
GACAR PART 156 – ENVIRONMENTAL SUSTAINABILITY REGULATIONS

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GACAR PART 156 – ENVIRONMENTAL SUSTAINABILITY REGULATIONS

SUBPART A – GENERAL

§ 156.1 General.

(a) This part prescribes the regulations pertaining to the environmental sustainability of the civil aviation sector in the Kingdom of Saudi Arabia. This part aims to minimize the environmental impact of civil aviation activities and promote sustainable practices that reduce greenhouse gas emissions and noise pollution, protect biodiversity, enhance air quality, conserve energy and water, and improve management of waste.

(b) For the purposes of this part, the following definitions apply:

(1) **GHG:** Greenhouse gases are gases in the atmosphere that raise the temperature of the planet by absorbing the radiation that the planet emits, resulting in a greenhouse effect. They are namely carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

(2) **Noise:** the unpleasant and undesirable sound that adversely affects the health of humans and living species, and environment quality, that arises from various human activities such as manufacturing, transportation, construction work, and others.

(3) **Aerodrome traffic density:**

i) **Light.** Where the number of movements in the mean busy hour is not greater than 15 per runway or typically less than 20 total aerodrome movements.

ii) **Medium.** Where the number of movements in the mean busy hour is of the order of 16 to 25 per runway or typically between 20 to 35 total aerodrome movements.

iii) **Heavy.** Where the number of movements in the mean busy hour is of the order of 26 or more per runway or typically more than 35 total aerodrome movements.

Note 1 — The number of movements in the mean busy hour is the arithmetic mean over the year of the number of movements in the daily busiest hour.

Note 2 — Either a take-off or a landing constitutes a movement.

(4) **Noise Contours:** lines on a map that represent equal levels of noise exposure.

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(5) **Noise Exposure Map:** a scaled, geographic depiction of an aerodrome, its noise contours, and surrounding area.

(6) **Environmental Permit:** A certificate document issued by the KSA National Centre for Environmental Compliance (NCEC) that permits the requesting entity to operate their activities.

§ 156.3 Applicability. This part prescribes the applicable environmental sustainability regulations stipulated upon the following GACA certificated entities as per each subpart:

(a) Certificated aerodrome under GACARs Parts 139, 138, and 137.

(b) Certificated air operators under GACAR Part 119.

(c) Certificated repair stations under GACAR Part-145.

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SUBPART B – GREENHOUSE GAS EMISSIONS

§ 156.5 General.

This subpart prescribes the regulations related to Greenhouse Gas (GHG) emissions from aviation-related activities that contribute to climate change.

§ 156.7 Aircraft emissions.

(a) Applicability. The provisions of this section are applicable to GACA certificated aircraft operators under GACAR Part-119 operating turbine engine powered airplanes.

(b) Operators must comply with the applicable requirements stipulated in GACAR Part 34 - Fuel Venting and Exhaust Emission Requirements for Turbine Engine-Powered Airplanes.

§ 156.9 Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

(a) Applicability. The provisions of this section are applicable to all aircraft operators certified under GACAR Part 119.

(b) Aircraft operators certificated under GACAR Part 119 must comply with the applicable requirements stipulated in GACAR Part 157 - Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

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SUBPART C – NOISE

§ 156.11 General.

This subpart stipulates the regulations concerning civil aviation noise pollution which has the potential to become a significant concern for communities living in proximity to aerodromes and flight path.

§ 156. 13 Aircraft noise.

(a) Applicability. The provisions of this section are applicable to all aircraft operators certificated by GACA under GACAR Part-119.

(b) Operators must comply with the applicable requirements stipulated in GACAR Part 36 – Noise Standards: Aircraft Type and Airworthiness Certification.

§ 156.15 Aerodrome noise exposure maps.

(a) General. This subpart prescribes the regulations governing the development of noise exposure maps.

(b) Applicability. This section is applicable to all aerodrome operators certificated under GACAR Parts 137, 138, and 139 within KSA, with Medium or Heavy Traffic Density.

(c) Development of Noise Exposure Maps:

(1) To determine the extent of noise impact, aerodrome operators must develop and submit noise exposure maps to the GACA. The objective of the noise exposure map is to identify existing and future noncompatible land uses, based on aerodrome operation and off-aerodrome land uses. Noise exposure maps must be developed with accompanying documentation setting fourth –

- i. The noise exposure based on forecast aircraft operations at the aerodrome for a forecast period that of at least 5 years in the future, beginning after the date of submission (based on reasonable assumptions concerning future type and frequency of aircraft operations, number of nighttime operations, flight patterns, aerodrome layout including any planned

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aerodrome development, planned land use changes, and demographic changes in the surrounding areas); and

ii. The nature and extent, if any, to which those forecast operations will affect the compatibility and land uses depicted on the map.

