

PCAA comments on the new WHO Global Air Quality Guidelines published 22 September 2021.

EXPANSION OF BRISTOL AIRPORT TO 12MPPA PINS REF APP/D0121/W/20/3259234

PLANNING APPLICATION REF: 18/P/5118/OUT

Bristol Airport's operations impact on air quality for residents in two ways: firstly from emissions from flights and secondly from vehicles for ground operations and for passengers travelling to and from the airport. The PCAA has commented on air quality in our submission (dated 1 February 2019) to the planning application and in our Statement of Case (Health section, paragraph 49). We have referenced the harmful impacts on health of emissions of nitrogen dioxide and particulate matter.

The new guidelines, below, significantly tightened since 2005 show that air pollution is increasingly recognised as a threat to people's health. The Airport's present activities are harmful and, with growth to 12 mppa if granted consent, they will become even more harmful.

Recommended 2021 AQG levels compared to 2005 air quality guidelines.¹

Pollutant	Averaging time	2005 AQGs	2021 AQG level
PM _{2.5} , µg/m ³	Annual	10	5
	24-hour ^a	25	15
PM ₁₀ , µg/m ³	Annual	20	15
	24-hour ^a	50	45
O ₃ , µg/m ³	Peak season ^b	–	60
	8-hour ^a	100	100
NO ₂ , µg/m ³	Annual	40	10
	24-hour ^a	–	25
SO ₂ , µg/m ³	24-hour ^a	20	40
CO, mg/m ³	24-hour ^a	–	4

In 2019 with the Airport at approximately 9 mppa, the Operations Monitoring Report CD 14.07 shows that:

- The BAL average NO₂ level, shown Figure 10, varies between 12.9 and 23 µg/m³ on a monthly basis (annual average 17 XX). This is clearly well above the new AQG level of 10µg/m³.
- The Particulate Matter monthly average for BAL (Figure 11) varies between 12.2 and 23.2 µg/m³ (annual average 17 µg/m³). Again this is above the AQG level of 15µg/m³.

The PCAA notes that the effects of the proposed development are shown in Dr Broomfield's evidence to the Inquiry. Dr Broomfield states that although it may comply with current regulations, PM_{2.5} will increase with expansion leading to increased risk of mortality and other health effects on local residents. Bristol Airport would be unable to operate currently or expand within the new guidelines.

The PCAA do not believe that the modernisation of the fleet of aircraft will allow the pollutants to diminish substantially to allow growth. Inq /010 document on air traffic forecast shows that, under the Core growth scenario in Table 1, there will be still 20,270 existing generation aircraft movements annually which is 55 movements a day (nearly 27% of all flights).

The new guidelines are a clear demonstration that air quality must be very significantly improved in order to support the main policies surrounding the issue, such as CD5.08.1, NPPF, point 86 and 105 and CD 5.06 point CS3 living with environmental limits. There is, however, little in BAL's application to indicate that there will be any marked improvement in air quality and the failure to do this should weigh heavily in the evaluation of the airport's expansion plans at the Public Inquiry.

References:

1. <https://www.who.int/news-room/q-a-detail/who-global-air-quality-guidelines>