

Mesa Fire Department

Essential Structure Firefighting Functions & Fitness Evaluation Components

Physician Reference

Essential firefighter job tasks include:

1. Performing firefighting tasks (e.g. hoseline operations, extensive crawling, lifting and carrying heavy objects, ventilating roofs or walls using power tools, forcible entry), rescue operations, and other emergency response actions under stressful conditions while wearing personal protective ensembles (PPE) and self-contained breathing apparatus (SCBA), including working in extremely hot or cold environments for prolonged periods.
2. Wearing an SCBA, which includes demand valve-type positive pressure facepiece or HEPA filter masks, which require the ability to tolerate increased respiratory workloads.
3. Exposure to toxic fumes, irritants, particulates, biological (infectious) and non-biological hazards, and/or heated gases, despite the use of PPE including SCBA.
4. Depending on the local jurisdiction, climbing six or more flights of stairs while wearing fire protective ensemble weighing at least 50lbs or more and carrying equipment/tools weighing an additional 20 to 40 lbs.
5. Wearing fire protective ensemble that is encapsulating and insulated. Wearing this clothing will result in significant fluid loss that frequently progresses to clinical dehydration and can elevate core temperature to levels exceeding 102.2 F (39C).
6. Searching, finding, and rescue-dragging or carrying victims ranging from newborns to adults weighing over 200lbs to safety despite hazardous conditions and low visibility.
7. Advancing water-filled hoselines up to 2.5 inches in diameter from fire apparatus to occupancy (approximately 150 feet), can involve negotiating multiple flights of stairs, ladders, and other obstacles.
8. Climbing ladders, operating from heights, walking or crawling in the dark along narrow and uneven surfaces, and operating in proximity to electrical power lines and/or other hazards.
9. Unpredictable emergency requirements for prolonged periods of extreme physical exertion without benefit of warm up, scheduled rest periods, meals, access to medication(s), or hydration.
10. Operating fire apparatus or other vehicles in an emergency mode with emergency lights and sirens.
11. Critical, time sensitive, complex problem solving during physical exertion in stressful, hazardous environments (including hot, dark, tightly enclosed spaces), further aggravated by fatigue, flashing lights, sirens, and other distractions,
12. Ability to communicate (give and comprehend verbal orders) while wearing PPE and SCBA under conditions of high background noise, poor visibility and drenching from hoselines and/or fixed protection systems (sprinklers).
13. Functioning as an integral component of a team, where sudden incapacitation of a member can result in mission failure or in risk injury or death to civilians or other team members.

Reference: NFPA 1582 Standard on Comprehensive Occupational Medical Program for Fire Department 2003 Edition

Annual Firefighter Fitness Evaluation includes:

1. Body Composition (body weight, body fat, body mass index, waist-to-hip measurements)
2. Aerobic Capacity (sub-maximum treadmill test requiring workloads of 85% of maximum heart rate)
3. Muscular Endurance & Strength (crunches, push up[s and grip strength-dynamometer)
4. Flexibility (sit and reach)

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