



Airport Fire Officers Association

## **RFFS Medical & Fitness Policy**

Guidance Document

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## **1. Preface**

In 2006 the Civil Aviation Authority (CAA) changed the medical standards that are required for all operational Rescue and Fire Fighting Services (RFFS) personnel employed at licensed aerodromes within the UK. This was to fall in line with a national publication entitled, "Medical and Occupational Evidence for Recruitment and Retention in the Fire and Rescue Service". This document is regarded as current industry best practise.

The CAA has recently issued an updated version of CAP 168 (December 2008) which gives an overview of the medical standards required for operational fire-fighters. This can be found in Chapter 8, Paragraph 8.

This new guidance states that Aerodrome Licensees are advised to determine an appropriate medical standard to be met by personnel employed as RFFS personnel. Aerodrome Licensees should ensure that appointed medical practitioners are adequately qualified to conduct such medical examinations and are conversant with the medical standards to be applied.

This therefore, has now placed the responsibility of ensuring personnel who are employed to undertake RFFS duties are fit to carry out their defined roles from initial recruitment and throughout the length of their service onto the relevant individual's aerodrome.

## **2. Policy Statement**

This guidance document has been put together to assist those that have accountability and responsibility for RFFS personnel in meeting and maintaining an acceptable industry medical and fitness standard. This guidance document is not meant to be exhaustive and further detailed medical advice may need to be sought by the aerodrome's relevant General Practitioner or Occupational Health advisor.

### **3. Medical & Fitness Policy Objectives**

- 3.1 To comply with CAP 168 (May 2006) in determining an acceptable medical and fitness standard for operational RFFS personnel employed at licensed aerodromes within the United Kingdom.
- 3.2 To comply with industry best practice in the application of standards e.g. Medical and Occupational Evidence for Recruitment and Retention in the Fire and Rescue Service (Sept 2004).
- 3.3 To comply with the Disability Discrimination Act 1995/2005
- 3.4 To comply with DVLA Group 2 Health Standards
- 3.5 To control medical risk identified by risk assessment in relation to airside driving and comply with CAP 642, Airport Company and Airport Operators Association airside driving health standards
- 3.6 To comply with Health & Safety Executive recommended practice and Airport Company policy for those exposed to the hazards of noise.
- 3.7 To comply with Data Protection legislation in seeking only relevant information
- 3.8 To comply with age discrimination legislation in determining and setting criteria for recruitment and retention of fire-fighters
- 3.9 To comply with additional Health & Safety legislation relating to specific areas of work

### **4. Tasks and Risks**

Fire-fighting can involve sustained and physically demanding activity which can include working at heights, entering confined spaces, working with breathing apparatus, climbing ladders, extremes of temperature and working various shift patterns. The Aerodrome Licensee should also be aware of the medical requirements of personnel required to hold a current LGV Driving License.

High standards of health and fitness both physical and mental are required to ensure that individuals are not at increased risk to their health when operating in these conditions, not at increased risk of having impaired concentration or judgement and not prevented from meeting sustained physical demands under extreme conditions. The following health requirements take into account the need to meet the aims defined above and should link directly to the Fire Service Role Map structure.

Acceptable fitness levels needs to be actively maintained by all operational RFFS personnel and this is clearly their responsibility, however, this should be reflected in the aerodrome fitness policy. New recruits should be assessed to ascertain their level of fitness and health at point of entry. Serving fire-fighters should be assessed to monitor and verify that they are maintaining the required fitness standard to physically manage the demands of the fire-fighting role and to identify any health issues which may place them at increased risk when undertaking any elements of their job role.

## 5. Frequency

- 5.1 There is medical evidence to suggest that a person's health and fitness status declines with age. The frequency of assessment is determined by combining the different types of assessment required for the role of a fire-fighter e.g. use of breathing apparatus, airside driving, working at heights, confined spaces and requirements under DVLA Group 2 Standards.
- 5.2 It is recommended that medical assessments (initial and recurrent) shall be carried out by a suitably qualified medical person e.g. nurse or doctor.
- 5.3 Fitness assessments may be carried out by a suitably qualified medical person as part of the medical assessment or the Aerodrome Licensee may wish to use RFFS personnel that are suitably qualified as a Physical Training Instructor to carry out this function.
- 5.4 It is recommended that medical and fitness assessments are conducted on initial entry into the RFFS and then annually thereafter
- 5.5 It is recommended that the Aerodrome Licensee should wherever possible provide suitable facilities for RFFS personnel to maintain their levels of fitness as part of the RFFS Training and Assessment Programme.

