

Air Quality Management

Issue

Aviation industries emission accounts for about 2 percent of human-generated global carbon dioxide emissions and contributes about 3 percent of the potential warming effect of global emissions that affects the earth's climate. Air quality change at airports surrounding are result of increased greenhouse gas (GHG) emissions by Aircraft emission, Vehicle, Auxiliary Power Unit (APU) and Ground Power Unit (GPU). Transport links to an airport, particularly private vehicles and trains etc. also make a significant contribution to air quality deterioration in & around the airports.

Background

The International Civil Aviation Organisation (ICAO) recommends the certification standards for the Aircraft engine emission characteristics of aircraft in Annex 16, Vol-II. In India these criteria are then enforced by national regulatory authority "Directorate General of Civil Aviation (DGCA)". In India "National Ambient Air Quality Standards, 2009" amended under Environment (Protection) Act, has been established by Central Pollution Control Board (CPCB) and enforcement of these standards and monitoring is carried out by respective State Pollution Control Board (SPCB) or Committee.

Relevance to DIAL

Delhi International Airport (P) limited (DIAL) operates and maintains the Indra Gandhi International Airport (IGIA). It facilitates national and international passenger and airlines for their national and international movements. At DIAL Air quality is being managed with the help of Airlines and ground handling agencies and Air Traffic Service (ATS) and DGCA. All regulatory requirements are fulfilled and communicated to state and central pollution control board.

DIAL Management and Actions

Air quality management is one of the major focus areas in IGI Airport; DIAL has taken various initiatives on Air quality management after takeover of IGIA from Airports Authority of India (AAI).

To manage the air quality at IGIA, DIAL monitors air quality inside & outside the airport on regular basis. Air quality monitoring is done for parameters such as Suspended Particulate Matter (SPM), Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x), Hydrocarbon Carbon (HC) and Carbon Monoxide (CO).

DIAL has initiated various measures on emission reduction which include working on emissions from Aircrafts, Vehicles, Auxiliary Power Unit (APU) and Ground Power Unit (GPU). To reduce the APU and GPU utilization, DIAL has installed Fixed Ground Power Unit (FGPU) facility in its New Terminal T3. DIAL also initiated Green House Gas inventory program to establish the emission data for mobile and ground vehicles. It also facilitates employees to reduce their carbon foot print by carpool network initiative.

DIAL new integrated terminal 3 which is highly energy efficient building with features like-

- Natural day lighting
- Use of construction materials & interior finishes with high recycled content
- Use of environmental friendly vehicles

Other Air quality improvement initiatives taken by DIAL are:

- Establishment of a CNG filling station inside the airport
- Usage of battery operated vehicles for transferring passengers from one terminal to another.
- Use of dust screens and water sprinklers at construction area to prevent gusting dust.
- Encouraging organization to save energy and conserve natural resources.