



Highways Agency (DRAFT) Significance Guidance: Review and Discussion

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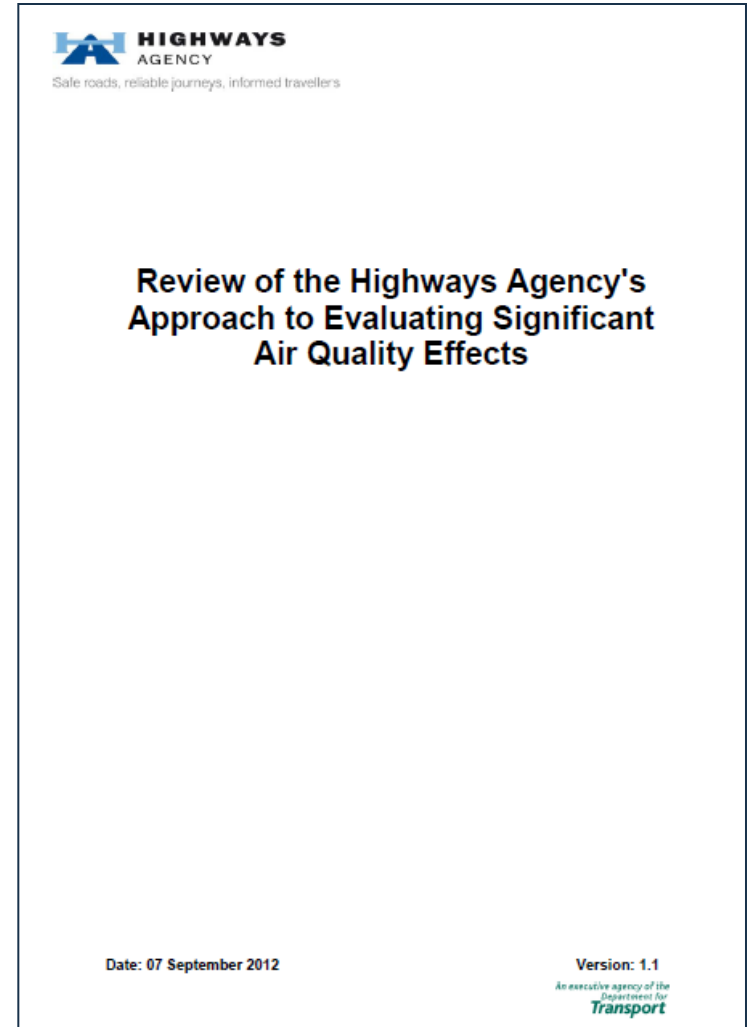
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- ▶ Guidance Documents and Summary
- ▶ Current / Previous Approach
- ▶ Key Points
 - Significance and Exceedences
 - Impact Characteristics
 - Professional Judgement
 - IAQM Significance Criteria
- ▶ IAQM Evaluation

► Review of the Highways Agency's Approach to Evaluating Significant Air Quality Effects

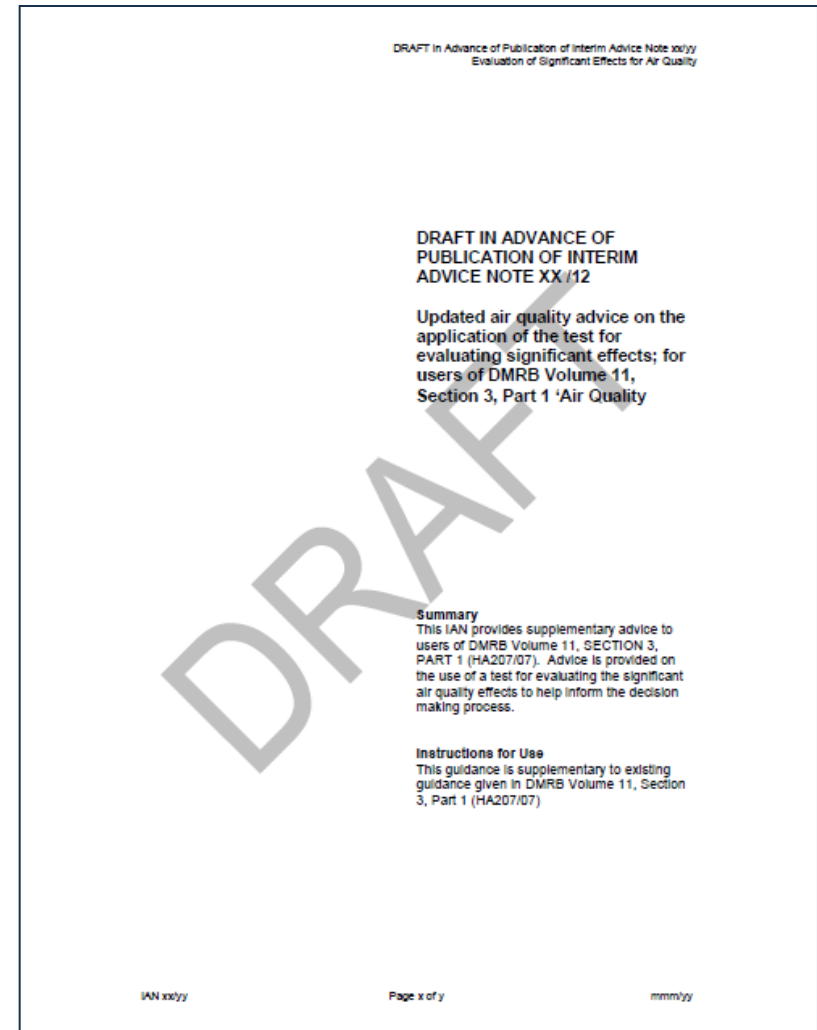
- Issued 07 September 2012
- Version: 1.1 (Final)

