

#### प्रांसमंग कालो GOVERNMENT OF INDIA OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION TECHNICAL CENTRE, OPP SAFDURJUNG AIRPORT, NEW DELHI

# CIVIL AVIATION REQUIREMENTS SECTION 2 - AIRWORTHINESS SERIES 'L', PART XV 10<sup>TH</sup> AUGUST 1999

# EFFECTIVE: 7<sup>th</sup> August 2000

F. No. 11-690-2L15-AI(2)

# SUBJECT: Procedure for issue/renewal/extension of Student Flight Engineer/ Flight Engineer's licence.

# 1. INTRODUCTION

Rule 6, of Aircraft Rules, 1937 stipulates that every aircraft shall carry and be operated by the personnel prescribed in Part V of the Rules. Some of the aircraft require Flight Engineer (FE) as part of the flight crew as laid down in Certificate of Airworthiness/Airplane Flight Manual (AFM) and such personnel shall be licensed in the manner prescribed in Section W and X of the Schedule II, of the Aircraft Rules, 1937.

No person shall act as a Flight Engineer (FE) of a civil registered aircraft unless he has in his personal possession a current Flight Engineers Licence with appropriate ratings issued to him by DGCA.

This part of the CAR lays down detailed procedure and requirements for issue/renewal/ extension of Student Flight Engineer Licence/Flight Engineer (SFE/FE) licences.

This CAR is issued under the provision of Rule 133A of the Aircraft Rules, 1937. These requirements are complimentary to the provisions of ICAO Annex I.

# **DEFINITIONS:**

2. **Flight Simulator**: Which provides an accurate representation of the flight deck of a particular aircraft type to the extent that the mechanical, electrical, electronic, etc. aircraft, systems control functions, the normal environment of flight crew members, and, the performance and flight characteristic of that type of aircraft are realistically simulated;

**Psychoactive substances**: Alcohol, opioids, cannabinoids, sedatives and hypnotic, cocaine, other stimulants, hallucinogens, and volatile solvents (coffee and tobacco are excluded).

**Problematic use of substances**: The use of one or more psychoactive substances by aviation personnel in a way that:

- a) Constitutes a direct hazard to the user or endangers the life, health or welfare of others; and/or
- b) Causes or worsens an occupational, social, mental or physical problem or disorder.

# 3. PROCEDURE FOR ISSUE OF FLIGHT ENGINEER'S LICENCE

For issue of Flight Engineer's Licence the applicant is required to be first issued with a Student Flight Engineer's Liceenc (SFE). The detailed procedure for issue of SFE is given below.

# 3.1 Requirements for issue of SFE licence:

An applicant for a SFE licence shall satisfy the following requirements:

# (a**) Age**:

He shall not be less than twenty-one years of age on the date of application.

# (b) Knowledge:

- 1) He shall have passed class ten plus two with Physics and Mathematics or its equivalent from a recognised Board/ University.
- 2) He shall have successfully completed a Flight Engineer's Ground Course of Instructions as per the syllabus approved by DGCA. The course shall be conducted by the operator which shall consist of the following:-
  - (i) Basic Course
  - (ii) Type Course

Note: Any training institute specifically approved by DGCA for this purpose can conduct the basic and type course.

3) The syllabus for Basic and Type Course is given at Annexure I to this CAR. The duration of the courses shall be as decided by the Director General of Civil Aviation, keeping in view the complexity of the aircraft and the educational qualifications, experience and background of the applicant:- Normally, the duration of the course should not be less than 4 weeks each for basic and type course.

4) At the end of the course, the operator shall conduct written examinations to determine the knowledge of the applicant and when found satisfactory declare him as successful.

