or interferes with the wearing of a gas mask or helmet.

(3) Mastoid fistula.

(d) **MENIERE'S SYNDROME.**

(e) **MIDDLE EAR:**

(1) Acute or chronic suppurative otitis media. Individuals with a recent history of acute suppurative otitis media will not be accepted unless the condition is healed and a sufficient interval of time subsequent to treatment has elapsed to insure that the disease is in fact not chronic.

(2) Adhesive otitis media associated with hearing level by audiometric test of 20 db or more average for the speech frequencies (500, 1000, or 2000 cycles per second) in either ear regardless of the hearing level in the other ear.

(3) Acute or chronic serous otitis media.

(4) Presence of attic perforation in which presence of cholesteatoma is suspected.

(5) Repeated attacks of catarrhal otitis media; intact grayish, thickened drum(s).

(f) **TYMPANIC MEMBRANE:**

(1) Any perforation of the tympanic membrane.

(2) Severe scarring of the tympanic membrane associated with hearing level by audiometric test of 20 db or more average for the speech frequencies (500, 1000, and 2000 cycles per second) in either ear regardless of the hearing level in the other ear.

(g) **OTHER** diseases and defects of the ear which obviously preclude satisfactory performance of duty or which require frequent and prolonged treatment.

2-2.4.2 Hearing. The cause for rejection for appointment shall be:

HEARING ACUITY LOSS by audiometric test of 20 decibles or more for the speech frequencies (500-1000-2000 cycles) in either ear, or loss of speech reception of phonetically balanced words at or below 90 percent normal reception for either ear.

2-2.5 Endocrine and Metabolic Disorders. The causes for rejection for appointment shall be:

(a) **ADRENAL GLAND**, malfunction of, of any degree

(b) **CRETINISM.**

(c) **DIABETES INSIPIDUS.**

(d) **DIABETES MELLITUS.**

(e) **GIGANTISM OR ACROMEGALY.**

(f) **GLYCOSURIA**, persistent, regardless of cause.

(g) **GOITER:**

(1) Simple goiter with definite pressure symptoms or so large in size as to interfere with the wearing of a uniform or fire fighting equipment.

(2) **Thyrototoxicosis.**

(h) **GOUT.**

(i) **HYPERINSULINISM**, confirmed, symptomatic.

(j) **HYPERPARATHYROIDISM** and **HYPOPARATHYROIDISM.**

(k) **HYPOPITUITARISM**, severe.

(l) MYXEDEMA, spontaneous or postoperative (with clinical manifestations and not based solely on low basal metabolic rate).

(m) NUTRITIONAL DEFICIENCY DISEASES (including sprue, beriberi, pellagra, and scurvy) which are more than mild and not readily remediable or in which permanent pathological changes have been established.

(n) OTHER ENDOCRINE OR METABOLIC DISORDERS which obviously preclude satisfactory performance of duty or which require frequent and prolonged treatment.

2-2.6 Extremities.

2-2.6.1 Upper Extremities.

2-2.6.1.1 Limitation of Motion. The causes for rejection for appointment shall be joint ranges of motion less than the measurements listed below:

(a) SHOULDER:

(1) Forward elevation to 90 degrees

(2) Abduction to 90 degrees

(b) ELBOW:

(1) Flexion to 100 degrees

(2) Extension to 15 degrees

(c) WRIST: A total range of 15 degrees (extension plus flexion)

(d) HAND: Pronation to the first quarter of the normal arc.

(e) FINGERS: Inability to clench fist, pick up a pin or needle, and grasp an object.

2-2.6.1.2 Hand and Fingers. The causes for rejection for appointment shall be:

(a) Absence (or loss) of more than $\frac{1}{3}$ of the distal phalanx of either thumb.

(b) Absence (or loss) of distal and middle phalanx of an index, middle or ring finger of either hand irrespective of the absence (or loss) of little finger.

(c) Absence of more than the distal phalanx of any two of the following fingers, index, middle finger or ring finger, of either hand.

(d) Absence of hand or any portion thereof, except for fingers as noted above.

(e) HYPERDACTYLIA.

(f) Scars and deformities of the fingers, hands, or both which impair circulation, are symptomatic, or which impair normal function to such a degree as to interfere with the satisfactory performance of fire duty.

2-2.6.1.3 Wrist, Forearm, Elbow, Arm, and Shoulder.

The causes for rejection for appointment shall be:

Healed disease or injury of wrist, elbow, or shoulder with residual weakness or symptoms of such a degree as to preclude satisfactory performance of duty.

2-2.6.2 Lower Extremities (*see also 2-2.6.3*).

2-2.6.2.1 Limitation of motion. The causes for rejection for appointment shall be joint ranges of motion less than the measurement listed below:

(a) HIP:

- (1) Flexion to 90 degrees
- (2) Extension to 10 degrees (beyond 0)

(b) KNEE:

- (1) Full extension
- (2) Flexion to 90 degrees

(c) ANKLE:

- (1) Dorsiflexion to 10 degrees
- (2) Plantar flexion to 10 degrees

(d) TOES. Stiffness which interferes with walking, running, or jumping.

2-2.6.2.2 Foot and Ankle.

The causes for rejection for appointment shall be:

(a) Absence of one or more small toes of one or both feet, if function of the foot is poor or running or jumping is precluded, or absence of foot or any portion thereof except for toes as noted herein.

(b) Absence (or loss) of great toe(s) or loss of dorsal flexion thereof if function of the foot is impaired.

(c) Claw toes precluding the wearing of service boots.

(d) Clubfoot.

(e) Flatfoot, pronounced cases, with decided eversion of the foot and marked bulging of the inner border, due to inward rotation of the astragalus, regardless of the presence or absence of symptoms.

- (f) Flatfoot, spastic.
- (g) Hallux valgus, if severe and associated with marked exostosis or bunion.
- (h) Hammer toe which interferes with the wearing of boots.
- (i) Healed disease, injury, or deformity including hyperdactylia which precludes running, is accompanied by disabling pain, or which prohibits wearing of service boots.
- (j) Ingrowing toe nails, if severe, and not remediable.
- (k) Obliteration of the transverse arch associated with permanent flexion of the small toes.
- (l) Pes cavus, with contracted plantar fascia, dorsiflexed toes, tenderness under the metatarsal heads, and callosity under the weight bearing areas.

2-2.6.2.3 Leg, Knee, Thigh, and Hip. The causes for rejection for appointment shall be:

(a) Dislocated semilunar cartilage, loose or foreign bodies within the knee joint, or history of surgical correction of same if —

(1) Within the preceding six months.

(2) Six months or more have elapsed since operation without recurrence, and there is instability of the knee ligaments in lateral or anteroposterior directions in comparison with the normal knee or abnormalities noted on X-ray; significant atrophy or weakness of the thigh musculature in comparison with the normal side; unacceptable active motion in flexion and extension, or there are other symptoms of internal derangement.

(b) Authentic history or physical findings of an unstable or internally deranged joint causing disabling pain or seriously limiting functions. Individuals with verified episodes of buckling or locking of the knee who have not undergone satisfactory surgical correction or, if subsequent to surgery, there is evidence of more than mild instability of the knee ligaments in lateral and anteroposterior directions in comparison with a normal knee, weakness or atrophy of the thigh musculature in comparison with the normal side, or if the individual requires medical treatment of sufficient frequency to interfere with the performance of duty.

2-2.6.2.4 General. The causes for rejection for appointment shall be:

(a) Deformities of one or both lower extremities which have interfered with function to such a degree as to prevent the

individual from following a *physically active* vocation in life or which would interfere with the satisfactory completion of prescribed training and performance of fire duty.

(b) Diseases or deformities of the hip, knee, or ankle joint which interfere with walking, running, or weight bearing.

(c) Pain in lower back or leg which is intractable and disabling to the degree of interfering with walking, running, and weight bearing.

(d) Shortening of a lower extremity resulting in any limp of noticeable degree.

2-2.6.3 Miscellaneous (*see also 2-2.6.1 and 2-2.6.2*). The causes for rejection for appointment shall be:

(a) **ARTHRITIS.**

(1) Active or subacute arthritis, including Marie-Strumpell type.

(2) Chronic osteoarthritis or traumatic arthritis of isolated joints of more than minimal degree, which has interfered with the following of a physically active vocation in civilian life or which precludes the satisfactory performance of duty.

