



The Environment Act and Air Quality

Air quality and ill-health

- 40,000 deaths each year in the UK alone are attributable to poor air quality
- Philip Barlow, coroner for inner south London, ruled in 2021 that air pollution from traffic was a cause of the tragic death of nine-year-old Ella Kissi-Debrah in February 2013.
- It was the first time that toxic air had been given as a cause of death in the UK.
- The coroner said Ella had been exposed to nitrogen dioxide and particulate matter (PM) pollution in excess of WHO guidelines
- The principal source of which was traffic emissions.

The story so far...

- July 2017 - Government published the 'UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations' (the NO2 plan)
- Supplement published 2018
- £3.8 billion investment into cleaner transport and air quality.

Air quality exceedances

- The supplementary plan focused on resolving the most immediate air quality challenge - nitrogen dioxide concentrations around roads - to meet statutory air quality limits.
- A total of 28 local authorities were directed to produce plans to tackle NO₂ exceedances.
- The most persistent exceedances were required to consider introducing a charging Clean Air Zone.
- A further 35 had to develop plans to tackle shorter term exceedances.

The Clean Air Strategy 2019

Set out the comprehensive actions required across all parts of government to meet legally binding targets to reduce emissions of five key pollutants:-

- Fine particulate matter (PM_{2.5}) – traffic emissions
- Sulphur oxides (SO_x), -
- Nitrogen oxides (NO_x),
- Ammonia (NH₃) and
- Non-methane volatile organic compounds (NMVOCs)

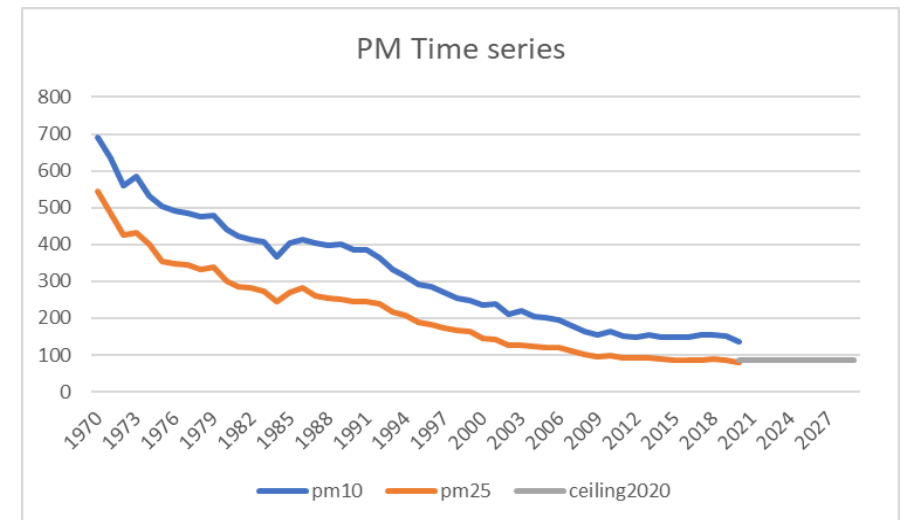
Fine particulate matter

Domestic combustion

- Coal use in domestic combustion was the largest source of particulate matter emissions but coal now accounts for a very small proportion of emissions from this source (14% in 2020).
- The use of wood as a fuel accounted for 70% of PM2.5 emissions from DC in 2020.
- Emissions of PM2.5 from domestic wood burning increased by 35% between 2010 and 2020, to represent 17% of total PM2.5. emissions in 2020.

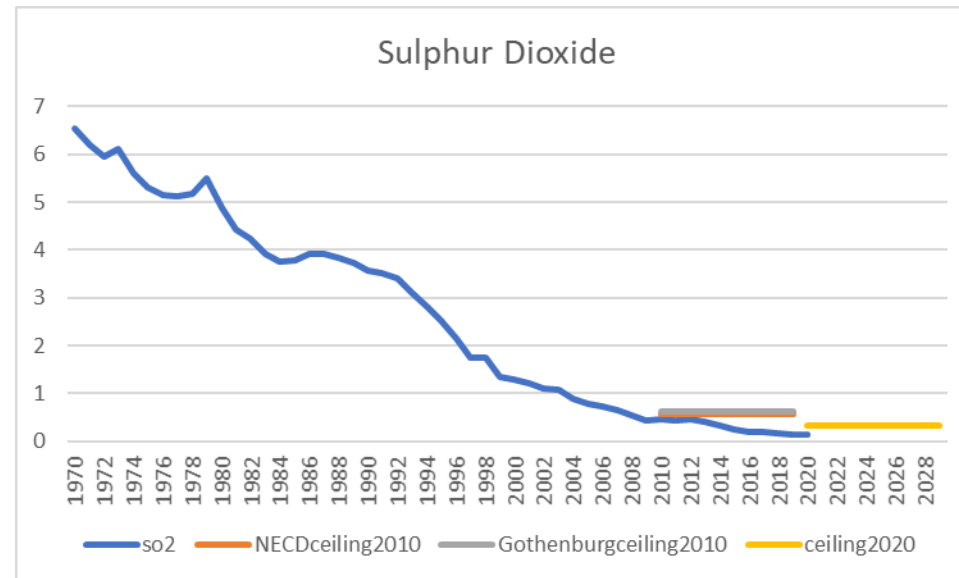
Road transport remains a significant source of PM emissions (12 per cent of PM10 and 13 per cent of PM2.5 in 2020).