#### c) **DGCA Examinations**:

After successful completion of the Ground course, he shall pass Flight Engineers written examination on the following subjects:

Paper I – Air Law and General Aircraft Knowledge Paper II – Specific Airframe and Engine Type Paper III – Definitions & Performance-- Aeroplane / Helicopter

The examination shall be conducted by the Central Examination Organisation (CEO) of DGCA, New Delhi. The detailed syllabus of the individual paper for written examination is given at Annexure I. Application along with requisite fees as laid down in Rule 48 of the Aircraft Rules, 1937 may be submitted to the CEO for admission to the written examination

Note: Where an applicant produces acceptable evidence that he has attended a ground course of instructions or has passed Aircraft Maintenance Engineers Licence Examinations of at least equal standards in any subject specified in the Annexure I, he may be granted exemption from the requirements of Basic and Type Course as applicable by DGCA.

#### d) **Experience**:

The applicant should have completed at least six months experience on practical maintenance and repairs on the type of aircraft at the time of submission of application to CEO for appearing in the written examination.

#### e) Medical Fitness

The applicant shall at the time of the issue of SFE licence produce on a prescribed proforma, a certificate of physical fitness from an approved Medical board after undergoing Medical examination during which he shall have established his medical fitness on the basis of compliance with the requirements as notified by the Director General under Rule 39B.

#### 3.2 Issue of SFE Licence

Upon compliance of the above requirements, the applicant along with the necessary documents may apply on the prescribed proforma with the requisite fee as per Rule 48 to the DGCA Hqrs (Attn: DAW) for issue of SFE licence. After satisfactory scrutiny, SFE licence with relevant type rating may be issued to the applicant.

#### 3.3 Validity

The validity of the SFE licence shall commence from the date of issue or renewal of the licence. The licence shall be valid for a period not exceeding 12 months from the date of medical examination subject to the total validity of the licence not exceeding 24 months from the date of issue.

#### 3.4 Renewal:

The Regional Airworthiness Office may renew the SFE Licence for a period not exceeding twelve months from the date of successful medical examination.

#### 3.5 **Aircraft Rating:**

The SFE Licence shall indicate the type of aircraft on which the holder is entitled to fly in the capacity of a student flight engineer.

#### 3.6 **Extension of aircraft rating:**

For extension of aircraft rating to include an additional type of aircraft, an applicant shall have at least three months practical experience and repairs and completed a flight engineer's ground course of instructions on the type of aircraft approved by the Director General of Civil Aviation and passed a written examination covering papers II and III conducted by CEO of DGCA pertaining to the type of aircraft for which extension of aircraft rating is desired.

#### 3.7 **Privileges:**

Subject to the validity of endorsements and ratings in the licence, the privileges of the holder of a student flight engineer's licence shall be to act as a student flight engineer on any type of aircraft entered in aircraft rating of his licence and which has separate flight engineer's station, provided that:

- (a) He shall act so at all times under personal supervision of a flight engineer and solely for the purpose of gaining flight experience required for obtaining a flight engineer's licence.
- (b) He shall not act as a student flight engineer of a transport aircraft carrying passengers unless he has satisfactorily completed a course of training for a minimum of ten hours on local training flights or non-passenger carrying flight during which he shall have carried

out not less than ten take-offs and ten landings and he has been certified fit by an examiner to operate as student flight engineer on the type of transport aircraft carrying passengers. Out of the ten hours stipulated as training experience, not more than eight hours shall be on an approved Flight Simulator. However the stipulated 10 take off and landings shall be on an actual aircraft

# 4 FLIGHT ENGINEER'S (FE) LICENCE:

#### 4.1 **Requirements for issue of FE licence:**

An applicant for issue of FE licence shall satisfy the following requirements-

a) He must hold a current SFE licence on the type of aircraft.

#### b) Medical fitness –

He shall produce on a prescribed proforma a certificate of physical fitness from an approved Medical Board after undergoing a medical examination during which he shall have established his medical fitness on the basis of compliance with the requirements as notified by the Director General under Rule 39B.