- Circulated to IAQM Members on 14 September 2012
- Deadline for 'comments' closed on 5 October 2012



► DRAFT In Advance of Publication of Interim Advice Note (IAN)

- Updated air quality advice (supplementary guidance) on the application of the test for evaluating significant effects; for users of DMRB Volume 11, Section 3, Part 1 (HA 207/07) 'Air Quality'
 - Includes supporting spreadsheet
 - Future IAN to be used forthwith on relevant projects in England, where air quality assessments are undertaken, and where such projects have yet to be submitted for statutory process, including the Determination of the need for a statutory Environmental Impact Assessment (EIA)



► Need for Updated Advice?

- A (technical) review of the HA's approach to evaluating significant air quality impacts for the purposes of Environmental Impact Assessment (EIA)
 - To reflect national planning policy changes (National Planning Policy Framework) whilst still meeting requirements of the EIA Directive (2011/92/EU)
- In light of this review, the HA is developing a new approach to evaluating significant air quality impacts

- ▶ The approach to evaluating significant air quality effects:
 - A series of ‘indicators’ (7) to help gather the required information to inform the professional judgement (ANNEX 1: Box A1.1)
 - The focus is on any receptor that exceeds air quality thresholds in either the without scheme and/or with scheme scenario
 - Reporting of significance using a ‘checklist approach’ (ANNEX 2: Table A2.1)
 - 17 checklist questions based on EIA Directive Annex III, some (8) considered to be ‘not relevant’ and annotated accordingly
 - ‘should not be used solely as a series of tests for the judgement of significant impacts’

▶ Forming a Professional Judgement

- A suitably qualified professional should provide a judgement of impact significance and a commentary with supporting evidence
 - Based on all of the indicators
 - In the context of the total number of receptors

- ▶ Significant air quality impacts are identified on the basis of whether or not a scheme makes air quality worse **overall** in relation to compliance with the air quality limit values
 - Sum of change received at relevant receptors that are predicted to experience an exceedence of the EU Limit Value in either the without or with scheme scenario (*Annual Mean NO₂*)
 - < 0 or 0 = Not significant
 - > 0 = Significant
 - HA recognises the need to improve this approach taking better account of impact characteristics

► Significance and Exceedences

- The HA acknowledges that some of the key principals of the AQ Directive are to maintain air quality where they are below the limit values and endeavour to preserve the best ambient air quality; *however...*
- “The HA proposes to base its decisions on whether an air quality impact from its schemes are significant by taking into account of areas identified through the scheme assessment as being over the limit values...”

