

Passed By Council on:03/17/1998

Purpose

To ensure that all firefighters meet nationally accepted standards for physical and medical fitness.

Policy Statement

A. MEDICAL REQUIREMENTS

1. All fire fighters should have and pass an initial comprehensive medical assessment which includes fitness for task evaluation together with the following baseline biological screening:

- PA chest X-ray
- Blood work (CBC, BUN, CREAT, LFTS)
- Urinalysis
- Pulmonary Function testing
- Stress EKG (over 40 years or if significant risk factors exist).
- Audiogram
- Visual acuity to include depth perception and peripheral vision.

2. Subsequent identical Physician medical assessments should be carried out every two years if the fire fighter is under 35 years of age. If the individual is over 35 years of age medical assessments should be carried out annually.

3. Hepatitis B testing for all fire fighters should be carried out during the medical assessment.

B. PHYSICAL REQUIREMENTS

Fitness testing should be carried out initially and annually or every second year thereafter as outlined below to ensure fitness maintenance. Such testing will be carried out on-site, but is to be supervised and controlled by an individual who is not an employee of the City. This person will be selected by the Director of Human Resources.

1. Standard

The Physical Fitness Standard is comprised of the following physical fitness tests. To satisfy the Standard, a fire fighter shall achieve or exceed the minimum level of performance required for each test. These tests shall be taken as an initial assessment or as a qualification evaluation.

(a) Cardiovascular/Respiratory Fitness

Requirement: The subject's cardiovascular fitness level shall be measured by a direct maximal measurement of aerobic power (VO2 max) on a treadmill.

Note: The recommended minimum VO2 max Standard for firefighter applicants is 45 ml/kg/min.

(b) Musculoskeletal Fitness

Sit-ups

The subject will be scored according to the number of sit ups performed in 60 sec.

Trunk Flexion (cm)

The subject will be scored according to the amount of forward flexion obtained in a sit and reach test.

(c) Body Composition

Measures of body mass index (BMI) waist to hip ratio, sum of five skinfolds and sum of trunk skinfolds as per the Canadian Standardized Test of Fitness (CSTF) guidelines.

(d) Job Simulation Physical Fitness Screening

1. Ladder Climb (Acrophobia Test; (un-timed))

Wearing a SCBA cylinder, the candidate climbs 40 ft. up a ladder, uncouples and re-couples a wall mounted base hose connection 12 inches above and to the right of the top of the ladder, then climbs back down the ladder. A safety line is attached to the applicant via a belt.

2. Claustrophobia Test (un-timed)

Wearing a blacked-out face piece, the candidate searches a narrow (14 inches) confined, but unobstructed passageway approximately 30 ft. in length and recovers an 18 inch doll.

3. Ladder Lift (un-timed)

The candidate removes a 24 ft. (56lb) ladder from brackets on the wall and places it on the floor, then returns to the brackets. The brackets are mounted at the identical height (193 cm) as the ladder brackets on the pumper.

4. Rope Pull (timed)

Using a 5\8 inch nylon braid rope, four times the candidate hoists and lowers the weight of a 50 ft. section of rolled 1½" hose plus nozzle (50 lb.) to and from a third floor window (approximately 65 ft.)

(Acceptable Time Limit 71 sec; Maximum Time Limit 92 sec.)

* 65 feet. is the total distance, height of pulley required is variable.

5. Simulated Hose Advance/Drag (timed)

With a loop of hose worn as a sash and the candidate looking forward the candidate pulls a weighted sled a distance of 50 ft. dragging the sled simulates advancing two 50 ft. sections of charged 2½"

hose.

(Acceptable Time Limit 36 sec; Max. Time Limit 45 sec.)

6. Hose Carry/Stair Climb (timed)

Lift and carry over the shoulder an 85 lb. bundle of folded and tied hose five floors (approximately 65 ft. up).

(Acceptable Time Limit 146 sec; Maximum Time Limit 177 sec.)

* 65 feet is the total distance, height of pulley required is variable.

7. Victim Drag (timed)

The candidate lifts and drags a 200 lb. dummy a distance of 50 ft. on a tile floor weaving in and out of traffic cones placed every 8' with 25' return course.

(Acceptable Time Limit 35 sec; Maximum Time Limit 42 sec.)

2. Initial Physical Fitness Assessment

(a) Initial assessments of the physical fitness of all new recruits will be completed and must reach the prescribed standards prior to any offer of employment being made.

(b) Initial assessments of the physical fitness of all current fire fighters shall be conducted at the earliest opportunity.

(c) The Fire Chief, or other persons responsible for the coordination of the on-site fitness assessment program, should consult with the City Medical Officer with regard to the readiness of fire fighters to take the initial assessment.

(d) Purpose

The initial assessments will serve to establish the current level of fitness of fire fighters vis a vis the Standard, and facilitate the prescription of exercise programs appropriate for each fire fighter.

(e) Objective

It is estimated that the Standard can be achieved in three to six months by most fire fighters. The objective is to have all current fire fighters meet the Standard, as a bona fide occupational requirement, within 1 year of the initial assessment.

