



GOVERNMENT OF INDIA

OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION
TECHNICAL CENTRE, OPP SAFDURJUNG AIRPORT, NEW DELHI

CIVIL AVIATION REQUIREMENTS

SECTION 5 – AIR SAFETY

SERIES F PART IV

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EFFECTIVE: FORTHWITH

F. No. DGCA.15032 (02)/1/2019-DAS

SUBJECT: Procedure for breath-analyser examination of the personnel engaged in Aircraft maintenance, Air traffic control services, Aerodrome operations, Ground handling services for detecting consumption of Alcohol.

1. INTRODUCTION

1.1 It is a well-known fact that alcohol is a sedative, hypnotic, and addicting drug. It impairs judgment and leads to behavior that can easily contribute to or cause accidents. Even when the blood alcohol levels are zero in the body, there could be some effect of hangover, which is mainly due to congeners. A hangover effect produced by alcoholic beverages after the acute intoxication has worn off, may be just as dangerous as the intoxication itself. Symptoms commonly associated with a hangover are headache, dizziness, dry mouth, stuffy nose, fatigue, upset stomach, irritability, impaired judgment, and increased sensitivity to bright light.

1.2 The majority of adverse effects produced by alcohol relate to the brain, eyes and inner ear, which are three crucial organs of any person associated with safety-related activities.

- Brain effects include impaired reaction time, reasoning, judgment and memory. Alcohol decreases the ability of the brain to make use of oxygen.
- Visual symptoms include eye muscle imbalance, which leads to double vision and difficulty in focusing.
- Inner ear effects include dizziness and decreased hearing perception.
- If such other variables are added as sleep deprivation, fatigue, medication use, the negative effects are significantly magnified.

1.3 Para 1.2.7.1 of ICAO Annex -1 states that “Holders of licences shall not exercise the privileges of their licences and related ratings while under the influence of any psychoactive substance which might render them unable to safely and properly exercise these privileges”.

Federal Aviation Administration, USA and Civil Aviation Authority, UK have developed and published their policy for detection of consumption of psychoactive substance including alcohol by personnel engaged in safety sensitive functions.

1.4 This Civil Aviation Requirement lays down the procedure to be followed for the breath-analyzer examination for consumption of alcohol, of the personnel engaged in safety sensitive functions pertaining to airside operations. It also lays down the provision for enforcement action for violation.

1.5 This CAR is issued under the provisions of Section 5 (A) of Aircraft Act 1934, Rule 21 A and Rule 24 (3) read with Rule 133A of the Aircraft Rules, 1937.

2. DEFINITIONS

Aerodrome Operation Personnel	Personnel manning Apron control, Personnel involved in operational duty on air side, aerobridge operator and Aerodrome Rescue & Fire Fighting Personnel(ARFF)
Air Traffic Controller	Air Traffic Controller” means a person on duty in an air traffic services unit and entrusted with the task of giving instructions, clearance or advice to aircraft by approved means of communication in the interest of safety of aircraft operations
Air Traffic Control Services	A service provided for the purpose of: a) preventing collisions: 1) between aircraft, and 2) on the manoeuvring area between aircraft and obstructions; and b) expediting and maintaining an orderly flow of air traffic.
Breath-analyser Examination	Test conducted on personnel to measure alcohol in his/her exhaled air so as to determine the concentration of alcohol in the blood.
Ground Handling Agency	An entity established for the purpose of providing ground handling service at an airport and security cleared by the Bureau of Civil Aviation Security and duly appointed by the airport operator

Ground Handling Personnel	Vehicle Drivers (including catering and refuelling vehicles), equipment operators, Marshalls
Maintenance	The performance of tasks required to ensure the continuing airworthiness of an aircraft, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair or test.
Maintenance Personnel	Aircraft Maintenance Engineer or any other technically trained person authorized to carry out maintenance of aircraft and taxi operation .
Medical Personnel	Medical Personnel for the purpose of this CAR means: 1. Doctor holding MBBS degree 2. The following 'Allied Health and healthcare professionals' as per the National Commission of Allied and healthcare professions Act 2021: a) Emergency Medical Technologist b) Advance Care Paramedics c) Operation Theatre Technologist d) Anaesthesia Assistants and Technologists 3. All professionals registered under the Nursing Council of India/State Nursing Council 4. All professionals registered under the Pharmacy Council of India/State Pharmacy Council
Psychoactive substances	Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded
Safety-sensitive employees	Persons who might endanger aviation safety if they perform their duties and functions improperly. This definition includes, but is not limited to, technical air crew, cabin crew, aircraft maintenance personnel, air traffic controllers, and security screeners.