## 6. Contents of the Medical Assessment

6.1 Preliminary medical assessment at recruitment with a suitably qualified medical person to include

Table One – Initial Assessment	Standard
Health Questionnaire	Further enquiry / exam if positive response. Must be current with Tetanus immunisation. Advice to be given regarding the benefits of Hepatitis B immunisation.
Height, Weight, Body mass index	Consistent with efficient performance of rescue and fire fighting duties. BMI of normally < 30.
Flexibility and mobility	Consistent with efficient performance of rescue and fire fighting duties.
Hearing – Audiometry	Category 4 (2m conversational voice test)
Vision – visual acuity – <b>Operational</b>	At least 6/9 at 6m in each eye tested separately and N5 at 30-50cm binocular with (permitted) correction if necessary. <b>(See Note 1)</b> At least 6/60 at 6m and N48 at 30-50cm binocular without the use of correction.
Vision – visual acuity – <b>RVR</b>	At least 6/9 at 6m in each eye tested separately and N5 at 30-50cm binocular with (permitted) correction if necessary.
Vision – visual fields	Normal to confrontation.
Vision – colour	Normal Ishihara (24 plate version, first 15 read normally)
Urinalysis	No significant glycosuria/proteinuria/haematuria.
Cardiovascular – pulse, BP, ECG	No significant cardiovascular disease. B/P – systolic < 160, diastolic ≤ 100.
Aerobic fitness – Predicted VO <sub>2</sub> max (ml/kg/min)	≥ 46 ml/kg/min. <b>(See Note 2)</b>
Respiratory – Spirometry	FVC > 80%, FEV1 > 80%, FEV1/FVC > 75%
Mental Health Assessment	No significant mental illness.
Physical Examination by Occupational Physician	Consistent with efficient performance of rescue and fire fighting duties.

### Note 1 - Visual Correction

All appliances for visual correction must be approved at medical examination. Safety spectacles will be required for distance vision correction to meet the Operational standard and inserts will also be required for breathing apparatus. These will be provided by the Aerodrome Licensee.

It is a requirement that fire fighters who require safety spectacles to meet the distance standard will have a spare pair and spare breathing apparatus inserts when on operational duties. Contact lenses may be worn if approved at medical examination by the suitably qualified medical person. They will not be provided by the company.

Safety spectacles are not required for RVR duties or to meet near vision correction of the Operational standard.

### Note 2 – Aerobic Fitness Testing

The Aerodrome Licensee may wish to use a suitably qualified Physical Training Instructor to carry out Aerobic Fitness Testing (VO<sub>2</sub> Max testing).

## **6.2 The following will be performed if clinically indicated:**

- ECG
- Chest X-Ray
- Additional tests as necessary.

## **6.3 The suitably qualified medical person will:**

- be a GMC-registered Doctor or Qualified Nurse with Occupational Health and/or aviation & fire-fighter medical experience
- be familiar with the work environment including full range of activity, health requirements and medical risk control.
- have directly available an Occupational Health Consultant, for consultation and onward referral.

## **6.4 Recurrent medical examinations with suitably qualified medical personnel to include:**

- Weight and BMI
- Visual Acuity
- Pulse & Blood Pressure
- VO2 Max testing
- Spirometry
- Audiometry
- Urinalysis

## **6.5 Completion of Recurrent Medical with suitably qualified medical person to include:**

- Fire-fighters medical questionnaire
- Review of results of tests (see 6.5)
- Clinical assessment including Cardiovascular, Respiratory, Neurological and Musculo-skeletal systems
- Statement of Fitness

## **7. Medical Outcome**

7.1 Each case will be assessed on an individual clinical basis. The judgement of work fitness will be based on the standards referred to in 3.1 – 3.9 at the time of assessment.

## **8. Failure Due to Medical Reasons:**

8.1 The suitably qualified medical person shall refer to the Medical and Occupational Evidence for Recruitment and Retention in the Fire and Rescue Service Document. This may require the Aerodrome Licensee to conduct an individual risk assessment to determine if he/she can still perform an operational functional role.

## 9. Contents of the Fitness Assessment

9.1 Initial and recurrent fitness assessments should establish an individual's VO2 Max. This is a measure of the body's ability to utilise oxygen and has been scientifically proven to have a direct correlation with a person's fitness level. The minimum VO2 Max level for all fire-fighters at entry should be set at 46.

9.2 Operational fire-fighters should all achieve an acceptable fitness level during recurrent fitness assessments. The tables below show fitness levels for both male and female fire-fighters.

<b>VO2 Max Outcome</b>	<b>Interpretation</b>
Less than 36	Likely to be unfit for operational duty
36 to 39	Evidence of declining aerobic fitness. Increased physical training required.
40 or above	Meets basic requirement for operational fire fighting duties
46 or above	Basic preferred recruitment standard for initial applicants.