(3) Documented clinical history of rheumatoid arthritis.

(4) Traumatic arthritis of a major joint of more than minimal degree.

(b) **DISEASE OF ANY BONE OR JOINT**, healed, with such resulting deformity or rigidity that function is impaired to such a degree that it will interfere with fire service.

(c) **DISLOCATION**, old unreduced; substantiated history of recurrent dislocations of major joints; instability of a major joint, symptomatic and more than mild; or if, subsequent to surgery, there is evidence of more than mild instability in comparison with the normal joint, weakness or atrophy in comparison with the normal side, or if the individual requires medical treatment of sufficient frequency to interfere with the performance of duty.

(d) **FRACTURES.**

(1) Malunited fractures that interfere significantly with function.

(2) Ununited fractures.

(3) Any old or recent fracture in which a plate, pin, or screws were used for fixation and left in place and which may be subject to easy trauma, i.e., as a plated tibia, etc.

(e) **INJURY OF A BONE OR JOINT** within the preceding six weeks, without fracture or dislocation, of more than a minor nature.

(f) **MUSCULAR PARALYSIS**, contracture, or atrophy, if progressive or of sufficient degree to interfere with fire service.

(g) **MYOTONIA CONGENITA**. Confirmed.

(h) **OSTEOMYELITIS**, active or recurrent, of any bone or substantiated history of osteomyelitis of any of the long bones unless successfully treated 2 or more years previously without subsequent recurrence or disqualifying sequelae as demonstrated by both clinical and X-ray evidence.

(i) **OSTEOPOROSIS**.

(j) **SCARS**, extensive, deep, or adherent, of the skin and soft tissues or neuromas of an extremity which are painful, which interfere with muscular movements, which preclude the wearing of fire equipment, or that show a tendency to break down.

(k) **CHONDROMALACIA**, manifested by verified history of joint effusion, interference with function, or residuals from surgery.

2-2.7 Eyes and Vision.

2-2.7.1 Eyes.

2-2.7.1.1 Lids. The causes for rejection for appointment shall be:

(a) **BLEPHARITIS**, chronic more than mild. Cases of acute blepharitis will be rejected until cured.

(b) **BLEPHAROSPASM**.

(c) **DACRYOCYSTITIS**, acute or chronic.

(d) Destruction of the lids, complete or extensive, sufficient to impair protection of the eye from exposure.

(e) Disfiguring cicatrices and adhesions of the eyelids to each other or to the eyeball.

(f) Growth or tumor of the eyelid other than small early basal cell tumors of the eyelid, which can be cured by treatment, and small nonprogressive asymptomatic benign lesions.

(g) **LAGOPHTHALMOS**.

(h) **PTOSIS** interfering with vision.

(i) **TRICHIASIS**, severe

2-2.7.1.2 Conjunctiva. The causes for rejection for appointment shall be:

(a) **CONJUNCTIVITIS**, chronic, including vernal catarrh and trachoma. Individuals with acute conjunctivitis are unacceptable until the condition is cured.

(b) **PTERYGIUM**.

(1) Pterygium recurring after three operative procedures.

(2) Pterygium encroaching on the cornea in excess of three millimeters of interfering with vision.

2-2.7.1.3 Cornea. The causes for rejection for appointment shall be:

(a) **DYSTROPHY**, corneal, of any type including keratoconus of any degree.

(b) **KERATITIS**, acute or chronic.

(c) **ULCER**, corneal; history of recurrent ulcers or corneal abrasions (including herpetic ulcers).

(d) **VASCULARIZATION** or **OPACIFICATION** of the cornea from any cause which interferes with visual function or is progressive.

2-2.7.1.4 Uveal tract. The causes for rejection for appointment shall be:

Inflammation of the uveal tract except healed traumatic choroiditis.

2-2.7.1.5 Retina. The causes for rejection for appointment shall be:

(a) **ANGIOMATOSES**, **PHAKOMATOSES**, **RETINAL CYSTS**, and other congenito-hereditary conditions that impair visual function.

(b) **DEGENERATIONS** of the retina to include macular cysts, holes, and other degenerations (hereditary or acquired degenerative changes) and other conditions affecting the macula. All types of pigmentary degenerations (primary and secondary).

(c) **DETACHMENT** of the retina or history of surgery for same.

(d) **INFLAMMATION** of the retina (retinitis or other inflammatory conditions of the retina to include Coat's disease, diabetic retinopathy, Eales' disease, and retinitis proliferans).

2-2.7.1.6 Optic Nerve. The causes for rejection for appointment shall be:

(a) **CONGENITO-HEREDITARY** conditions of the optic nerve or any other central-nervous-system pathology affecting the efficient function of the optic nerve.

(b) OPTIC NEURITIS, NEURORETINITIS, or secondary optic atrophy resulting therefrom or document history of attacks of retrobulbar neuritis.

(c) OPTIC ATROPHY (primary or secondary)

(d) PAPILLEDEMA.

2-2.7.1.7 Lens. The causes for rejection for appointment shall be:

(a) APHAKIA (unilateral or bilateral).

(b) DISLOCATION, partial or complete of a lens.

(c) OPACITIES of the lens which interfere with vision or which are considered to be progressive.

2-2.7.1.8 Ocular Mobility and Motility. The causes for rejection for appointment shall be:

(a) DIPLOPIA, documented, constant or intermittent from any cause or of any degree interfering with visual function (i.e., may suppress).

(b) DIPLOPIA, MONOCULAR, documented, interfering with visual function.

(c) NYSTAGMUS, with both eyes fixing, congenital or acquired.

(d) STRABISMUS of 40 prism diopters or more, uncorrectable by lenses to less than 40 diopters.

(e) STRABISMUS of any degree accompanied by documented diplopia.

(f) STRABISMUS, surgery for the correction of, within the preceding six months.

2-2.7.1.9 Miscellaneous Defects and Diseases. The causes for rejection for appointment shall be:

(a) Abnormal conditions of the eye or visual fields due to diseases of the central nervous system.

(b) Absence of an eye.

(c) Asthenopia severe.

(d) Exophthalmos, unilateral or bilateral.

(e) Glaucoma, primary or secondary.

(f) Hemianopsia of any type.

(g) Loss of normal pupillary reflex reactions to light or accommodation to distance of Adies syndrome.

(h) Loss of visual fields due to organic disease.

(i) Night blindness associated with objective disease of the eye. Verified congenital night blindness.

(j) Residuals of old contusions, lacerations, penetrations, etc., which impair visual function required for satisfactory performance of fire duty.

(k) Retained intraocular foreign body.

(l) Tumors (*see also 2-2.7.11f*).

(m) Any organic disease of the eye or adnexa not specified above which threatens continuity of vision or impairment of visual function.

2-2.7.2 Vision. The cause for rejection for appointment shall be:

(a) **COLOR VISION.** Failure to identify red, or green, or both.

(b) **STANDARD VISUAL ACUITY.** Standard visual acuity without correction, less than 20/40 in one eye, and 20/100 in the other eye; and with correction, less than 20/20 in one eye, and 20/40 in the other eye.

(c) **NEAR VISUAL ACUITY.** Near vision acuity with correction, less than J6.

(d) **REFRACTIVE ERROR.** Refractive error above 8 diopters spherical equivalent, either plus or minus.

(e) **CORRECTIVE DEVICES.** Complicated impairments requiring contact lens for adequate correction of vision, such as keratoconus, corneal scars, irregular astigmatism; or the comfortable wearing of ordinary glasses (spectacles) without prismatic displacement, ghost images, or similar symptoms.

2-2.8 Genitourinary System.

2-2.8.1 Genitalia. The causes for rejection for appointment shall be:

(a) **BARTHOLINITIS,** Bartholin's cyst.

(b) **CERVICITIS,** acute or chronic manifested by leukorrhea.

(c) **DYSMENORRHEA,** incapacitating to a degree which necessitates recurrent absences of more than a few hours from routine activities.

(d) **ENDOMETRIOSIS,** or confirmed history thereof.

(e) HEMAPHRODITISM.

(f) MENOPAUSAL SYNDROME, either physiologic or artificial, if manifested by more than mild constitutional or mental symptoms, or artificial menopause if less than 13 months have elapsed since cessation of menses. In all cases of artificial menopause, the clinical diagnosis will be reported; if accomplished by surgery, the pathologic report will be obtained and recorded.