3. APPLICABILITY

Provisions of this Civil Aviation Requirements are applicable to the following:

- 3.1 Organisations engaged in the provision of Air Traffic Control Services, Aerodrome Management, Aircraft Maintenance and Repair, Ground Handling Agency, Aircraft Operation.
- 3.2 Personnel employed in organizations as in para 3.1 whether holding licence/ approval/authorisation or non-licensed personnel i.e.
 - a. Air Traffic Controllers, Flight Despatchers.
 - b. Aircraft Maintenance personnel, Aerodrome operation personnel, Fire and rescue personnel, Vehicle drivers (including catering and refuelling vehicles) ground equipment operators and ground handling personnel.

4. SAFETY REGULATIONS

4.1. The organizations as in para 3.1 shall ensure that at least 25% individuals employed in their respective organizations as engaged in such functions as provided under para 3.2, are randomly subjected to breath-analyzer examination on a daily basis within one hour of reporting for duty. Such employees may also be informed one hour before commencement of duty regarding his/her breath-analyzer test. If such a person report sick after being contacted, and shows inability to join duty, then that person shall produce a medical certificate duly issued by a Registered Medical Practitioner, whenever he/she reports for duty. The medical certificate will be reviewed by organization. Aerodrome Management shall be responsible for the conduct of BA test on the personnel of the ground handling agency and the aerodrome operational personnel.

The Organizations must use a scientifically valid method such as a random-number table or a computer-based random-number generator to select the covered employees for testing. Each covered employee in the pool must have a unique identifier Employee Number, or other comparable identifying number. The employer must ensure that all employees have an equal chance of being tested each time the selection is made. Specific individuals or groups must not be targeted including certain occupational groups or locations. The concerned organization shall select 25% individual for the BA test before start of the shift and communicate to the person conducting the BA test and the individual selected for the BA test when he/she reports for the duty.

Note: - Whenever the 25% leads to a fractional outcome, the fraction is to be completed on the higher side and complete natural number is to be considered for selecting target population.

4.1.1 All maintenance personnel involved in aircraft taxi operations shall be subjected to breath-analyzer examination for alcohol consumption before undertaking any taxi operation of the aircraft.

4.2 As specified in Paras 1.4 and 3 of this CAR, no person shall consume any drug/formulation or use any substance mouthwash/tooth gel or any such product which has alcoholic content, prior to reporting for duty, as such alcohol content may lead to positive result in BA test. Any person, who is taking such medication shall consult the company doctor / doctor administering medication, before they undertake the assigned duty.

4.3 Save as otherwise provided, officer of Air Safety Directorate/Directorate of Medical Services (Civil Aviation)/Concerned Directorate of DGCA may require random breath-analyzer examination of personnel as covered in para 3.

4.4 In an event of suspicion regarding consumption of alcohol, Aerodrome Management may conduct random breath-analyzer examination of ground handling personnel and Aerodrome Operation Personnel. Similarly other organisation may also subject their employees to random BA test without compromising with the 25% of daily requirement for BA test.

5. EQUIPMENT USAGE AND CALIBRATION PROCEDURE

5.1 EQUIPMENT USAGE AND CALIBRATION

5.1.1 Organization shall make available at least two serviceable breath-analyzer equipment fuel cell technology based, capable of giving accurate digital value up to three decimal places in % BAC or mg/dL. The equipment shall have a memory to store and recall at least last 1000 records.

5.1.2 The breath-analyser equipment shall be used only in auto /active mode.

5.1.3 The breath-analyzer equipment shall be attachable to a printer. At least one serviceable printer for the breath-analyzer equipment shall be available at all times.

5.1.4 The breath-analyzer equipment shall be calibrated after 10,000 blows/at a frequency as recommended by the equipment manufacturer whichever is earlier from an agency having ISO certification. The date of the last calibration shall be appended on the instrument. Record of such calibrations shall be maintained by the employer. It shall be the responsibility of the employer to ensure continued serviceability of the breath-analyzer equipment and maintain such records.