#### c) Experience –

The applicant shall produce evidence of having completed within a period of twelve months immediately preceding the date of his application for licence, a minimum of one hundred hours of flying experience under the supervision of a person in possession of FE licence on the type of aircraft desired to be included in the licence. Out of this flying experience not more than fifty hours shall be obtained on an approved Flight Simulator. The applicant shall have undergone training, covering diversionary inspection schedule (Check Part II/ FE Transit Schedule) under the supervision of a qualified AME holding type endorsement. He should have completed at least six diversionary inspection schedules. A certificate to this effect from the QCM shall be submitted along with the application for issue of FE Licence.

#### d) Skill-

**Oral cum Practical Test** – He shall demonstrate his competency as a flight engineer to the satisfaction of a board constituted by DGCA consisting of DAW/CAW as the Chairman, either SAWO or a representative of Flight Inspection Directorate of DGCA as a member and an approved FE Examiner as an external member. The said examination shall be carried out during the period the candidate is undergoing training on approved Flight Simulator after passing Paper I, II and III of the Technical Examination conducted by CEO to cover the type of aircraft. The examination may be carried out on the Flight Simulator and / or aircraft to cover the checks/ inspections as given in Annexure I. An

applicant who fails in oral-cum-practical examination shall not be admitted for reexamination within a period of six weeks from the date of examination.

#### e) Fees

Requisite fees as laid down in Rule 48 of the Aircraft Rules, 1937 along with the application shall be submitted to the DGCA Hqrs for issue of FE licence.

#### 4.2 Validity

The period of validity shall commence from the date of issue or renewal of the licence. The licence shall be valid for a period not exceeding twelve months from the date of medical examination except when an applicant has been medically examined during thirty days immediately preceding the date of expiry of the licence, full period of validity may be allowed from the date of expiry.

#### 4.3 Renewal

The licence may be renewed by the regional office of DGCA on receipt of satisfactory evidence of an applicant—

- a) Having undergone a successful medical examination as prescribed above.
- b) Having satisfactorily completed not less than twenty hours of flight time as a flight engineer within a period of six months immediately preceding the date of application for renewal or in lieu thereof having under gone skill test within the same period.
- c) Having satisfactorily completed an approved technical and performance refresher course of at least two days duration conducted by the operator who will comprise of technical and performance subjects. At the end of the course, the operator shall conduct written examination with a minimum qualifying marks of 70%. The operator shall issue a certificate to this effect. In addition, the applicant shall produce evidence of having at least two hour Flight Simulator Check ,wherein alternate ,abnormal , and emergency procedures are included. Where the flight simulator is not available, a route check may be carried out in lieu of the flight simulator check which shall be valid for a period not exceeding 45 days only, after which the licence is deemed to have lapsed unless the flight simulator check as specified above, is completed.

As regards FEs of helicopters are concerned, where the Flight Simulator may not be available, a route check may be carried out in lieu of the Flight Simulator check wherein emergency conditions be simulated and certificate issued. Such route checks shall be carried without passengers on board.

Where the licence has lapsed, such licence will be renewed in accordance with rule 42 of Aircraft Rules, 1937

# 4.4 **Aircraft rating:**

The licence shall indicate the type of aircraft the holder is entitled to fly in the capacity of a flight engineer.

# 4.5 **Extension of aircraft rating:**

For extension of aircraft rating to include an additional type of aircraft, an applicant shall be required to produce evidence of—

- (i) Having a current student flight engineer's licence on the type of aircraft which is desired to be included in the aircraft rating of his licence;
- (ii) Having completed within a period of twelve months immediately preceding the date of the application for extension of aircraft rating, fifty hours of flying experience on the type of aircraft desired to be included in his licence. Out of this flying experience not more than twenty-five hours shall have been obtained on an approved Flight Simulator.
- (iii)Having successfully completed the skill test as laid down in this CAR, in respect of the type of the aircraft for which the aircraft rating is desired, within a period of six months immediately preceding the date of the application for extension of aircraft rating.

