

Re: Peer Review Terms of Reference

BAA is committed to transparency and to working with our stakeholders. We have therefore appreciated that it would be helpful for stakeholders to have an independent assessment of the air quality modelling that informs our submission to the government's consultation on SERAS.

In support of this objective we are facilitating an independent peer review of our work and have produced some terms of reference which sets out:

- our objectives
- our approach
- the members of an expert panel whom we would propose to formally invite to participate
- proposed guidance for the peer review panellists

We hope to have results back from the peer review process by mid July and will be making these available to stakeholders. In the meantime, we would be pleased to answer any specific questions which stakeholders have on the outputs of this process and to feed in suggestions for improvement as part of the peer review process.

Air Quality Modelling Peer Review

Terms of Reference

Our Objectives

The Peer review is driven by two supporting objectives, as follows:

- To gain independent expert advice on the appropriateness and robustness of the detailed technical air quality modelling work that underpins BAA's SERAS consultation response.
- To share outputs of the peer review with stakeholders in order to build consensus on BAA's approach and support more accurate assessment of impacts.

Our Approach

Our approach to the peer review follows 3 phases (of which this is the first):

- Phase 1:** Recruit panellists
- Phase 2:** Issue guidance and documentation to agreed peer review panel. Inform stakeholders of peer review process, and get feedback
- Phase 3:** Compile and publish peer review outputs (panellists review documents before publishing)

We plan to complete phase 3 by the middle of July.

The Proposed Expert Panel

We propose that the following are appropriate criteria for short-listing peer review panellists.

- Nationally recognised experts in air quality (for example members of DEFRA's Air Quality Expert Group)
- Recognised experts in air quality modelling and specifically air transport or road transport modelling

Applying these criteria we have approached the following experts to ask if they would like to be involved in the review, on a no fee basis:

Name	Summary of Expertise ¹
Professor Helen ApSimon	Member DEFRA Air Quality Expert Group Head of Environmental modelling, measurement and assessment Imperial College Led academic independent research of air quality at Heathrow
David Carslaw	Member DEFRA Air Quality Expert Group Principal scientist environment research group King's College Expertise in dispersion modelling, emission inventories, monitoring Pollution modelling for London and input to GLA and TfL
Professor Duncan Laxen	Member DEFRA Air Quality Expert Group Extensive expertise air quality modelling and monitoring Input to air quality assessment of Gatwick for Reigate and Banstead BC
Dr David Carruthers	Member DEFRA Air Quality Expert Group Experience of modelling and assessment of local air quality. Member of the Steering Committee for a series of workshops on the Harmonisation in Europe of Dispersion Models for Regulatory Purposes
Stephen Moorcroft	Member DEFRA Air Quality Expert Group Twenty five years experience air quality Responsible for management of UK automatic urban and rural network. Led and drafted much of technical guidance on local air quality management. Input to air quality assessment of Gatwick for Reigate and Banstead BC

Subject to confirmation Stephen Moorcroft, David Carslaw and Professor Helen ApSimon have agreed to take part in the peer review process.

We welcome your comments.

Guidance for Peer Review Panellists

To help with the peer review we have scoped a number of key questions. These questions are intended to offer the peer review panel guidance on the type of feedback that would most readily support the objectives and help to ensure consistency across the panel.

Although the detailed peer review document provides the full context, as an aide memoir, we have preceded each question with a very brief contextual summary.

¹ See www.defra.gov.uk/environment/airquality/aqeg/members.htm

Context

The original Department for Transport (DfT) air quality model was developed to allow stakeholders to compare the air quality effects of the various SERAS options. The DfT's consultants recognised that absolute numbers were both conservative ie. worst case and subject to significant uncertainty. The work commissioned by BAA has focused on increasing the absolute predictive accuracy of the model and is offered as an improved basis for assessing impacts. The approach has focused on the key uncertainties and to allow comparison of the outputs has, as far as practicable, aimed to ensure consistency with the DfT's original methodology

Question

Can you comment on the detailed air quality modelling work commissioned by BAA, specifically on the robustness of our approach and the data and assumptions that underpin:

- **The revised inventory of aircraft emissions**
- **The change in the dispersion parameters governing modelling of aircraft emissions**
- **The adjustment of non aviation related emissions**

Peer Review feedback

Context

The revised baseline assessments at Gatwick and Heathrow have been produced on the basis of additional information on actual aircraft operations and local monitoring data, and are offered as an improved basis for assessing impacts and the effects of different mitigation options.

Question

Can you comment on the robustness of the revised baselines, specifically their helpfulness in supporting more accurate assessment of impacts and appropriateness for assessing different mitigation options?

Peer Review feedback

Context

For Heathrow we have identified a set of mitigation scenarios and modelled their cumulative effects on reducing the number of people that are predicted to fall within areas that would be subject to exceedences of the EU NO₂ limit value in the timeframe specified by the DfT.

Question

Can you comment on our approach and on the technical modelling of our proposed mitigation scenarios?

Peer Review Feedback

Context

We recognise that although this work has addressed much of the known bias in the original SERAS model there remains work which could improve it. We therefore list in our submission our proposed work programme going forward.

Question

Can your comment on our work programme. Specifically can you suggest other further work to improve the modelling of air quality associated with the Heathrow and Gatwick SERAS options, in each case setting out briefly the key objective, associated tasks and benefits in terms of addressing the residual uncertainties.

Peer Review Feedback

We welcome any other comments you may have

Thank you for your input.

Please return to Dr Emma Noble by email on emmajayne@europe.com