5.2 CALIBRATION AGENCIES

5.2.1 The organization shall ensure the following with respect to the calibration agencies/labs contracted for calibration of their breath analyser equipment:

5.2.1.1 The contracted agencies/ labs engaged in calibration of their Breath Analyser Equipment carries out the calibration in accordance with the procedure and recommendations laid down by the manufacturer and should have ISO certification to undertake the calibration activity. The contracted agencies/labs issues a calibration certificate bearing a unique number for each calibration of Breath Analyser Equipment.

5.2.1.2 Calibration agency maintains at least following record:

- (i) Manual containing the calibration procedure prescribed by the manufacturer.
- (ii) **Incoming Record:** Calibration Agency maintains daily incoming record of BA equipment received for calibration. Record should clearly indicate Serial no. of the Equipment, Date and Time of receipt, Mode of receipt, Date of Last calibration, Name of the operator or BA test agency.

- (iii) **Dispatch Record:** The agency maintains dispatch record of the equipment including Date/time of dispatch, Mode of dispatch, Mode of Payment, Invoice number (Transaction Reference in case of online payment), Calibration Certificate number and validity.
- (iv) Calibration records of the equipment used in calibration process of Breath Analyser Equipment.

5.2.1.3 All the records in para 5.2 are preserved for a period of two years.

5.2.2 Organization shall facilitate the DGCA inspection for checking the compliance of the above mentioned requirements.

6. PROCEDURE FOR BREATH-ANALYZER EXAMINATION

6.1 Organisation shall have Medical Personnel to conduct the breath-analyser examination at a designated place within the airport premises/perimeter. Alternatively organisations may pool their resources including personnel used for conducting BA test or avail the breath-analyzer examination services of Govt. /Govt. licensed private hospitals/ aerodrome operator/ Private organizations, holding the facility to carry out breath-analyser test in the premises of the aerodrome/Medical facilities established by Aerodrome operator. Such facilities shall be subjected to periodic checks by the DGCA.

Note: In case of Flying Training Organisations, in addition to medical personnel the trained safety officer of the concerned flying training organization can also conduct breath analyser test.

6.2 Before each test, the Medical Personnel shall run an 'air blank' on the instrument and obtain a reading of 0.000. The Medical Personnel shall also carry out a control test on daily basis and keep a record of printout to ensure serviceability of both the breath-analyzer equipment and the printer. Any BA reading during examination of a personnel above 0.000 shall be considered as positive result. Breath-analyzer examination shall be recorded on camera and recording shall be preserved for a period of six months.

6.3 Breath-analyzer examination record shall be maintained as per the format given in Appendix I and Appendix II.

6.4 If the breath-analyzer examination result is positive, a repeat test shall be carried out within 15-25 minutes. Once a subject personnel is detected positive, medical personnel on duty, shall provide the proforma as per Appendix-I and the subject personnel shall give declaration in respect of the use of equipment (same or alternate) for conduct of second test on that proforma.

During this time, the subject personnel may be permitted to wash his face and rinse his mouth, if desired. Before the second test is carried out, a control test must be taken on the equipment being used to verify the serviceability and correctness of the breath-analyzer. Both the readings so obtained shall be recorded and print out taken. The second test shall be carried out in the presence of a witness as designated by the organisation, who shall countersign the test report.

6.5 The make, serial number and calibration status of the breath-analyzer shall be recorded in the event a personnel is detected positive for alcohol consumption. Under no circumstances, third test shall be conducted.

6.6 If the second test is satisfactory, the concerned personnel may be cleared for duty.

6.7 All the breath-analyzer examination positive /refusal cases shall be promptly reported but not later than 24 hours of occurrence to the concerned Regional Offices of the DGCA and at DGCA (HQ) as per table below:

S. No.	Personnel	Concerned Directorate of DGCA
1.	Maintenance personnel engaged in aircraft taxi operation	Air Safety Directorate
2.	Maintenance personnel (except taxi operation)	Airworthiness Directorate
3.	Air Traffic Control Officer	AS & ANSS Directorate/ATCO Licensing Division
4.	Aerodrome Operation personnel	Aerodrome Directorate
5.	Ground Handling Personnel	Aerodrome Directorate
6.	Flight Despatcher	Flight Standards Directorate

7. ACTION ON POSITIVE TEST

7.1 For BA readings up to 0.005 %BAC or mg/dl, the person other than the ground handler would be off rostered and subjected to counselling by the Chief Medical Officer / Chief of flight Safety on adverse impact of alcohol and subsequently release for duties

In case of ground handling agency the person would be off rostered from safety sensitive duties and released after counselling by Departmental Head.