# 4.6 **Privileges:**

Subject to the endorsements and rating in the licence, the privileges of the holder of a flight engineer's licence shall be to act as flight engineer in any aircraft of a type specified in the aircraft rating of his licence provided during the preceding twelve months he has demonstrated his competency in carrying abnormal, alternate operation and emergency procedures to an approved examiner, to undertake duties of flight engineer in the type of aircraft or in an approved Flight Simulator.

He may also carry out transit inspection of the aircraft in case of diversion to a station where a qualified AME is not available for such certification.

### 4.7 Restoration of privilege of rating:

As per DGCA requirement FE can fly only one type of aircraft even though he holds type rated licence on more than one type of aircraft. Due to this there are occasions when FE may not be able to exercise the privileges of rating of a particular type of aircraft for want of recency of experience. The following requirements details restoration of the privileges of the rating held provided the licence is current.

Lapsed period **Training Requirements** i) Less than 45 days 1 Simulator Refresher 4hrs; Route Check (Minimum 4 landings); ii) 45 days to 90 days Technical Refresher 2 days; Simulator 4 hrs.; Route Check (Minimum 4 landings) 91 days to 364 days iii) Extended Technical Refresher; Simulator (2 X 4 hours); ◆ 2 Route checks (Minimum 6 landings with atleast two different DGCA approved Examiner) iv) 1 year and above Extended technical Refresher which shall cover aircraft systems and performance; Complete Simulator Approval Profiles; Simulator Check by FE Examiner; ◆ 3 Route checks (Minimum 8 landings) with atleast two different DGCA approved FE Examiners:

Note: In the event of non availability of two FE examiners, the final check shall be carried out in the presence of Flight Inspector (FE) of DGCA;

# Note: After the FE is released his performance shall be monitored and report submitted to concerned Airworthiness Office.

The operator shall approach for reconversion of their FE's licence to DGCA Hqrs. through the concerned Airworthiness office, who shall forward the same with necessary justification.

# 5 GENERAL REQUIREMENTS

5.1 The operator shall prepare training manual covering the syllabus and procedure followed for training of SFE/FE as per this CAR. The manual shall also contain the requirements and conducting procedure includina refresher of course followed bv written examination/Simulator Check for renewal of FE licence. The operator

shall also provide adequate training and sufficient number of Check FEs/FE Examiners to ensure that each SFE/FE employed by him is adequately trained to perform his duties and responsibilities.

- 5.2 A flight engineer on duty shall be in possession of his licence and shall produce his licence for inspection, upon request of an officer of DGCA. In case the licence is submitted to a competent authority for renewal or any other action, that fact shall be deemed as valid excuse for its not being carried on board.
- 5.3 The licence holder shall not exercise the privileges of his licence and related ratings at any time when he is aware of any decrease in his Medical fitness which might render him unable to safely and properly exercise the privileges of his licence.
- 5.4 The licence holder shall not exercise the privileges of his licence and related ratings while under the influence of any psychoactive substance, which might render him unable to safely and properly exercise the privileges of the licence.
- 5.5 The licence holder shall not engage in any problematic use of substance.
- 5.6 It shall be the responsibility of the operator to ensure, as far as practicable, that all FE licence holders who engage in any kind of problematic use of substances are identified and removed from their safety critical functions. Return to the safety critical functions may be considered after successful treatment or, in cases where no treatment is necessary, after cessation of the problematic use of the substances and upon determination that the person's continued performance of the function is unlikely to jeopardize safety.
  - Note: Guidance on suitable methods of identification which may include bio-chemical testing on such occasions as pre employment, upon reasonable suspicion after accident/incident, at intervals and at random is contained in the manual on prevention of problematic use of substances in Aviation Workplace vide ICAO Doc 9654.
- Note: The procedure for validation of Foreign Flight Engineers Licence, is detailed in Airworthiness Advisory Circular 6 of 1998

Sd/-(N. RAMESH ) DY. DIRECTOR GENERAL OF CIVIL AVIATION

#### Annexure I

# SYLLABUS FOR EXAMINATION FOR THE ISSUE OF STUDENT FLIGHT ENGINEERS LICENSE/FLIGHT ENGINEERS LICENSE

**Note:** The syllabus for Paper I as given below shall constitute the syllabus for Basic Course of Ground Course- as referred to in Para 1 (d) of Section W of Schedule II of the Aircraft Manual. The syllabus for Paper II and III given below shall constitute syllabus for Type Course of the Ground Course of Instruction as referred above.