(g) MENSTRUAL CYCLE, irregularities of, including menorrhagia, if excessive; metrorrhagia; polymenorrhea; amenorrhea, except as noted in (f) above.

(h) NEW GROWTHS OF THE INTERNAL OR EXTERNAL GENITALIA except single uterine fibroid, subserous, asymptomatic, less than 3 centimeters in diameter, with no general enlargement of the uterus (*see also 2-2.17*).

(i) OOPHORITIS, acute or chronic.

(j) OVARIAN CYSTS, persistent and considered to be of clinical significance.

(k) PREGNANCY.

(l) SALPINGITIS, acute or chronic.

(m) TESTICLE(S), undiagnosed enlargement or mass of testicle or epididymis.

(n) URETHRITIS, acute or chronic, other than gonorrheal urethritis without complications.

(o) UTERUS.

(1) Cervical polyps, cervical ulcer, or marked erosion.

(2) Endocervicitis, more than mild.

(3) Generalized enlargement of the uterus due to any cause.

(4) Malposition of the uterus if more than mildly symptomatic.

(p) VAGINA.

(1) Congenital abnormalities or severe lacerations of the vagina.

(2) Vaginitis, acute or chronic, manifested by leukorrhea.

(q) VARICOCELE OR HYDROCELE, if large or painful.

(r) VULVA.

(1) Leukoplakia.

(2) Vulvitis, acute or chronic.

(s) Major abnormalities and defects of the genitalia such as a change of sex, a history thereof, or complications (adhesions, disfiguring scars, etc.) residual to surgical correction of these conditions.

2-2.8.2 Urinary System (*see also 2-2.5 and 2-2.17*). The causes for rejection for appointment shall be:

(a) **ALBUMINURIA** if persistent or recurrent including so-called orthostatic or functional albuminuria.

(b) **CYSTITIS, chronic.** Individuals with acute cystitis are unacceptable until the condition is cured.

(c) **ENURESIS** determined to be a symptom of an organic defect not amenable to treatment.

(d) **EPISPADIAS OR HYPOSPADIAS** when accompanied by evidence of infection of the urinary tract or if clothing is soiled with voiding.

(e) **HEMATURIA, CYLINDRURIA,** or other findings indicative of renal tract disease.

(f) **INCONTINENCE** of urine.

(g) **KIDNEY.**

(1) Acute or chronic infections of the kidney.

(2) Cystic or polycystic kidney, confirmed history of.

(3) Hydronephrosis or pyonephrosis.

(4) Nephritis, acute or chronic.

(5) Pyelitis, pyelonephritis.

(h) **PROSTATE GLAND,** hypertrophy of, with urinary retention.

(i) **RENAL CALCULUS.**

(1) Substantiated history of bilateral renal calculus at any time.

(2) Verified history of renal calculus at any time with evidence of stone formation within the preceding 12 months, current symptoms or positive X-ray for calculus.

(j) **SKENEITIS.**

(k) **URETHRA.**

(1) Stricture of the urethra.

(2) Urethritis, acute or chronic, other than gonorrheal urethritis without complications.

(l) **URINARY FISTULA.**

(m) OTHER DISEASES AND DEFECTS OF THE URINARY SYSTEM which obviously preclude satisfactory performance of duty or which require frequent and prolonged treatment.

2-2.9 Head and Neck.

2-2.9.1 Head. The causes for rejection for appointment shall be:

(a) ABNORMALITIES which are apparently temporary in character resulting from recent injuries until a period of 3 months has elapsed. These include severe contusions and other wounds of the scalp and cerebral concussion.

(b) DEFORMITIES OF THE SKULL in the nature of depressions, exostoses, etc., of a degree which would prevent the individual from wearing protective breathing apparatus, or fire headgear.

(c) DEFORMITIES OF THE SKULL OF ANY DEGREE associated with evidence of disease of the brain, spinal cord, or peripheral nerves.

(d) LOSS OR CONGENITAL ABSENCE of the bony substance of the skull except that the examiner may find individuals acceptable when —

(1) The area does not exceed 2.5 centimeters square, and does not overlie the motor cortex or a dural sinus.

(2) There is no evidence of alteration of brain function in any of its several spheres (intelligence, judgment, perception, behavior, motor control, sensory function, etc.).

(3) There is no evidence of bone degeneration, disease, or other complications of such a defect.

2-2.9.2 Neck. The causes for rejection for appointment shall be:

(a) CERVICAL RIBS if symptomatic, or so obvious that they are found on routine physical examination. (Detection based primarily on X-ray is not considered to meet this criterion.)

(b) CONGENITAL CYSTS of branchial cleft origin or those developing from the remnants of the thyroglossal duct, with or without fistulous tracts.

(c) FISTULA, chronic draining, of any type.

(d) HEALED TUBERCULOSIS LYMPH NODES when extensive in number or densely calcified.

(e) NONSPASTIC CONTRACTION of the muscles of the neck or cicatricial contracture of the neck to the extent that it interferes with the wearing of a uniform or fire equipment.

(f) SPASTIC CONTRACTION of the muscles of the neck, persistent, and chronic.

(g) TUMOR OF THYROID OR OTHER STRUCTURES OF THE NECK (*see also 2-2.17*).

2-2.10 Heart and Vascular System.

2-2.10.1 Heart. The causes for rejection for appointment shall be:

(a) ALL ORGANIC VALVULAR DISEASES OF THE HAERT, including those improved by surgical procedures.

(b) CORONARY ARTERY DISEASE OR MYOCARDIAL INFARCTION, old or recent or true angina pectoris, at any time.

(c) ELECTROCARDIOGRAPHIC EVIDENCE of major arrhythmias such as —

(1) Atrial tachycardia, flutter, or fibrillation, ventricular tachycardia or fibrillation.

(2) Conduction defects such as first degree atrioventricular block and right bundle branch block. (These conditions occurring as isolated findings are not unfitting when cardiac evaluation reveals no cardiac disease.)

(3) Left bundle branch block, 2d and 3d degree A-V block.

(4) Unequivocal electrocardiographic evidence of old or recent myocardial infarction; coronary insufficiency at rest or after stress; or evidence of heart muscle disease.

(d) HYPERTROPHY OR DILATATION of the heart as evidenced by clinical examination or roentgenographic examination and supported by electrocardiographic examination. Care should be taken to distinguish abnormal enlargement from increased diastolic filling as seen in the well conditioned subject with a sinus bradycardia.

(e) MYOCARDIAL INSUFFICIENCY (congestive circulatory failure, cardiac decompensation) obvious or covert, regardless of cause.

(f) PAROXYSMAL TACHYCARDIA within the preceding five years, or at any time if recurrent or disabling or if associated with electrocardiographic evidence of accelerated A-V conduction (Wolff-Parkinson-White).

(g) PERICARDITIS; ENDOCARDITIS; OR MYOCARDITIS, history or finding of, except for a history of a single acute idiopathic or coxsackie pericarditis with no residuals.

(h) **TACHYCARDIA** persistent with a resting pulse rate of 100 or more, regardless of cause.

2-2.10.2 Vascular System. The causes for rejection for appointment shall be:

(a) **CONGENITAL OR ACQUIRED LESIONS OF THE AORTA AND MAJOR VESSELS**, such as syphilitic aortitis, demonstrable atherosclerosis which intereferes with circulation, congenital or acquired dilatation of the aorta (especially if associated with other features of Marfan's syndrome), and pronounced dilatation of the main pulmonary artery.

(b) **HYPERTENSION** evidenced by preponderant blood pressure readings of 150-mm or more systolic in an individual over 35 years of age or preponderant readings of 140-mm or more systolic in an individual 35 years of age or less. Preponderant diastolic pressure over 90-mm diastolic is cause for rejection at any age.

(c) **MARKED CIRCULATORY INSTABILITY** as indicated by orthostatic hypotension, persistent tachycardia, severe peripheral vasomotor disturbances and sympatheticotonia.

(d) **Peripheral vascular disease** including Raynaud's phenomena, Buerger's disease (thromboangiitis obliterans), erythromelalgia, arteriosclerotic and diabetic vascular disease. Special tests will be employed in doubtful cases.

(e) **THROMBOPHLEBITIS.**

(1) History of thrombophlebitis with persistent thrombus or evidence of circulatory obstruction or deep venous incompetence in the involved veins.

(2) Recurrent thrombophlebitis.