(2) Noise exposure maps must be developed in consultation with the relevant municipality or commission who has the responsibility of developing the city master plans. The master planner should provide inputs for the land uses used in the noise exposure map.

Note 1 – Guidance material concerning the development of noise exposure maps is provided in Recommended Method for Computing Noise Contours Around Airports (Doc 9911).

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SUBPART D – ENVIRONMENTAL PERMITS

§ 156.17 General.

This subpart prescribes regulations pertaining to environmental permits which serve as a compliance mechanism to ensure that a comprehensive understanding and effective mitigation of all environmental impacts is conducted prior to commencing the construction or operation of specific activities.

§ 156.19 Pre-construction/Operating Environmental Permit.

(a) Applicability. The provisions of this section are applicable to all aerodrome operators, and repair stations certificated under GACAR Parts 137,138, 139 and 145 within KSA.

(b) Certificate holders must comply with the applicable requirements stipulated in the Executive Regulations for Environmental Permits for Establishing and Operating Activities for the Environment Law.

(c) All aerodrome operators and repair stations certificated under GACAR Parts 137,138, 139 and 145 within KSA must have a valid Environmental Permit issued by the National Center for Environmental Compliance (NCEC).

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SUBPART E – LOCAL AIR QUALITY

§ 156.21 General.

This subpart prescribes regulations pertaining to the preservation of local air quality by defining and limiting the allowable percentages of pollutants in the environment.

§ 156.23 Local Air Quality.

(a) Applicability. The provisions of this section are applicable to all aerodrome operators certificated under GACAR Parts 137, 138, 139.

(b) Aerodrome operators must comply with the applicable requirements stipulated in the Executive Regulations for Air Quality and Executive Regulations for Ozone-Depleting Substances and Hydrofluorocarbons issued by the Ministry of Environment, Water, and Agriculture (MEWA).

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SUBPART F – BIODIVERSITY PROTECTION

§ 156.25 General.

This subpart prescribes regulations pertaining to the application and adoption of suitable waste management practices.

§ 156.27 Protection of biodiversity and the natural environment.

(a) Applicability. The provisions of this section are applicable to all aerodrome operators and repair stations certificated under GACAR Parts 137, 138, 139 and 145 within KSA.

(b) Operators must comply with the applicable requirements stipulated in the following executive regulations published by the Ministry of Environment, Water, and Agriculture (MEWA):

- (1) Executive Regulation for Sustainable Management of the Marine and Coastal Environment,
- (2) Executive Regulation for the Protected Areas,
- (3) Executive Regulation for the Prevention and Remediation of Soil Pollution,
- (4) Executive Regulation for the Environmental Rehabilitation of Degraded Sites and Remediation of Polluted Site.

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SUBPART G – WASTE MANAGEMENT

§ 156.29 General.

This subpart prescribes regulations pertaining to the application and adoption of suitable waste management practices.

§ 156.31 Waste management executive regulations.

(a) Applicability. The provisions of this section are applicable to all aerodrome operators and repair stations certificated under GACAR Parts 137, 138, 139, and 145.

(b) Operators must comply with the applicable requirements stipulated in the Implementing Regulations for The Waste Management Law issued by the National Center for Waste Management (MWAN).

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SUBPART H – WATER AND ENERGY MANAGEMENT

§ 156.33 General.

This subpart prescribes the water and energy supply and consumption as well as wastewater disposal and treatment regulations.

§ 156.35 Water management regulations.

(a) Applicability. The provisions of this section are applicable to all aerodrome operators certificated under GACAR Parts 137, 138, and 139.

(b) Operators must comply with the applicable requirements stipulated in the Water Law Implementing Regulations issued by the Ministry of Environment, Water, and Agriculture (MEWA).

§ 156.37 Energy management regulations.

(a) Applicability. The provisions of this section are applicable to all aerodrome operators certificated under GACAR Parts 137, 138, and 139.

(b) Certificated aerodrome operators must comply with the applicable requirements stipulated in the following Water and Electricity Regulatory Authority implementing regulations:

- (1) The Electricity Law Implementing Regulations.
- (2) The Regulatory Framework for the Electric Vehicle Charging Activity.
- (3) Regulatory Framework for Small-Scale Solar PV Syst