Note: Complementing Circular 02/99: Environmental Impact Assessment para. 40 states “... in considering the sensitivity of a particular location, regards should also be had to whether any national or international agreed environmental standards are already being approached or exceeded”

- ▶ Annex III Criteria ‘impact characteristics’ and determination of significant effects
 - Relevance to air quality
 - Extent
 - Magnitude
 - Probability
 - Duration and Reversibility
 - Not strictly relevant
 - Transfrontier Nature
 - Complexity
 - Frequency

► Extent

- Appropriate to consider the number of (relevant) receptors affected
- Scale is to be taken to be the size of the effect relative to the size of the project, e.g. large number of receptors affected compared to only a few affected to a great degree
- The judgement overall may be the effect is insignificant when judged at the scale of the project overall

► Magnitude

- Large impacts that happen below relevant air quality thresholds may be less important than those that happen around and over thresholds

A single improving receptor 42 $\mu\text{g}/\text{m}^3$ to 41 $\mu\text{g}/\text{m}^3$ vs. 10,000 worsening receptors taking concentrations up to 40 $\mu\text{g}/\text{m}^3$?

- Large scale changes could generate significant effects depending on the context, e.g. number of receptors experiencing large changes

► Probability

- Acknowledging monitoring and modelling uncertainty, an air quality assessment is based on the most reasonable, robust and representative methodologies, thus whatever the outcomes of the air quality assessment, it can be considered to have a **high probability** that they will occur and the results and consequent evaluation of significance can be used to inform professional judgement accordingly

Does application of the most reasonable, robust and representative methodologies infer that the results of a forecast scenario have a high probability of occurrence?

Is more than 'acknowledgement' of monitoring and modelling uncertainty required when considering impact probability?

► Probability

- In identifying a probable significant effect the HA proposes to take the following into account:
 - Precision in the numbers used: number of decimal places, scale of change that can be confidently determined
 - Accumulating factors: meeting more than one of the checklist tests

► Duration and Reversibility

- To be considered in relation to the averaging period of the relevant threshold
- A key factor in relation to duration might be the potential delay in the achievement of the relevant air quality threshold arising from the scheme beyond the timescales without the scheme

Does delay in achieving the relevant air quality threshold equate to duration of impact? Or would duration of impact equate to the year on year change in magnitude?

Once (if?) the relevant air quality threshold has been achieved with the scheme, does this mean there is no more significant impact?

► Duration and Reversibility

As the delay in achieving the air quality threshold will be directly related to the magnitude of the impact, does this add any value to the evaluation of significant effects?

Will the calculation of achievement of the air quality threshold without the scheme take into account the implementation of measures identified in the Air Quality Action Plan?

▶ Professional Judgement

- The HA propose to **guide / help shape** professional judgement in determining whether a project is having a significant effect on air quality
 - Provides a series of indicators and checklist upon which the professional judgement of the likely significance can be based
 - Seeks to describe the sensitivity, or capacity, for changes to air quality when compared with air quality thresholds, together with impact characteristics

▶ Professional Judgement

- A suitably qualified professional should provide a judgement of impact significance and a commentary with supporting evidence
 - Based on all of the indicators
 - In the context of the total number of receptors

How much scope is there in the guidance for professional judgement to be based on additional/supplementary evidence?

Has the Current/Previous Approach been revoked? Could this also be undertaken in addition to the proposed approach?

▶ Professional Judgement

- The information gathered using the checklist should not be solely used as a series of tests for judgements to determine the significance of scheme impacts; *however*
- The same information is to be compiled for all HA schemes to allow consistency in evaluation

Does this present a challenge?

▶ Professional Judgement

- The HA proposes to base **its decisions** on whether an air quality impact from its schemes are significant by taking into account (*only?*) areas identified through the scheme assessment as being over the limit values...

Might this lead to a decision which is contrary to the judgement of a suitably qualified professional that has provided commentary with supporting evidence

How does this affect Public Inquiry?

▶ Professional Judgement

- Professional judgement will, over time, be benchmarked against other scheme judgements to ensure broad consistency in application

How will this influence the professional judgement process?

How much scope is there for professional disagreement?

- ▶ HA's review of IAQM Air Quality Significance Criteria
 - Does not take account of all the relevant criteria guiding the determination of significant environmental impacts listed in ANNEX II of the EIA Directive, particularly the duration, frequency and reversibility of the impacts.
 - Nonetheless, the HA strongly support IAQM's position that the assessment of significance should include a clearly reasoned justification of the conclusions reached.

- ▶ Does the guidance achieve its objective?
 - ‘To reflect national planning policy changes (National Planning Policy Framework) whilst still meeting requirements of the EIA Directive (2011/92/EU)’?

- ▶ How does IAQM rate it compared to previous guidance?
 - Limited improvement / Substantial improvement / Still significant work required

- ▶ What next?



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