(f) **VARICOSE VEINS**, if more than mild, or if associated with edema, skin ulceration, or residual scars from ulceration.

2-2.10.3 Miscellaneous. The causes for rejection for appointment shall be:

(a) **ANEURYSM OF THE HEART OR MAJOR VESSEL**, congenital or acquired.

(b) **HISTORY AND EVIDENCE OF A CONGENITAL ABNORMALITY** has been treated by surgery but with residual abnormalities or complications, *for example*: Patent ductus arteriosus with residual cardiac enlargement or pulmonary hypertension; resection of a coarctation of the aorta without a graft when there are other cardiac abnormalities or complications; closure of a secundum type atrial

septal defect when there are residual abnormalities or complications.

(c) MAJOR CONGENITAL ABNORMALITIES AND DEFECTS OF THE HEART AND VESSELS unless satisfactorily corrected without residuals or complications. Uncomplicated dextrocardia and other minor asymptomatic anomalies are acceptable.

(d) SUBSTANTIATED HISTORY OF RHEUMATIC FEVER OR CHOREA within the previous two years, recurrent attacks of rheumatic fever or chorea at any time, or with evidence of residual cardiac damage.

2-2.11 Lungs and Chest Wall.

2-2.11.1 General. Until re-examination indicates complete recovery without disqualifying sequelae, the causes for rejection for appointment shall be:

- (a) ABNORMAL ELEVATION OF THE DIAPHRAGM on either side.
- (b) ACUTE ABSCESS of the lung.
- (c) ACUTE BRONCHITIS.
- (d) ACUTE FIBRINOUS PLEURISY, associated with acute nontuberculous pulmonary infection.
- (e) ACUTE MYCOTIC DISEASE of the lung such as coccidioidomycosis and histoplasmosis.
- (f) ACUTE NONTUBERCULOUS PNEUMONIA.
- (g) FOREIGN BODY IN TRACHEA OF BRONCHUS.
- (h) FOREIGN BODY OF THE CHEST WALL causing symptoms.
- (i) LOBECTOMY, history of, for a nontuberculous non-malignant lesion with residual pulmonary disease. Removal of more than one lobe is cause for rejection regardless of the absence of residuals.
- (j) OTHER TRAUMATIC LESIONS of the chest or its contents/with residual physiologic abnormalities.
- (k) PNEUMOTHORAX, regardless of etiology or history thereof.
- (l) RECENT FRACTURE of ribs, sternum, clavicle, or scapula.
- (m) SIGNIFICANT ABNORMAL FINDINGS on physical examination of the chest.

2-2.11.2 Tuberculous Lesion (*see also 2-2.16.1*). The causes for rejection for appointment shall be:

- (a) ACTIVE TUBERCULOSIS in any form or location.

(b) **PULMONARY TUBERCULOSIS**, active within the past five years.

(c) **SUBSTANTIATED HISTORY OR X-RAY FINDINGS** of pulmonary tuberculosis of more than minimal extent at any time; or minimal tuberculosis not treated with a full year of approved chemotherapy or combined chemotherapy and surgery; or a history of pulmonary tuberculosis with reactivation, relapse, or other evidence of poor host resistance.

2-2.11.3 Nontuberculous Lesions. The causes for rejection for appointment shall be:

(a) **ACUTE MASTITIS**, chronic cystic mastitis, if more than mild.

(b) **BRONCHIAL ASTHMA**, except for childhood asthma with a trustworthy history of freedom from symptoms since the 12th birthday.

(c) **BRONCHITIS**, chronic with evidence of pulmonary function disturbance.

(d) **BRONCHIECTASIS**.

(e) **BRONCHOPLEURA FISTUAL**.

(f) **BULLOUS OR GENERALIZED PULMONARY EMPHYSEMA**.

(g) **CHRONIC ABSCESS OF LUNG**.

(h) **CHRONIC FIBROUS PLEURITIS** of sufficient extent to interfere with pulmonary function or obscure the lung field in the roentgenogram.

(i) **CHRONIC MYCOTIC DISEASES** of the lung including coccidioidomycosis; residual cavitation or more than a few small-sized inactive and stable residual nodules demonstrated to be due to mycotic disease.

(j) **EMPHYEMA**, residual sacculation or unhealed sinuses of chest wall following operation for empyema.

(k) **EXTENSIVE PULMONARY FIBROSIS** from any cause, producing dyspnea on exertion.

(l) **FOREIGN BODY OF THE LUNG OR MEDIASTINUM** causing symptoms or active inflammatory reaction.

(m) **MULTIPLE CYSTIC DISEASE** of the lung or solitary cyst which is large and incapacitating.

(n) **NEW GROWTH ON BREAST, HISTORY OF MASTECTOMY**.

(o) **OSTEOMYELITIS** of rib, sternum, clavicle, scapula, or vertebra.

(p) PLEURISY with effusion of unknown origin within the preceding five years.

(q) SARCOIDOSIS (*see also 2-2.16.1*).

(r) SUPPURATIVE PERIOSTITIS of rib, sternum, clavicle, scapula, or vertebra.

2-2.12 Mouth, Nose, Pharynx, Trachea, Esophagus, and Larynx.

2-2.12.1 Mouth. The causes for rejection for appointment shall be:

(a) HARD PALATE, perforation of.

(b) HARELIP, unless satisfactorily repaired by surgery.

(c) LEUKOPLAKIA, if severe.

(d) RANULA, if extensive (*for other tumors see 2-2.17*).

2-2.12.2 Nose. The causes for rejection for appointment shall be:

(a) ALLERGIC MANIFESTATIONS.

1. Chronic atrophic rhinitis.

2. Hay fever if severe; or if not controllable by anti-histamines or by desensitization, or both.

(b) CHOANA, ATRESIA, OR STENOSIS of, if symptomatic.

(c) NASAL SEPTUM, perforation of:

1. Associated with interference of function, ulceration or crusting, and when the result of organic disease.

2. If progressive.

3. If respiration is accompanied by a whistling sound.

(d) SINUSITIS, acute.

(e) SINUSITIS, chronic, when more than mild:

1. Evidenced by any of the following: Chronic purulent nasal discharge, large nasal polyps, hyperplastic changes of the nasal tissues, or symptoms requiring frequent medical attention.

2. Confirmed by transillumination or X-ray examination or both.

2-2.12.3 Pharynx, Trachea, Esophagus, and Larynx. The causes for rejection for appointment shall be:

(a) ESOPHAGUS, organic disease of, such as ulceration,

varices, achalasia — if confirmed by appropriate X-ray or esophagoscopic examinations.

(b) LARYNGEAL PARALYSIS, sensory or motor, due to any cause.

(c) LARYNX, organic disease of, such as neoplasm, polyps, granuloma, ulceration, and chronic laryngitis.

(d) PLICA DYSPHONIA VENTRICULARIS.

(e) TRACHEOSTOMY OF TRACHEAL FISTULA.

2-2.12.4 Other Defects and Diseases. The causes for rejection for appointment shall be:

(a) APHONIA.

(b) DEFORMITIES OR CONDITIONS OF THE MOUTH, THROAT, PHARYNX, LARYNX, ESOPHAGUS, AND NOSE which interfere with mastication and swallowing of ordinary food, with speech, or with breathing.

(c) DESTRUCTIVE SYPHILITIC DISEASE OF THE MOUTH, NOSE, THROAT, LARYNX, OR ESOPHAGUS (*see also 2-2.18*).

(d) PHARYNGITIS AND NASOPHARYNGITIS, chronic, with positive history and objective evidence, if of such a degree as to result in excessive time lost in the fire environment.

2-2.13 Neurological Disorders.

2-2.13.1 Degenerative Disorders. The causes for rejection for appointment shall be:

(a) CEREBELLAR and FRIEDREICH'S ATAXIA.

(b) CEREBRAL ARTERIOSCLEROSIS SYMPTOMATIC

(c) ENCEPHALOMYELITIS, residuals of, which preclude the satisfactory performance of fire duties.

(d) HUNTINGTON'S CHOREA.

(e) MULTIPLE SCLEROSIS.

(f) MUSCULAR ATROPHIES and dystrophies of any type.

2-2.13.2 Miscellaneous. The causes for rejection for appointment shall be:

(a) Congenital malformations if associated with neurological manifestations and meningocele, even if uncomplicated.

(b) Migraine when frequent and incapacitating.