(f) Implications

(I) Fire fighters who are unable to take the initial assessment, for reasons of recent injury, shall be scheduled for assessment as soon as possible after the injury has healed.

(ii) Fire fighters who are unable to take the initial assessment for reasons of long-term injuries or serious/chronic medical conditions shall be referred for a medical examination to verify medical fitness.

(g) Re-assessment

Re-evaluation as a result of failure of an initial assessment shall only be available to persons who are already employed by the City as fire fighters. Such re-assessment should not be undertaken less than 30 days after the last assessment to allow a reasonable time within which effort can be made to produce appreciable improvement and enhance the possibility of success. The exact timing of a re-assessment will depend upon the results obtained by the fire fighter in the unsuccessful test and will be at the discretion of the Fire Chief whose decisions will be based on the previous evaluation results and the advice of the City Medical Officer.

3. Qualification Evaluation

(a) Successful Fire Fighters

I. Fire fighters who meet the Physical Fitness Standard in the initial assessment, shall be required to pass qualification evaluations yearly thereafter, except that fire fighters obtaining test results in (ii) below shall be required to submit to qualification evaluations every two (2) years provided those levels are maintained in subsequent tests.

ii. Qualification evaluations shall be conducted every second year where the results obtained are equal to or better than:

- 55 ml/kg/min (Direct VO2 max)

- Sit ups - males

<30 years - above 45 sit ups in 60 sec.

>30 years - above 38 sit ups in 60 sec.

- Sit ups - Females

<30 years - above 39 sit up in 60 sec.

>30 years - above 31 sit ups in 60 sec.

- Trunk Flexion - Males

<30 years - above 42 cm

>30 years - above 40 cm

- Trunk Flexion - Female

<30 years - above 43 cm

>30 years - above 42 cm

iii. The cost of recurrent physical fitness evaluations shall be borne by the City.

(b) Unsuccessful Fire Fighters

Twelve months following the initial physical fitness assessment, as stated in paragraph

(2b) above, steps shall be taken to address the Human Resource circumstances resulting from continued failure to meet the Standard. Actions/Options to be explored shall include but not be limited to the following:

I. Extension(s) of the one (1) year period by a maximum of 3 months at a time, where:

- due to severe injury on the job or illness, the fire fighter has been unable to undertake activities to improve physical fitness during a significant portion of the one year period, **or**

- the fire fighter's qualification evaluation results are not less than:

a) VO2 max 45 ml/kg/min.

b) Sit ups

Male

<30 years - 36 sit ups in 60 sec

>30 years - 30 sit ups in 60 sec.

Female

<30 years - 29 sit up in 60 sec.

>30 years - 23 sit up in 60 sec.

c) Trunk Flexions

Male

<30 years - 33cm

>30 years - 32cm

Female

<30 years - 36cm

>30 years - 35cm

ii. Retraining, and reassignment, to any suitable position that might be available having regard to the fire fighter's education, skills, abilities, and experience.

iii. Retirement, earlier than anticipated, with the application of any plans that might be in effect at the time that offer some related financial consideration.

iv. Release of fire fighters due to incapacity/inability to meet the bona fide occupational requirements.

(c) Confidentiality

All medical information shall be treated in strictest confidence and in a manner that satisfies the requirements of the relevant legislation. Levels of fitness performed by individual fire fighters shall be available to management on a need to know basis, or more generally available with the individual's consent.

(d) Timing of Qualification Evaluations

The Fire Chief, or other persons responsible for the coordination of the on-site fitness assessment program, must consult with the City Medical Officer with regard to the readiness of fire fighters to take the qualification evaluation.

(e) Re-evaluation

Re-evaluation as a result of failure of a qualification evaluation, should not be undertaken less than

30 days after the last qualification evaluation. This allows a reasonable time within which sufficient training can be done to produce appreciable improvement and enhance the possibility of success. The exact timing of a re-evaluation will depend upon the results obtained by the fire fighter in the unsuccessful test. Decisions will be based on the previous evaluation results and the advice of the City Medical Officer.

An individual who fails to pass a qualification evaluation shall be granted a period of three (3) months in which to pass a re-evaluation. Should the individual not attain the required standard within that three month period the provisions of paragraph 3(b) above shall apply.

4. Medical Examinations and Physical Fitness Evaluations

(a) The recurrent physical fitness qualifying evaluation should be scheduled to take place after the (annual or biennial) medical examination.

(b) Doctors conducting medical examinations of fire fighters should be requested, in addition to giving the required medical assessment, to complete Part I of the form attached as Annex "A".

(c) Physical fitness qualification evaluations should be scheduled to take place as soon as possible after the medical examinations (or on the same day). The Appraiser should complete Part II of the form.

Application

Responsibilities

Department of Human Resources, St. John's Regional Fire Department.

Definition

References/Appendix

Monitoring and Contravention

Approvals

Finance and Administration Standing Committee Report March 5, 1998; Regular Meeting of Council March 17, 1998.

Review Period

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