Any repeat BA positive case would attract enforcement action as per the para 7.2 considered as first violation and further violations as per Para 7.3 to Para 7.6.

7.2 Any person, who tests breath-analyzer examination positive for the first time/refuses to undergo the breath-analyser examination/refuses to undergo the breath-analyser examination the second time upon being tested positive during the first test/ attempt to evade the breath-analyzer examination by leaving the airport premises or performs duty without undergoing breath-analyzer examination in compliance to para 4.1 of this CAR, shall be kept off duty and his/her license/approval shall be suspended for a period of three months. Non-licenced/non approval holder, shall be removed from safety sensitive functions for a period of three months.

7.3 In case of second such violation of the provisions contained in Para 7.1 of this CAR, the license/approval issued by DGCA, of the concerned person shall be suspended for a period of one year. Non-licenced/ non approval holder, shall be removed from the performance of safety Sensitive function for a period of one year.

- 7.4 In case of third such violation of the provisions contained in Para 7.1 of this CAR, the license/approval issued by DGCA of the concerned person shall be suspended for a period of three years. Non-licenced/non approval holder, shall be removed from safety sensitive functions for a period of three years.
- 7.5 In case of fourth such violation of the provisions contained in Para 7.1 of this CAR, the license/approval issued by DGCA of the concerned person shall be cancelled and non-licenced/non approval holder shall be removed permanently from sensitive functions.
- 7.6 For the ground handling personnel and aerodrome operational personnel, who do not hold any licence/approval, the concerned aerodrome operator/Organization shall formulate a procedure for temporary removal from the duty and/or permanent removal from the duty of a personnel involved in violation of para 7.1 to 7.4.

8. PRESERVATION OF RECORDS

The Employer/Organisation conducting BA Test shall maintain records of breath-analyser examination for the personnel. All the relevant records must be preserved for a period of one year.

9. GENERAL

- 9.1 It shall be the responsibility of organisations to document the process for the Breath Analyser examination in their respective manuals and ensure wide publicity of the procedure.
- 9.2 Each Organisation shall submit monthly data in respect of Para 7 of this CAR to the concerned Directorate as per the table in para 6.7 at DGCA (HQ) latest by 10th of every month for the immediate preceding month.

(Faiz Ahmed Kidwai)
Director General of Civil Aviation

Appendix I

(NAME OF THE ORGANISATION)
MEDICAL EXAMINATION FOR ALCOHOL

Sl. No.

To be filled by Person undergoing the BA test (in Capital Letters)

I hereby report for the duty

Name Job Function/designation.

License No. /Approval No. if Applicable

Emp. No. Place Date Time of Reporting

Signature

Declaration of subject personnel

(Tick the option applicable)

1. I wish to undergo confirmatory test on the same Breath- Analyser Equipment.
Or
I wish to undergo confirmatory test on the alternate Breath- Analyser Equipment.

(Name & Signature of subject personnel)

Declaration by Medical Personnel

2. The choice of Breath- Analyser Equipment has been exercised by the subject personnel.

(Name & Signature of Medical Personnel)

To be filled up by the Medical Personnel

3. Result of first test at hrs. %BAC or mg/dL
4. Result of Control test at hrs. %BAC or mg/dL
5. Result of second test at hrs. %BAC or mg/dL

Remarks: He/she is not under/under the influence of alcohol at present.

Signature of Witness
Name
Designation.....
Date/Time

Signature/Name of Medical Personnel
Date/Time.....

Appendix II

BREATH-ANALYSER EXAMINATION FOR ALCOHOL

Place: Date:

Name of the Medical Personnel:

NOTE: In case a Personnel is tested 'Positive' in first test, a separate Form is required to be filled up as in "Appendix I" by the Medical Personnel and countersigned by the witness.

S No.	Name (in capital Letters) of Personnel undergoing BA Test	Emp. No./ Unique I.D.	Job Function	Time of Reporting	I hereby report for the duty. Signature of personnel undergoing BA Test	BA Reading (in %BAC) Or mg/dL	Time of BA Test	Equipment Serial Number	Signature of Medical Personnel	Remarks