(c) Paralysis or weakness, deformity, discoordination, pain, disturbances of consciousness, disturbances of sensation, or per-

sonality abnormalities regardless of cause, which are of such a nature or degree as to preclude the satisfactory performance of fire duties.

(d) Tremors, spasmodic torticollis, athetosis or other abnormal movements more than mild.

2-2.13.3 Neurosyphilis. The causes for rejection for appointment shall be:

Any form of neurosyphilis, (general paresis, tabes dorsalis, meningovascular syphilis).

2-2.13.4 Paroxysmal Convulsive Disorders. The causes for rejection for appointment shall be:

Disturbances of consciousness, all forms of psychomotor, focal, petit mal, or grand mal epilepsy or history thereof except for seizures associated with toxic states or fever during childhood up to the age of 12.

2-2.13.5 Peripheral nerve disorder. The causes for rejection for appointment shall be:

(a) Polyneuritis.

(b) MONONEURITIS or neuralgia which is chronic or recurrent and of an intensity that is periodically incapacitating.

(c) NEUROFIBROMATOSIS.

2-2.13.6 Spontaneous Subarachnoid Hemorrhage. The causes for rejection for appointment shall be:

Verified history of, unless cause has been surgically corrected.

2-2.14 Skin and Cellular Tissues. The causes for rejection for appointment shall be:

(a) ACNE. Severe, when the face is markedly disfigured, or when extensive involvement of the neck, shoulders, chest, or back would be aggravated by or interfere with the wearing of fire equipment.

(b) ATOPIC DERMATITIS, with active or residual lesions in characteristic areas (face and neck, antecubital and popliteal fossae, occasionally wrists and hands), or documented history thereof.

(c) CYSTS.

1. Cysts, other than pilonidal. Of such a size or location as to interfere with the normal wearing of fire fighting equipment.

(2) Cysts, pilonidal. Pilonidal cysts, if evidenced by the presence of a tumor mass or a discharging sinus.

- (d) DERMATITIS FACTITIA.
- (e) DERMATITIS HERPETIFORMIS.
- (f) ECZEMA. Any type which is chronic and resistant to treatment.
- (g) ELEPHANTIASIS OR CHRONIC LYMPHEDEMA.
- (h) EPIDERMOLYSIS BULLOSA; PEMPHIGUS.
- (i) FUNGUS INFECTIONS, systemic or superficial types: If extensive and not amenable to treatment.
- (j) FURUNCULOSIS. Extensive, recurrent, or chronic.
- (k) HYPERHIDROSIS of hands or feet: chronic or severe.
- (l) ICHTHYOSIS. Severe.
- (m) LEPROSY. Any type.
- (n) LEUKEMIA CUTIS; MYCOSIS FUNGOIDES; HODGKIN'S DISEASE.
- (o) LICHEN PLANUS.
- (p) LUPUS ERYTHEMATOSUS (acute, subacute, or chronic) or any other dermatosis aggravated by sunlight.
- (q) NEUROFIBROMATOSIS (Von Recklinghausen's disease).
- (r) NEVI OR VASCULAR TUMORS: If extensive, unsightly, or exposed to constant irritation.
- (s) PSORIASIS or a verified history thereof.
- (t) RADIODERMATITIS.
- (u) SCARS which are so extensive, deep, or adherent that they may interfere with the wearing of fire equipment, or that show a tendency to ulcerate.
- (v) SCLERODERMA. Diffuse type.
- (w) TUBERCULOSIS (*see also 2-2.16.1*).
- (x) URTICARIA. Chronic.
- (y) WARTS, PLANTAR, which have materially interfered with the following of a physically active vocation.
- (z) XANTHOMA. If disabling or accompanied by hypercholesterolemia or hyperlipemia.
- (aa) ANY OTHER CHRONIC SKIN DISORDER of a degree or nature which requires frequent outpatient treatment or hospitalization, or interferes with the satisfactory performance of duty.

2-2.15 Spine, Scapulae, Ribs, and Sacroiliac Joints.

2:2.15.1 Spine and Sacroiliac Joints (*see also 2-2.6*). The causes for rejection for appointment shall be:

(a) **ARTHRITIS** (*see also 2-2.6.3a*).

(b) **COMPLAINT OF DISEASE OR INJURY OF THE SPINE OR SACROILIAC JOINTS** either with or without objective signs or symptoms which have prevented the individual from successfully following a physically active vocation. Substantiation or documentation of the complaint without symptoms and objective signs is required.

(c) **DEVIATION OR CURVATURE** of spine from normal alignment, structure, or function (scoliosis, kyphosis, or lordosis, spina bifida acculta, spondylolysis, etc.) if —

(1) Mobility and weight-bearing power is poor.

(2) More than moderate restriction of normal physical activities is required.

(3) Of a degree which will interfere with the wearing of fire equipment.

(4) Symptomatic, associated with positive physical finding(s) demonstrable by X-ray.

(d) **DISEASES OF THE LUMBOSACRAL OR SACROILIAC JOINTS** of a chronic type and obviously associated with pain referred to the lower extremities, muscular spasm, postural deformities and limitation of motion in the lumbar region of the spine.

(e) **GRANULOMATOUS DISEASES** either active or healed.

(f) **HEALED FRACTURE OF THE SPINE OR PELVIC BONES** with associated symptoms which have prevented the individual from following a *physically* active vocation, or which preclude the satisfactory performance of fire fighting duties.

(g) **RUPTURED NUCLEUS PULPOSUS** (herniation of intervertebral disk) or history of operation for this condition.

(h) **SPONDYLOLYSIS OR SPONDYLOLISTHESIS** that is symptomatic or is likely to interfere with performance of duty or is likely to require assignment limitations.

2-2.15.2 Scapulae, Clavicles, and Ribs (*see also 2-2.6.3*). The causes for rejection for appointment shall be:

(a) **FRACTURES**, until well healed, and until determined that the residuals thereof will not preclude the satisfactory performance of fire fighting duties.

(b) INJURY WITHIN THE PRECEDING six weeks, without fracture, or dislocation, of more than a minor nature.

(c) OSTEOMYELITIS of rib, sternum, clavicle, scapula, or vertebra.

(d) Prominent scapulae interfering with function or with the wearing of fire equipment.

2-2.16 Systemic Diseases and Miscellaneous Conditions and Defects.

2-2.16.1 Systemic Diseases. The causes for rejection for appointment shall be:

(a) DERMATOMYOSITIS.

(b) LUPUS ERYTHEMATOSUS; acute, subacute, or chronic.

(c) PROGRESSIVE SYSTEMIC SCLEROSIS.

(d) REITER'S DISEASE

(e) SARCOIDOSIS.

(f) SCLERODERMA, diffuse type.

(g) TUBERCULOSIS:

(1) Active tuberculosis in any form or location.

(2) Pulmonary tuberculosis.

(3) Confirmed history of tuberculosis of a bone or joint, genitourinary organs, intestines, peritoneum or mesenteric glands at any time.

(4) Meningeal tuberculosis; disseminated tuberculosis.

2-2.16.2 General and Miscellaneous Conditions and Defects. The causes for rejection for appointment shall be:

(a) ALLERGIC MANIFESTATIONS.

(1) Allergic rhinitis (hay fever) (*see also 2-2.12.2*).

(2) Asthma (*see also 2-2.13*).

(3) Allergic dermatoses (*see also 2-2.14*).

(4) Visceral, abdominal, and cerebral allergy, if severe or not responsive to treatment.

(b) ANY ACUTE PATHOLOGICAL CONDITION, including acute communicable diseases, until recovery has occurred without sequelae.

(c) ANY DEFORMITY WHICH IMPAIRS GENERAL FUNCTIONAL ABILITY to such an extent as to prevent satisfactory performance of duty.

(d) CHRONIC METALLIC POISONING, especially beryllium, manganese, and mercury. Undesirable residuals from lead, arsenic, or silver poisoning make the examinee medically unacceptable.

(e) COLD INJURY, residuals of (*example*: frostbite, chilblain, immersion foot, or trench foot) such as deep seated ache, paresthesia, hyperhidrosis, easily traumatized skin, cyanosis, amputation of any digit, or ankylosis.

(f) POSITIVE TESTS FOR SYPHILIS with negative TPI test unless there is a documented history of adequately treated lues or any of the several conditions which are known to give a false-positive S.T.S. (vaccinia, infectious hepatitis, immunizations, atypical pneumonia, etc.) or unless there has been a reversal to a negative S.T.S. during an appropriate followup period (3 to 6 months).