#### Paper I Air law and General Aircraft Knowledge

- 1. Rules and regulations relevant to the holder of a flight engineer license; rules and regulations governing the operation of civil aircraft including flight documentation Pertinent to the duties of a flight engineer.
- 2. Fundamentals of aerodynamics and theory of flight of aeroplanes or helicopters as applicable.
- 3. Fundamentals of navigation; Principles and operation of self contained systems.
- 4. Operational aspects of meteorology; properties of air; knowledge of varying meteorological conditions and their effect on aircraft, power-plant operations.
- 5. General Principles of construction, maintenance and functioning of engines gas turbine engines and Piston engines; characteristics of fuels, fuel systems including fuel control; lubricants and lubrication systems, afterburners and injection systems, function and operation of engine and starter systems and propeller systems as applicable.
- 6. Principles Of Operation, handling procedures and operating limitations of aircraft engines. Procedure in the event of engines or system malfunction or emergencies particularly in the event of fire.
- 7. Airframes, flight controls, structures, wheel assemblies, brakes and anti-skid units, corrosion and fatigue lives; identification of structural damage and defects.
- 8. Ice and rain protection systems.
- 9. Pressurisation and air-conditioning systems and oxygen systems.
- 10. Hydraulic and Pneumatic systems

- 11. Basic Electrical theory, electrical systems (AC & DC), aircraft wiring system, bonding and screening.
- 12. Principles of operation of instruments, compasses, auto-pilot, radio communication equipment, radio and radar navigation aids, flight management systems, displays and avionics.
- 13. Fire Protection, detection, suppression and extinguishing systems.
- 14. Weight & Balance of aircraft
- 15. Emergency equipment
- 16. Principles of maintenance, ground handling and servicing procedures, procedures for airworthiness checks, defect reporting, pre-flight inspection, precautionary procedures for fueling, use of external power; installed equipment and cabin systems.

#### Paper II Specific Airframe & Engine Type

- 1. General specifications, Dimensions, cockpit arrangement, doors, cargo compartment, lighting, operation speeds. Limitations of appropriate aircraft structural weight limitations, operating limitations.
- 2. Human performance and limitations including principles of threat and error management. relevant to the flight engineers

Note.— Guidance material to design training programmes on human performance, including threat and error management, can be found in the Human Factors Training Manual (Doc 9683).

- 3. Normal, abnormal and emergency procedures.
- 4. Operational procedures for carriage of freight and dangerous goods.
- 5. Malfunction analysis of aircraft and engine systems
- 6. Ground handling and servicing procedures including pre-flight inspection.
- 7. Weight and Balance of the aircraft.
- 8. Use of cockpit checklists and MEL, CDL..
- 9. Documents relating to aircraft airworthiness.
- 10. Air-conditioning pack, mix valves, Ram air system, Conditioned air distribution, pressurisation system and pressure controller, out flow valves, max. Differential, warnings.
- 11. Yaw damper, auto throttle system (ATS), Pitch/Roll modes, Flight Director and control wheel steering system.

