

**FIONA BRUCE MP**



HOUSE OF COMMONS  
LONDON SW1A 0AA

[REDACTED]

3<sup>rd</sup> June 2019

CA [REDACTED] FB/HC

*Please quote this reference on any correspondence*

Dear [REDACTED]

Please find enclosed copy of the letter received from Baroness Vere of Norbiton in response to the representations I made on your behalf regarding aerotoxic poisoning.

I hope that the Minister's detailed letter is helpful by way of clarification on the Government position on this matter.

With kind regards,

Yours sincerely,

**Fiona Bruce MP**  
**Member of Parliament for the Congleton Constituency**  
[www.fionabruce.org.uk](http://www.fionabruce.org.uk)

*Serving communities across Alsager, Astbury, Betchton, Brereton, Church Lawton, Congleton, Cranage, Elworth, Ettiley Heath, Goostrey, Holmes Chapel, Middlewich, Moston, Mount Pleasant, Mow Cop, Rode Heath, Sandbach, Scholar Green, Smallwood, Somerford, Swettenham, Twemlow, Wheelock and the surrounding areas*

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## Department for Transport

Fiona Bruce MP  
House of Commons  
London  
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**Baroness Vere of Norbiton**  
Transport Minister for Aviation, International  
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Our Ref: MC/255235  
Your Ref: CA/ [REDACTED] /HC

26 May 2019

Dear Fiona,

Thank you for your letter of 17 April to Baroness Sugg, enclosing correspondence from your constituent, [REDACTED] about aerotoxic poisoning. I am replying as the Minister now responsible for aviation.

Maintaining the excellent safety record of UK aviation is something the Department for Transport (DfT) takes very seriously. That is why concerns raised about cabin air have been investigated at length over a number of years.

Our priority is always the safety of passengers and crew and we continue to work with airlines, manufacturers and international regulators to drive improvements in safety standards across the industry. We understand the concerns that have been raised about cabin air quality and we take very seriously any suggestions that people have suffered ill health as a result of flying.

We rely on guidance from scientific experts based on the results of a number of independent studies and evidence reviews - including Government commissioned research. The overall conclusion of those studies is that there is no positive evidence of a link between exposure to contaminants in cabin air and possible acute and long-term health effects, although such a link cannot be excluded.

On most commercial aircraft the cabin air supply is provided by air drawn from the compressor stage of the engine, known as engine bleed air. Contamination, or fume events, may occur when oil or hydraulic fluid is released into this air, for example as a result of an oil seal failure, resulting in the formation of an oil mist or odour in the aircraft cabin.

Following a recommendation in 2007 by the Committee on Toxicity (an independent committee of toxicology experts) the Department commissioned a series of scientific studies as part of a research programme into cabin air. The principal research study, carried out by Cranfield University, was published in 2011 and found that, with respect to the conditions of flight experienced during the cabin air sampling, there was no evidence for pollutants occurring at levels exceeding health and safety standards and guidelines. Levels observed in the flights that formed part of the study were comparable to those typically experienced in domestic settings.

These reports were formally submitted to the Committee on Toxicity for consideration in 2012. The Committee on Toxicity considered the research reports, as well as other research published in the scientific literature since 2007, and subsequently published a position paper on cabin air in December 2013. The references to all material reviewed by the Committee can be found at the end of the report.

The main findings of this paper were that exposure from chemicals in bleed air would need to occur in far higher concentrations than those found during the studies to cause serious toxicity, and that the symptoms which have been reported following fume events have been wide-ranging and less specific than those that typically occur from chemical toxicity. As a toxic mechanism for the reported illnesses was found to be unlikely, a nocebo effect (when symptoms are worsened by an inert substance) was considered a plausible alternative explanation. However, neither option could be proven beyond doubt using the available data. The full paper can be found at

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/270113/colpospapcabin.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/270113/colpospapcabin.pdf)

As a toxic mechanism could not be confidently ruled out as the cause of the symptoms, the Committee concluded that more research would be beneficial. It stated, however, that the possible benefits of a new research project would need to be carefully considered against the costs of undertaking the new research.

Due to the unpredictability and rarity of the fume events, and due to the international nature of the aviation industry, it is the Department's view that an international approach to any future research investigations is appropriate. The opportunity of collecting data from a broader sample base than is available in the UK alone, would lead to higher probability of more meaningful evidence being collated. The Department, therefore, wrote to the European Aviation Safety Agency (EASA) with these views in March 2014.

In spring 2015, EASA launched a preliminary inflight cabin air measurement campaign, the results of which were published on 23 March 2017. EASA commissioned two studies with the aim to gain solid scientific knowledge about cabin air quality on board large aeroplanes operated for commercial air transport. Further information can be found at

<https://www.easa.europa.eu/newsroom-and-events/press-releases/easa-publishes-two-studies-cabin-air-quality>

In summary, the results show that the cabin/cockpit air quality is similar or better than what is observed in normal indoor environments. No occupational exposure limits and guidelines were exceeded.

As a follow-up, the current EASA managed FACTS project ("Facts about cabin air quality on-board large transport aircraft") aims to characterise the composition and concentration of pollutants in the cabin following a contamination event, and to assess the potential health impact as well as potential mitigation means. The project involves in-flight and on the ground tests where the chemical composition and possible toxicity of air samples will be analysed after being deliberately contaminated with engine oil. Further information can be found at <https://facts.aero>.

We continue to support steps to further develop understanding of the air quality on board aircraft, including a further research by the European Commission being undertaken in conjunction with EASA, which maintains responsibility for approving the safety of aircraft and setting aviation standards for European airlines.

Based on the above, the Department has no plans to commission further research or to seek further advice from the Committee on Toxicity in the foreseeable future. I would like to emphasise that all research pertaining to aerotoxic syndrome on behalf of the Government have so far been conducted in an open and transparent manner.

I hope this information is of use to your constituent.

Yours,

*Charlotte*

**BARONESS VERE OF NORBITON**