(g) FILARIASIS; TRYPANOSOMIASIS; AMEBIASIS; SCHISTOSOMIASIS; uncinariasis (hookworm) associated with anemia, malnutrition, etc., if more than mild, and other similar worm or animal parasitic infestations, including the carrier states thereof.

(h) HEAT PYREXIA (heatstroke, sunstroke, etc.): Documented evidence of predisposition (includes disorders of sweat mechanism and previous serious episode), recurrent episodes requiring medical attention, or residual injury resulting therefrom (especially cardiac, cerebral, hepatic, and renal).

(i) INDUSTRIAL SOLVENT and other chemical intoxication, chronic, including carbon bisulfide, trichlorethylene, carbon tetrachloride, and methyl cellosolve.

(j) MYCOTIC INFECTION of internal organs.

(k) MYOSITIS OR FIBROSITIS, severe, chronic.

(l) RESIDUALS OF TROPICAL FEVERS and various parasitic or protozoal infestations which in the opinion of the medical examiner preclude the satisfactory performance of duty.

2-2.17 Tumors and Malignant Diseases.

2-2.17.1 Benign Tumors. The causes for rejection for appointment shall be:

(a) ANY TUMOR OF THE —

(1) Auditory canal, if obstructive.

(2) Eye or orbit.

(3) Kidney, bladder, testicle, or penis.

(4) Central nervous system and its membranous coverings unless five years after surgery and no otherwise disqualifying residuals of surgery of original lesion.

(b) **BENIGN TUMORS OF THE ABDOMINAL WALL** if sufficiently large to interfere with fire duty.

(c) **BENIGN TUMORS OF BONE** likely to continue to enlarge, be subjected to trauma during service, or show malignant potential.

(d) **BENIGN TUMORS OF THE THYROID** or other structures of the neck, including enlarged lymph nodes, if the enlargement is of such degree as to interfere with the wearing of fire equipment.

(e) **TONGUE, BENIGN TUMOR OF**, if it interferes with function.

(f) **BREAST, THORACIC CONTENTS, OR CHEST WALL**, tumors of, other than fibromata lipomata, and inclusion of sebaceous cysts which do not interfere with fire fighting duties.

(g) **FOR TUMORS OF THE INTERNAL OR EXTERNAL FEMALE GENITALIA.**

2-2.17.2 Malignant Diseases and Tumors. The causes for rejection for appointment shall be:

(a) **LEUKEMIA**, acute or chronic.

(b) **MALIGNANT LYMPHOMATA.**

(c) **MALIGNANT TUMOR OF ANY KIND**, at any time, substantiated diagnosis of, even though surgically removed, confirmed by accepted laboratory procedures, except as noted in 2-2.7.1.1(f).

2-2.18 Venereal Diseases. In general, the finding of acute, uncomplicated venereal disease which can be expected to respond to treatment is not a cause for medical rejection for fire service. The causes for rejection for appointment shall be:

(a) **CHRONIC VENEREAL DISEASE** which has not satisfactorily responded to treatment. The finding of a positive serologic test for syphilis following adequate treatment of syphilis is not in itself considered evidence of chronic venereal disease which has not responded to treatment (*see also 2-2.16.2f*).

(b) **COMPLICATIONS AND PERMANENT RESIDUALS** of venereal disease if progressive, of such nature as to interfere with the satisfactory performance of duty, or if subject to aggravation by fire fighting duties.

(c) **NEUROSYPHILIS** (*see also 2-2.13.3*).

2-3 Minimum Physical Fitness Requirements

***2-3.1** The candidate, after successfully completing the medical examination and with written authorization of the examining physician, shall run one and one-half (1.5) miles within twelve (12) minutes.

***2-3.2** The candidate will perform twenty-five (25) bent-knee sit-ups within ninety (90) seconds.

***2-3.3** The candidate shall, from a completely extended arm position, pull the body upward so as to chin the horizontal bar being grasped by the hands, palms away, a total of five (5) consecutive times.

***2-3.4** The candidate shall, from a horizontal position, successfully accomplish ten (10) push-ups as prescribed by the authority having jurisdiction.

***2-3.5** The candidate, given a beam secured to a level floor and measuring twenty (20) feet long by three (3) to four (4) inches wide, and given a length of fire hose weighing at least twenty (20) pounds, shall walk the length of the beam, carrying the length of hose, without falling off, or stepping off the beam.

***2-3.6** The candidate, given a weight of one hundred twenty-five (125) pounds, shall lift the weight from the floor and carry the weight one hundred (100) feet without stopping.

***2-3.7** The candidate, starting from an erect position with feet apart the distance closely approximating shoulder width, shall move a fifteen (15) pound weight in the following manner: bend over, grasp the weight with both hands while it is at a point on the floor between the feet, and lift weight to waist level, then place the weight on the floor approximately twelve (12) inches outside the left foot, and without letting go, raise the weight to waist level and touch it to the floor about twelve (12) inches outside the right foot. The weight shall then be moved alternately in this fashion from left foot, to waist level, to right; right to waist level to left until it has been moved seven (7) times in each direction with the total horizontal distance of travel being at least twenty-four (24) inches more than the space between the feet for each of the fourteen (14) moves. This shall be done in less than thirty-five (35) seconds.

Chapter 3 Fire Fighter I

3-1 General.

***3-1.1** The fire fighter shall demonstrate a knowledge of the organization of the fire department.

3-1.2 The fire fighter shall demonstrate knowledge as to the size of the fire department, the scope of its operation, and the standard operational procedures.

3-1.3 The fire fighter shall demonstrate knowledge of the fire department rules and regulations that apply to the position of fire fighter.

3-2 Forcible Entry.

***3-2.1** The fire fighter shall identify and demonstrate the use of each type of forcible entry tool used by the authority having jurisdiction.

3-2.2 The fire fighter shall demonstrate the method and procedure of properly cleaning, maintaining, and inspecting each type of forcible entry tool and equipment.

3-3 Protective Breathing Apparatus.

3-3.1 The fire fighter shall name at least four hazardous respiratory environments encountered in fire fighting.

***3-3.2** The fire fighter shall demonstrate the use, in a dense smoke environment, of all types of protective breathing apparatus used by the authority having jurisdiction.

3-3.3 The fire fighter shall explain the physical requirements of the wearer, the limitations of the protective breathing apparatus, and the safety features of all types of protective breathing apparatus used by the authority having jurisdiction.

3-3.4 The fire fighter shall demonstrate donning breathing apparatus while wearing protective clothing.

3-3.5 The fire fighter shall demonstrate that the protective breathing apparatus is in a safe condition for immediate use.

3-3.6 The fire fighter shall demonstrate proper procedure for cleaning and sanitizing protective breathing apparatus for future use.

3-4 First Aid.

***3-4.1** The fire fighter shall demonstrate a primary survey for life-threatening injuries.

***3-4.2** The fire fighter shall demonstrate procedures for determining whether or not a victim has an open airway.

3-4.3 The fire fighter shall demonstrate procedures for establishing an open airway in a non-breathing person.

***3-4.4** The fire fighter shall demonstrate mouth-to-mouth and mouth-to-nose resuscitation.

***3-4.5** The fire fighter shall demonstrate oronasal ventilation.

3-4.6 The fire fighter shall identify the three signs of cardiac arrest.

***3-4.7** The fire fighter shall demonstrate cardiopulmonary resuscitation.

3-4.8 The fire fighter shall identify three types of external bleeding, and identify the characteristics of each type.

3-4.9 The fire fighter shall demonstrate techniques for controlling external bleeding.

3-5 Ropes.

3-5.1 The fire fighter, when given the name, picture, or actual knot used by the department, shall identify it, and describe the purpose for which it would be used.

3-5.2 The fire fighter, when given the proper size and amount of rope, shall demonstrate tying a bowline knot, a clove hitch, and a becket or sheet bend.

3-5.3 The fire fighter, given the proper rope, shall demonstrate the bight, loop, round turn, and half hitch as used in tying knots and hitches.

3-5.4 The fire fighter, using an approved knot, shall hoist any selected forcible entry tool, ground ladder, or appliance to a height of at least 20 feet.

3-5.5 The fire fighter shall demonstrate the methods of inspecting, cleaning, and maintaining rope.