- 12. Starting cycle, limitations of pneumatic and electrical use, warnings.
- 13. A general knowledge of normal, abnormal and emergency -use of radio, communication, navigation and radar systems. Use of VHF, HF, Selcal, CVR, Public Address System, Transponder, ACAS etc.
- 14. Constant speed drive, Ground Power Unit, DC/AC Ammeter, AC power distribution, DC power distribution, standby AC/DC and electrical system operating limitations.
- 15. Flight crew oxygen system, Passenger oxygen system, portable oxygen bottles, fire extinguishers, first aid box, fire axe, location of emergency exits and evacuation procedures, emergency locator beacon (ELT).
- 16. Engine overheat detection, engine fire detection, wheel well fire detection, APU fire detection, Engine/APU fire extinguishing system, Lavatory fire extinguishing system.
- 17. Roll control, Pitch control, Yaw control, speed brakes, trailing edge flaps, leading edge flaps, ground spoilers, mach trim system, pitch feel system, Trim/Balance/Servo tabs.
- 18. Machmeter, Airspeed indicator, altimeter, VSI, Flight Data Recorder, Total Air Temperature indicator, clock.
- 19. Fuel system: Fuel management including Fuelling/Defuelling, Vent system, Booster pumps, fuel heater, Filter icing, Fuel Jettisoning system, tank capacity and indications.
- 20. Hydraulic system: Quantity indications, Engine driven pumps, electrical pumps, Air driven pumps, Pressure relief valve, low pressure warnings, standby system, leak identification, various services operated (Power operated controls, landing gear, brakes etc.), accumulator.
- 21. Ice and rain protection,: Hot air heating, electrical heating, wing anti-icing, engine anti icing, window heating, probes/Pitot heating, rain repellant and wipers.
- 22. Landing gear: Normal operation, emergency operations, indications, warning system, air/ ground safety sensor. Anti-skid System, auto brake system, emergency brakes. Nose wheel steering.
- 23. Flight and Navigation Instruments: Attitude direction indicator, Horizontal situation indicator, Compass system, Radio magnetic indicator, VHF Nav systems, Distance measuring equipment, Automatic Direction Finder, Weather Radar, Ground Proximity Warning System.
- 24. Pneumatics: Sources of pneumatics, Engine Bleeds, APU bleed, Ground Power Unit, Various services operated by Pneumatic, overheat warnings and indications.

- 25. Power plants and Engines: General description, Engine fuel/oil system, starting, ignition system, thrust reverser, engine pressure ration/N1/N2/EGT/TGT indications and limitations, power and power checks procedures. Propellers, RPM-normal/max and limitations. Auxiliary system.
- 26. Warning systems: Master caution, Mach Air Speed warning, Stall Warning, landing gear configuration warning, Take off warning.

#### Paper III Definitions & Performance- Aeroplanes

- 1. Runway, Stopway, Clearway, TORA, ASDA, TODA, TOR required, TOD required, LD required, LD available, VMCG, Vs, V1, VMCA, VLO, V2, VREF, CAS, VNE, VY, ISA, Density altitude, Specific fuel consumption, range etc.
- Presentation of data in FCOM, Performance One engine inoperative take-off Climb limits, field limits, tyre speed limits, VMBE limits, Max. ZFW, landing weight limits. Improved climb technique.
- 3. General Performance Mandatory and Recommendatory Performance.
- 4. One engine inoperative regulations governing T. 0, Enroute, approach and landing, gradient and obstacle clearance.
- 5. Take-off flight path (gross, net segments)
- 6. Definition and effect of wet, contaminated R/W and anti-skid inoperative performance.
- 7. Weights and Balance: Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations.

#### Paper III Definitions & Performance - Helicopters

- 1. Runway, Stopway, Clearway, TORA, ASDA, TODA, TOR required, TOD required, LD required, VMCG, Vs, V1, VMCA, VLO, VNE, V2, VREF, Vy, VTOSS, CAS, Density Altitude, International Standard Atmosphere, Specific Fuel Consumption, Range, C.D.P.etc.
- 2. Presentation of data in AFM and FCOM. Performance One engine inoperative, Take-off climb limits, field limits, tyre speed limits, VMBE limits, Max. ZFW and landing weight limits.
- 3. General performance Mandatory and Recommendatory performance
- 4. One engine inoperative regulations governing take-off, enroute, approach and landing.
- 5. Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations.