9.3 There are a number of methods to assess VO2 Max for fire-fighters, namely: The Chester Step Test, The Bleep Test, The Cooper Test.

## 10. Return to Operational Duty after Illness or Injury

10.1 Each case should be assessed on an individual basis though, as a general rule, if an operational fire-fighter has been off work due to medical grounds for more than 28 days, he/she will require a partial or full Medical Assessment, relevant to medical diagnosis, and a fitness assessment if necessary.

## 11. Amendment of Policy

11.1 The Policy may be reviewed and amended to reflect changes in legislation and/or revised guidelines from HSE, Government, CAA (EASA) or any other regulating body who may impact on the provision of the RFFS.

## 12. References

- Health & Safety at Work Act 1974
- Medical and Occupational Evidence for Recruitment and Retention in the Fire and Rescue Service (Sept 2004).
- Disability Discrimination Act 1995/2005
- Age Discrimination Act 2006
- DVLA Group 2 Health Standards
- CAP 168
- CAP 642
- Data Protection Act 1998
- Keyes C, OHI 09 - Medical Assessment of Fire-fighters, 2007. BAE SYSTEMS: Occupational Health Corporate Guidance:2007

## Appendix 1 – Medical Questionnaire

### AERODROME FIRE & RESCUE SERVICE

### OPERATIONAL FIRE FIGHTER QUESTIONNAIRE

#### Part A – Personal Details

<b>Surname:</b>	<b>First names:</b>
<b>Personnel Number:</b>	<b>Date of previous medical:</b>

#### Part B – Health Questionnaire **MEDICAL INFORMATION - CONFIDENTIAL**

<b>Do you have or have you ever had any of the following:</b>	Yes	No
Asthma, bronchitis, emphysema, pneumothorax or recurrent cough/wheeze/breathlessness/chest infection		
Eczema, dermatitis or other skin problem		
Allergies including hay fever		
Diabetes		
Fits, epilepsy, fainting, blackouts, frequent headaches or migraines		
Psychiatric illness, trouble with nerves, depression, anxiety or stress related illness		
Disease of the heart or circulation including angina (chest pain) or high blood pressure		
Trouble with your back or neck or sciatica		
Joint or muscle problems, arthritis, rheumatism, problems with hands/arms or knees/hips		
Weakness, loss of sensation or clumsiness affecting part of your body		
Vertigo, dizziness or loss of balance		
Bladder or urinary problems		
Indigestion or peptic ulcer		
Bowel disorder including ulcerative colitis, Crohns disease or irritable bowel syndrome		
Thrombosis or varicose veins or haemorrhoids		
Hernia or rupture		
Difficulty hearing normal conversation, recurrent earaches		
Impairment of vision (including colour vision) Do you wear contact lenses?		
Operations, tests or treatment at a hospital, clinic or GP surgery		
List any medication that you are taking		
If you answered yes to any question, please write comments in this space		

#### **Declaration**

I confirm that the information I have given on this questionnaire is true to the best of my knowledge and that I have no undeclared medical condition that may prejudice my safety.

Signed:

Date:

## Appendix 2 – Medical Examination Record

<b>Surname</b>		<b>Forenames</b>		<b>DOB/Age</b>	
<b>Date</b>	<b>Reason for medical</b>				
<b>Questionnaire(s)</b>	<b>Name and issue</b>				
<b>Habits</b>	Smoking	Alcohol	Medication		
<b>Vision – unaided</b>	R	L	Both	N	
<b>Vision – corrected</b>	R	L	Both	N	
<b>Vision – middle distance</b>	R (uncorrected/corrected)		L (uncorrected/corrected)		
<b>Vision– peripheral</b>	R		L		
<b>Vision – colour</b>	Test		Result		
<b>Height/Weight</b>	Ht	Wt	BMI		
<b>Cardiac</b>	P	B/P	ECG (if clinically indicated)		
<b>Respiratory</b>	PEFR	Spirometry	Satisfactory	Unsatisfactory	
<b>Hearing</b>	Conversation	Audiometry	Examination R	Examination L	
<b>Co-ordination</b>	Manual R	Manual L	Pedal R	Pedal L	
<b>Fitness</b>	Grip R	Grip L	Leg/back pull	Step test	
<b>Urine/blood</b>	Urine	Blood sugar	Cholesterol		
<b>Additional tests –</b>					
<b>History/Exam</b> (continue on notes sheet if required)					
<b>Result:</b>					
<b>Signed:</b>			<b>Review date:</b>		

**Units:** Ht = cm, Wt = kg, PEFR = predicted/actual, Spirometry = FEV1/FVC, Grip and Leg/back pull = kg, Step test = VO<sub>2</sub> max in l/min, Blood sugar/Cholesterol = mmol/l.