3-6 Salvage.

3-6.1 The fire fighter shall identify and describe the purpose of salvage, and its value to the public and the fire department.

3-6.2 The fire fighter, as an individual and as a member of a team, shall demonstrate folds and rolls of salvage covers as used by the authority having jurisdiction.

3-6.3 The fire fighter, as an individual and as a member of a team, shall demonstrate salvage cover throws as used by the authority having jurisdiction.

3-6.4 The fire fighter shall demonstrate the methods of inspection, cleaning, and maintaining salvage equipment.

3-7 Fire Hose, Nozzles, and Appliances.

***3-7.1** The fire fighter, given an approved fire department pumper, shall identify the sizes, types, amounts, and use of hose carried on that pumper.

3-7.2 The fire fighter, given an approved fire department pumper, shall identify the use of hose adaptors, and hose appliances carried on that pumper.

3-7.3 The fire fighter, given the necessary equipment and operating as an individual and as a member of a team, shall advance dry hose lines of two different sizes, both of which shall be 1½-inch or larger, from a pumper:

- (a) into a structure
- (b) up a ladder into an upper floor window
- (c) up an inside stairway to an upper floor
- (d) up an outside stairway to an upper floor
- (e) down an inside stairway to a lower floor
- (f) down an outside stairway to a lower floor
- (g) to an upper floor by hoisting.

3-7.4 The fire fighter, given the necessary equipment and operating as an individual and as a member of a team, shall advance charged attack lines of two different sizes, both of which shall be 1½-inch or larger, from a pumper:

- (a) into a structure
- (b) up a ladder into an upper floor window
- (c) up an inside stairway to an upper floor
- (d) up an outside stairway to an upper floor
- (e) down an inside stairway to a lower floor
- (f) down an outside stairway to a lower floor
- (g) to an upper floor by hoisting

3-7.5 The fire fighter shall demonstrate cleaning fire hose, couplings, and nozzles; and inspecting for damage.

3-7.6 The fire hydrant shall demonstrate the connection of fire hose to a hydrant, and the operation of fully opening and closing the hydrant.

3-7.7 The fire fighter shall demonstrate the loading of fire hose on fire apparatus as prescribed by the authority having jurisdiction; and shall also identify the purpose of at least three types of hose loads and finishes.

3-7.8 The fire fighter shall demonstrate at least three hose rolls as specified by the authority having jurisdiction.

3-7.9 The fire fighter shall demonstrate at least two hose carries as specified by the authority having jurisdiction.

3-7.10 The fire fighter shall demonstrate at least two hose drags as specified by the authority having jurisdiction.

3-7.11 The fire fighter shall demonstrate at least two methods of coupling and uncoupling fire hose as specified by the authority having jurisdiction.

3-7.12 The fire fighter, given the necessary equipment and operating as an individual and as a member of a team, shall demonstrate the method of working from a ladder with charged attack lines of two different sizes, both of which shall be 1½-inch or larger, from a pumper.

3-7.13 The fire fighter shall demonstrate the methods of carrying hose into a building to be connected to a standpipe, and the methods of advancing a hose line from a standpipe, as specified by the authority having jurisdiction.

3-7.14 The fire fighter shall demonstrate the methods for extending a hose line, and replacing a burst section as specified by the authority having jurisdiction.

3-8 Fire Streams.

3-8.1 The fire fighter shall define a fire stream.

***3-8.2** The fire fighter, given the necessary resources, shall manipulate the nozzle so as to attack at least two live fires including: a Class A fire and a Class B fire.

3-8.3 The fire fighter shall define water hammer and at least one method for its prevention.

3-8.4 The fire fighter shall demonstrate how to properly open and close a nozzle.

3-9 Ladders.

3-9.1 The fire fighter shall identify all ladders specified by the authority having jurisdiction, and describe their uses.

3-9.2 The fire fighter, operating as an individual and as a member of a team, shall demonstrate the following ladder carries, the method of carry being specified by the authority having jurisdiction:

- (a) one person carry
- (b) two person carry
- (c) three person carry
- (d) four person carry
- (e) five person carry
- (f) six person carry.

3-9.3 The fire fighter, operating as an individual and as a member of a team, shall raise every type and size of ground ladder as specified by the authority having jurisdiction; and use several different raises for each ladder.

***3-9.4** The fire fighter shall correctly climb the full length of every type of ground and aerial ladder, specified by the authority having jurisdiction.

3-9.5 The fire fighter shall correctly climb the full length of every type of ground and aerial ladder, as specified by the authority having jurisdiction, carrying fire fighting tools or equipment while ascending and descending the ladder.

***3-9.6** The fire fighter shall correctly climb the full length of every type of ground and aerial ladder as specified by the authority having jurisdiction, and bring an "injured person" down the ladders.

3-9.7 The fire fighter shall demonstrate the methods of working from ground or aerial ladders with tools and appliances, with and without a life belt, as specified by the authority having jurisdiction.

3-9.8 The fire fighter shall demonstrate the proper procedure for cleaning ladders.

3-10 Ventilation.

3-10.1 The fire fighter shall define the principles of ventilation, and identify the advantages and effects of ventilation.

3-10.2 The fire fighter shall identify the dangers present, and precautions to be taken in performing ventilation.

***3-10.3** The fire fighter shall demonstrate opening various types of windows from inside, outside; with, and without the use of fire department tools.

***3-10.4** The fire fighter shall demonstrate breaking window or door glass, and removing obstruction, without harm to himself or others.

3-10.5 The fire fighter, given a fire axe, shall demonstrate the ventilation of a roof and a floor.

3-10.6 The fire fighter shall identify and explain the theory of a "back draft explosion."

3-11 Inspection.

3-11.1 The fire fighter shall demonstrate, in writing, knowledge of the common causes of fires and their prevention.

3-11.2 The fire fighter shall demonstrate a knowledge of the fire inspection procedures used by the fire department.

3-11.3 The fire fighter shall describe the importance of public relations relative to the inspection programs of the fire department.

3-11.4 The fire fighter shall identify dwelling inspection procedures established by the authority having jurisdiction.

3-12 Rescue.

3-12.1 The fire fighter shall demonstrate the removal of injured persons from the immediate hazard by the use of carries, drags, and stretchers.

3-12.2 The fire fighter shall demonstrate the procedure for searching for victims in burning, smoke-filled buildings, or other hostile environments.

***3-12.3** The fire fighter shall demonstrate and explain the uses of a life belt.

3-12.4 The fire fighter shall demonstrate the use of the life net used by the authority having jurisdiction.

3-13 Sprinklers.

3-13.1 The fire fighter shall identify the fire department sprinkler connection, and water motor alarm.

3-13.2 The fire fighter shall connect hose line(s) to a fire department connection of an automatic sprinkler system.

3-13.3 The fire fighter, when given a sprinkler head in serviceable use, shall demonstrate knowledge of how the automatic sprinkler head opens and releases water.

3-13.4 The fire fighter, when given the necessary equipment, shall effect a temporary stop of the flow of water from a sprinkler head.

3-14 Fire Alarm and Communications.

3-14.1 The fire fighter shall demonstrate knowledge of the correct procedure for a citizen to report a fire, or other emergencies.

3-14.2 The fire fighter shall demonstrate correctly receiving an alarm or a report of an emergency, and initiate proper action.

3-14.3 The fire fighter shall describe the purpose and functioning of all alarm receiving instruments, and personnel alerting equipment provided in the fire station.

3-14.4 The fire fighter shall demonstrate station watch duties as assigned by the authority having jurisdiction.

3-14.5 The fire fighter shall demonstrate any traffic control devices installed in the fire station to facilitate the response of apparatus.

3-14.6 The fire fighter shall demonstrate procedures required for receipt and processing of business and personal calls.

3-14.7 The fire fighter shall demonstrate prescribed fire department radio procedures.

3-14.8 The fire fighter shall demonstrate policy and procedures concerning the ordering and transmitting of multiple alarms of fire and calls for special assistance.

3-14.9 The fire fighter shall identify and explain all fire alarm signals, including multiple alarm, and special signals, governing the movements of fire apparatus; and the action to be taken upon the receipt of each signal.

3-15 Safety.

3-15.1 The fire fighter shall identify and explain dangerous building conditions created by fire or disaster, and precautions to protect other fire fighters as prescribed by the authority having jurisdiction.