# Application for Issue of Student Flight Engineer licence

- 1. Full name of Applicant (in block letters)
- 2. Permanent Address
- 3. Name and address of the operator
- 4. Date of birth(supporting document to be produced)
- 1. Educational qualification(supporting document to be produced)
- 2. Details of maintenance experience
- 3. Details of basic and Type course conducted by the operator
- 4. Result of Basic and type course conducted by DGCA
- 5. Certificate of medical fitness
- 6. R/T licence No. and validity.
- 7. Fees as per Rule 48.

DATE

Signature of Applicant/Chief of operations

# Application for Renewal of Student Flight Engineer licence

- 1. Full name of Applicant (in block letters)
- 2. Permanent Address
- 3. Name and address of the operator
- 4. SFE Licence No. date of issue and Validity
- 5. Certificate of medical fitness
- 6. R/T licence No. and validity.
- 7. Fees as per Rule 48

DATE

Signature of Applicant/Chief of operations

### Application for Issue of Flight Engineer licence

- 1. Name of Applicant (in block letters)
- 2. Permanent Address
- 3. Name and address of the operator
- 4. Date of birth(supporting document to be produced)
- 5. SFE Licence Number and validity
- 6. Maintenance Certification on the Diversionary Inspection
- 7. Details of flying experience
- 8. Result of the Oral cum Practical Test
- 9. Certificate of medical fitness
- 10. R/T licence No. and validity.
- 11. Fees as per Rule 48.

Note Necessary documentary evidence such as log books for flying experience, Certificate for Route checks and Profile Checks shall be submitted along with the application.

DATE

Signature of Applicant/Chief of operations

# Application for Renewal of Flight Engineer licence

- 1. Name of Applicant (in block letters)
- 2. Permanent Address
- 3. Name and address of the operator
- 4. FE Licence Number and validity
- 5. Total hours flown during the last one year
- 6. Total hours flown during the last six months
- 7. Certificate of medical fitness
- 8. R/T licence No. and validity.
- 9. Non-flying certificate (if applicable)
- 10. Fees as per Rule 48.

Note Necessary documentary evidence such as log books for flying experience, Certificate for Simulator/Route Checks and Refresher Course certificate shall be submitted along with the application.

DATE

Signature of Applicant/Chief of operations.

# Application for Endorsement of Flight Engineer licence

- 1. Name of Applicant (in block letters)
- 2. Permanent Address
- 3. Name and address of the operator
- 4. Current SFE/FE Licence Number and validity
- 5. Total hours flown during the last one year on the type aircraft/simulator.
- 6. Total hours flown during the last six months on the type
- 7. Result of the Oral cum Practical Test
- 8. Certificate of medical fitness
- 9. R/T licence No. and validity.
- 10. Fees as per Rule 48.

Note Necessary documentary evidence such as log books for flying experience, Certificate for Simulator/Route Checks and Refresher Course certificate shall be submitted along with the application.

DATE

Signature of Applicant/Chief of operations.

# Application for Endorsement of Student Flight Engineer licence

- 1. Name of Applicant (in block letters)
- 2. Permanent Address
- 3. Name and address of the operator
- 5. Current SFE/FE Licence Number and validity
- 6. Details of maintenance experience
- 7. Details of basic and Type course conducted by the operator
- 8. Result of Basic and type course conducted by DGCA
- 9. Details of having passed Basic and Type Course
- 10. Type of aircraft on which endorsement desired.
- 11. Certificate of medical fitness
- 12. R/T licence No. and validity.
- 13. Fees as per Rule 48.

Note Necessary documentary evidence such as log books for flying experience, Certificate for Simulator/Route Checks and Refresher Course certificate shall be submitted along with the application.

DATE

Signature of Applicant/Chief of operations.

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