

Useful information to support your diffusion tube results

1. Nitrogen Dioxide (NO₂)

This is a toxic gas which your diffusion tubes measure. It is often colourless which means you usually won't be able to see it, although sometimes an orange haze can be seen hanging over a city from a distance.

NO₂ ["inflames the lining of the lung and reduces immunity to lung infections such as bronchitis"](#).

2. Obligations/legal limits

Clean Air London have put together [a very good summary](#) of the different obligations and legal limits.

If you'd like more detail, please use the links below.

- [The UK's requirements under EU law](#)
- [The UK's limits,](#)
- [The EU legal limits](#)
- [The World Health Organisation \(WHO\) recommended levels](#)

3. Are EU and WHO standards adequate?

The WHO have found health effects at lower levels than current EU limits for NO₂, prompting them to look at revising their guidelines.

The [WHO say the EU levels](#) should be brought into line with the WHO's.

4. NO₂ – are we meeting current limits?

EU legal limits for NO₂ should have been met by 2010, or 2015 at the latest with an extension. However by 2015, of a total of 43 Air Quality Zones the government use to report on air quality, only 5 Zones (Blackpool Urban Area, Preston Urban Area, Highland, Scottish Borders, and Northern Ireland), and possibly the Brighton/Worthing/Littlehampton Urban Area, had met these limits. The other 38/37 zones had recorded an annual mean above the EU legal limit.

The delay in tackling our illegal levels of NO₂ has resulted in the Government being taken to court, and in 2015 Client Earth won their case. The UK Supreme Court ordered the government to come up with effective plans by the end of the year to meet NO₂ legal limits in the shortest time possible. The government produced final plans in December 2015 but these showed that most Zones would not meet limits till 2020, and London not till 2025.

The [table on pages 11 and 12 of the Overview report](#) linked from here shows the dates each Zone has, or is expected to, meet the limits (and there are links to plans for each Zone).

However Client Earth has [launched another legal case](#) against the Government, stating that the plans do not go far enough to protect human health. There is also the possibility the UK Government could be fined by the EU for not complying with the legal limits.

5. Premature deaths:

Nationally: outdoor air pollution is responsible for 40,000 premature deaths a year in the UK, according to the [Royal College of Physicians \(RCP\) and Royal College of Paediatrics and Child Health](#).

Locally: [Public Health England](#) have figures for every UK Local Authority for attributable deaths due to human-made particulates of PM air pollution (as total numbers and as a %). **NB** these figures are for particulate air pollution only, so with NO₂ this would be expected to be a bit higher.

6. Local Authority information

Your council website should have some information about air quality in your area. They have responsibilities under the [Local Air Quality Management](#) (LAQM) regime.

You can also look for what monitoring your council does, for reports on your air – and whether they have an Air Quality Management Area/AQMA (for which they need an AQ plan) which you could also look for here <https://uk-air.defra.gov.uk/aqma/>

7. Action required

Much bolder action than is currently being planned by the government is needed to help save lives and protect health, and to meet legal limits in the shortest time possible, as required. A combination of measures is needed, including to reduce emissions from all sources, but particularly to ensure the UK moves to both cleaner and fewer vehicles. Diesel vehicles will need to be phased out – while this is not a sufficient response, it is a necessary one.

Friends of the Earth is calling for:

A phase-out of diesel by 2025: the government needs to commit to the following to enable this:

- A carefully-planned and generous scrappage scheme must be developed with manufacturers to help those who bought diesels in good faith to get rid of them
- Stop diesel and petrol cars being available for sale from 2025
- Changes need to be made to road tax (VED) to reverse the incentive for diesel

Restricting the dirtiest vehicles: Clean Air Zones (CAZ's) are needed in all the UK's cities and major towns, not just the 5 currently being proposed beyond London by the government. For London an Ultra-Low Emission Zone (ULEZ) which covers the whole of the capital, combined with Road User Charging, is needed. Other measures such as banning buses running on diesel power from air pollution hotspots are required.

Traffic reduction: traffic levels need to be cut, and this would also help create liveable places of benefit to all. Targets would facilitate the effectiveness of measures which must include:

- reducing the need for people to have to travel unnecessarily by providing key amenities and work opportunities within easy walking and cycling distance
- investing in walking, and pedestrianisation schemes – including consideration of the whole of central London
- investing in making cycling safer, and in better and more affordable public transport, plus supporting clean car clubs and freight consolidation
- avoiding traffic-generating developments, such as road building or airport expansion, which worsen the air pollution problem

Planning to avoid exposure: “New schools, hospitals and care homes must not be built next to air pollution hotspots” and “existing schools next to busy roads should also be fitted with air filtration systems” According to the Environmental Audit Committee (<http://www.parliament.uk/report-air-quality>).

Emergency traffic restrictions: these to be put in place when air pollution is bad – our current option is to restrict people's behaviour, which isn't acceptable.

Obligations: London must meet limits for NO₂ by 2020 so that it does so no later than the rest of the country, rather than 2025 as the government currently plan. The government must also commit to maintaining and upholding EU protections on air

pollution regardless of the outcome of Brexit, and set out how World Health Organisation recommended levels will be met.