3-15.2 The fire fighter shall demonstrate procedures for action when trapped or disoriented in a fire situation, or in a hostile environment.

3-15.3 The fire fighter shall demonstrate knowledge of safety procedures to be followed in the use of all equipment and apparatus that the fire fighter may be called upon to use.

3-15.4 The fire fighter shall demonstrate the correct use of all safety equipment to be used in electrical emergencies as prescribed by the authority having jurisdiction.

3-16 Fire Behavior.

3-16.1 The fire fighter shall demonstrate the knowledge of fire behavior including the chemistry of fire, flame spread, flash over, phases of burning, classes of fire, and heat transfer.

Chapter 4 Fire Fighter II

4-1 General.

4-1.1 The fire fighter shall demonstrate responsibilities in determining the point of origin, cause, and protection of evidence in fires of a suspicious nature in accordance with authority having jurisdiction.

4-1.2 The fire fighter shall demonstrate shutting off the gas services to a building.

4-1.3 The fire fighter shall demonstrate shutting off electrical service to a building.

4-2 Forcible Entry.

***4-2.1** The fire fighter shall identify materials and construction features of doors, windows, roofs, floors, and vertical barriers found in the area of the authority having jurisdiction; and shall also identify dangers associated with each in an emergency situation.

4-2.2 The fire fighter shall demonstrate the method and procedure of forcible entry through any door, window, ceiling, roof, floor, or vertical barrier specified by the authority having jurisdiction.

4-3 Protective Breathing Apparatus.

4-3.1 The fire fighter shall demonstrate the correct procedure for daily inspection and maintenance of the breathing apparatus used by the authority having jurisdiction.

4-3.2 The fire fighter, given each type of breathing apparatus used by the authority having jurisdiction, shall demonstrate the correct procedure for recharging.

***4-3.3** The fire fighter shall demonstrate the correct use of emergency procedures including breathing apparatus to assist other fire fighters, conservation of air and restrictive use of by-pass valves.

4-4 First Aid.

4-4.1 The fire fighter shall identify four sources from which information might be gathered pertaining to the nature of an accident victim's injuries.

4-4.2 The fire fighter, given specified situations, shall identify what injuries might be suspected from observation of the injury-producing mechanisms, in addition to those injuries that are obvious.

***4-4.3** The fire fighter, given a victim, shall conduct a secondary survey for other than life-threatening injuries.

4-4.4 The fire fighter shall identify the symptoms of internal bleeding.

4-4.5 The fire fighter shall demonstrate caring for a person with known or suspected internal bleeding.

4-4.6 The fire fighter shall list the classes of thermal burns according to severity, and shall also explain the physical characteristics of each class.

4-4.7 The fire fighter, given a specified situation, shall demonstrate the emergency care procedure indicated, and shall explain the significance of each step.

4-4.8 The fire fighter shall identify the emergency care for chemical burns, including chemical burns of the eyes.

4-4.9 The fire fighter shall identify the types of fractures and describe the differences.

4-4.10 The fire fighter shall identify three general symptoms of fractures.

4-4.11 The fire fighter, given an identified fracture, shall demonstrate the emergency care necessary to transport the victim.

4-4.12 The fire fighter shall demonstrate and explain the anatomical process of breathing.

4-4.13 The fire fighter shall demonstrate the heart-lung-brain relationship as it affects life and shall explain what occurs when an airway obstruction is not corrected.

4-4.14 The fire fighter shall demonstrate cardiopulmonary resuscitation employing the two-person technique.

4-4.15 The fire fighter shall identify symptoms of traumatic shock.

4-4.16 The fire fighter shall demonstrate how to treat traumatic shock.

4-5 Ropes.

4-5.1 The fire fighter, when given a simulated fire fighting or rescue task, shall select the appropriate size, strength, and length rope for the task.

4-5.2 The fire fighter shall select and tie a rope between two objects at least 15 feet apart, using an approved hitch or knot, that will support the weight of a fire fighter on the rope.

4-5.3 The fire fighter shall demonstrate the use of rope, using approved knots and hitches, to tie ladders, hose, and other equipment, so as to secure them to immovable objects.

4-6 Salvage.

4-6.1 The fire fighter, given salvage equipment, and operating as an individual and as a member of a team, shall demonstrate the construction and use of a water chute.

4-6.2 The fire fighter, given salvage equipment, and operating as an individual and as a member of a team, shall demonstrate the construction and use of a water catch-all.

4-6.3 The fire fighter, given salvage equipment but excluding salvage covers, shall demonstrate the removal of debris, and removal and routing of water from a structure.

4-6.4 The fire fighter, given the necessary equipment, shall demonstrate the covering or closing of openings made during fire fighting operations.

4-7 Fire Hose, Nozzles, and Appliances.

4-7.1 The fire fighter, given an approved fire department pumper, shall identify, select, and demonstrate the use of any nozzle carried on that pumper.

4-7.2 The fire fighter, given the necessary equipment, shall demonstrate all hand hose lays specified by the authority having jurisdiction.

4-7.3 The fire fighter shall demonstrate inspection and maintenance of fire hose, couplings, and nozzles; and recommend replacement or repair as needed.

4-7.4 The fire fighter shall demonstrate all hydrant/pumper connections as required by the authority having jurisdiction.

4-8 Fire Streams.

4-8.1 The fire fighter, given fire situations, for each situation shall:

- (a) Identify the phase of burning
- (b) Select the proper nozzle and hose size.

4-8.2 The fire fighter shall identify characteristics of given types of fire streams.

4-8.3 The fire fighter, given five fire ground situations, shall select and identify the proper adaptors or appliances.

***4-8.4** The fire fighter shall identify several precautions to be followed while advancing hose lines to a fire.

4-8.5 The fire fighter shall identify three conditions that result in pressure losses in a hose line.

4-8.6 The fire fighter shall identify four special stream nozzles and demonstrate at least two uses or applications for each.

4-8.7 The fire fighter shall identify and explain foam making appliances used, and shall produce a foam stream from all types of foam making appliances used by the authority having jurisdiction.

4-8.8 The fire fighter shall identify three observable results that are obtained when the proper application of a fire stream is accomplished.

4-8.9 The fire fighter, given the necessary resources, shall identify, select, and assemble those items required to develop at least three types of fire streams.

4-9 Ladders.

4-9.1 The fire fighter shall identify the materials used in ladder construction.

4-9.2 The fire fighter shall identify the load safety features of all ground and aerial ladders used by the authority having jurisdiction.

4-9.3 The fire fighter shall demonstrate inspection, care, and maintenance procedures for all different types of ground and aerial ladders used by the authority having jurisdiction.

4-10 Ventilation.

4-10.1 The fire fighter shall demonstrate the use of all different types of power saws and jack hammers used by the authority having jurisdiction.

4-10.2 The fire fighter shall identify the different types of roofs, demonstrate the methods used to ventilate each type, and identify the necessary precautions.

4-10.3 The fire fighter shall demonstrate how to determine the size of an opening for ventilation, how to locate these openings, and identify and explain the precautions to be taken during ventilation.

4-10.4 The fire fighter shall demonstrate the removal of skylights, scuttle covers, and other covers on roof tops.

4-10.5 The fire fighter shall demonstrate all different types of equipment for forced ventilation used by the authority having jurisdiction.

4-10.6 The fire fighter shall demonstrate ventilation using water fog.

4-11 Inspection.

4-11.1 The fire fighter shall prepare diagrams or sketches to record the locations of items of concern during pre-fire planning operations.

4-11.2 The fire fighter shall collect and record in writing information required for the purpose of preparing a report on a building inspection or survey.

4-11.3 The fire fighter shall demonstrate school exit drill procedures as specified by the authority having jurisdiction.

***4-11.4** The fire fighter shall demonstrate life safety programs for the home.

4-11.5 The fire fighter shall identify common fire hazards and make recommendations for their correction.

4-12 Rescue.

4-12.1 The fire fighter shall demonstrate the procedure to remove debris, rubble and other materials found at a cave-in.

4-12.2 The fire fighter shall demonstrate the use of the following rescue tools:

- (a) Shoring blocks
- (b) Trench jacks
- (c) Block and tackle
- (d) Hydraulic jacks
- (e) Screw jacks.

4-12.3 The fire fighter shall demonstrate how to prepare a victim for emergency transportation by using standard available equipment, or by improvising a method.