



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
ISSUE I, 16th SEPTEMBER 2019

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 Agency, 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. ~~Implementation Time frame:~~

~~The schedule for implementation of this Civil Aviation Requirement by applicable stake holders shall be as per the table in Appendix III~~

3. 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.
Medical Personnel for the purpose of this CAR	Doctor holding MBBS degree/trained Paramedics /Emergency Medical Technician (EMT)/Personnel holding BSC (Nursing)/Diploma (Nursing)
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.

4. APPLICABILITY

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

- 4.1 Organisations engaged in the provision of Air Traffic Control Services, Aerodrome Management, Aircraft Maintenance and Repair, Ground Handling Agency, Aircraft Operation.
- 4.2 Personnel employed in organizations as in para 4.1 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.

5. SAFETY REGULATIONS

- 5.1. The organisations as in para 4.1 shall ensure that at least ~~10%~~ 25% individuals employed in their respective organisations as engaged in such functions as in para 4.2, are randomly subjected to breath-analyser examination on a daily basis, when they report for the duty. Aerodrome Management shall responsible for the conduct of BA test on the personnel of the ground handling agency and the aerodrome operational personnel.

The Organisations 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 organisation shall select ~~10%~~ 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: If the number of employees is less than “ten”, at least one employee is to be subjected to the breath-analyzer examination. Similarly, whenever the 10%~~ 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.

- 5.2 As specified in Paras1.4 and 4 of this CAR, no person shall consume any drug/formulation or use any substance mouthwash/tooth gel etc., ~~which may have alcoholic content~~ 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.
- 5.3 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 4.
- 5.4 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 ~~10%~~ 25% of daily requirement for BA test.

6. EQUIPMENT USAGE AND CALIBRATION PROCEDURE

6.1 EQUIPMENT USAGE AND CALIBRATION

6.1.1 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 with a memory to store and recall at least last 1000 records.

6.1.2 The breath-analyser equipment shall be used only in auto mode.

6.1.3 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.

6.1.4 The breath-analyzer equipment shall be calibrated after 10,000 blows/~~six months~~/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.

6.2 CALIBRATION AGENCIES

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

6.2.1.1 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.

6.2.1.2 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.

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

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

7. PROCEDURE FOR BREATH-ANALYZER EXAMINATION

7.1 Organisation shall have a Doctor holding MBBS degree/trained Paramedics/Emergency Medical Technician (EMT)/Personnel holding BSC (Nursing)/Diploma (Nursing) to conduct the breath-analyser examination at a designated place within the airport premises. 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, located 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 above mentioned medical personnel the trained safety officer of the concerned flying training organization can also conduct breath analyser test.

7.2 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.

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

7.4 If the breath-analyzer examination result is positive, a repeat test shall be carried out after an interval of maximum ~~15-20~~ 20-25 minutes. Once a subject personnel is detected positive, medical personnel as in para 7.1 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 ~~with the same equipment~~ 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.

7.5 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.

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

7.7 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	Airworthiness Directorate
2.	Air Traffic Control Officer	AS & ANSS Directorate
3.	Aerodrome Operation personnel	Aerodrome Directorate
4.	Ground Handling Personnel	Aerodrome Directorate
5.	Flight Despatcher	Flight Standards Directorate

8. ACTION ON POSITIVE TEST

8.1 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, 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.

8.2 In case of second such violation of the provisions contained in Para 8.1 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.

8.3 In case of third such violation of the provisions contained in Para 8.1 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.

8.4 In case of fourth such violation of the provisions contained in Para 8.1 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.

8.5 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 8.1 to 8.4.

9. 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.

10. GENERAL

10.1 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.

10.2 Each Organisation shall submit monthly data in respect of Para 8 of this CAR to the concerned Directorate as per the table in para 7.7 at DGCA (HQ) latest by 10th of every month for the immediate preceding month.

(Vikram Dev Dutt)
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 Doctor / Medical Personnel

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

(Name & Signature of Medical Officer)

To be filled up by the Medical Personnel

1. Breath-analyzer Result Negative/Positive
(Reading to be indicated in writing)
 2. If found positive the result of first test:
.....%BAC at.....hrs
 3. Result of second test at.... hrs%BAC
 4. Sr No. of BA Equipment used
- Remarks: He/she is not under/under the influence of alcohol at present.

Signature of Witness

Signature/Name of Medical Personnel

Name and Designation

Date/Time.....

Date/Time

Name of the Medical Personnel:

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

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Appendix III

~~IMPLEMENTATION SCHEDULE OF THE PROVISION OF THIS CIVIL AVIATION REQUIREMENT:~~

~~The effective date for implementation of this CAR by the applicable organisations as per the aerodrome of operation is as follows, however all organisations are encouraged to Implement by 2nd October 2019.~~

S.No.	Organisations operating at the Aerodrome	Date for implementation
1.	Delhi, Mumbai, Bangalore, Chennai, Hyderabad, Kolkata, Ahmedabad, Cochin, Lucknow, Guwahati	30.10.2019
2.	Jaipur, Bhubaneswar, Trivandrum, Indore, Patna, Juhu(Mumbai), Calicut, Coimbatore, Visakhapatnam, Nagpur, Varanasi, Mangalore, Bagdogra, Ranchi, Vijayawada, Goa, Pune, Srinagar, Raipur, Amritsar, Chandigarh, Madurai, Jammu, Trichy, Port Blair, Bhopal, Dehradun, Surat, Udiapur, Rajahmundry, Tirupati, Agartala, Vadodara	30.11.2019
3.	Remaining licenced Aerodromes	31.12.2019