- Exhaust emissions decreased markedly since 1996 due to stricter emissions standards (90%)
- Largely unchanged between 1996 and 2020 (3% lower).



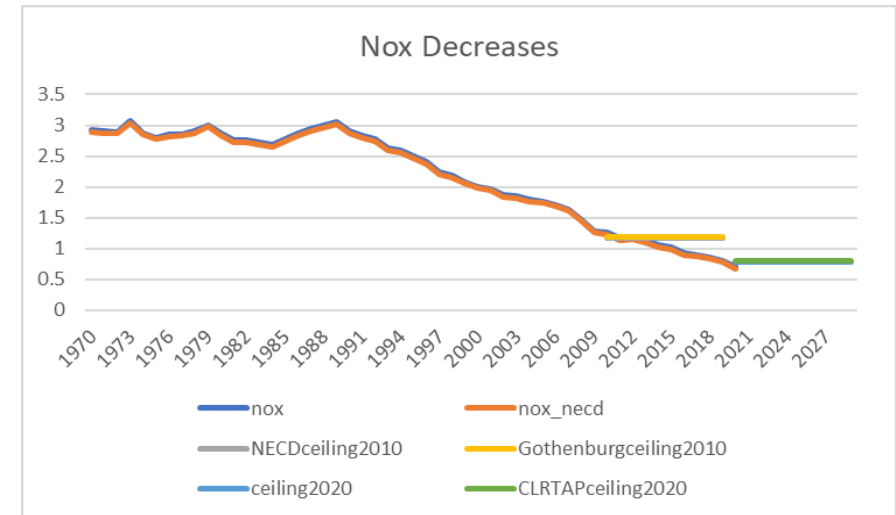
Decrease in Sulphur Dioxides

- Emissions of sulphur dioxide have fallen by 98% since 1970, to 136 thousand tonnes in 2020.
- Emissions decreased by 13% from 2019 to 2020, dropping to the lowest level in the time series.
- Driven by a decline in coal use in power stations, continuing a long-term decrease in emissions from this source.



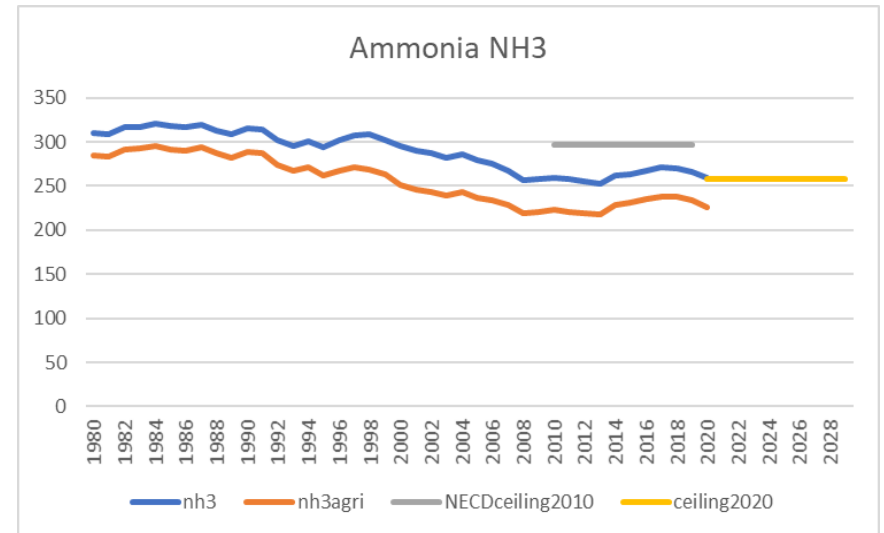
Nitrogen Oxides

- In 2020 the UK was non-compliant with the limit value placed on the annual mean NO₂ concentration at a small number of roadside locations in urban areas.
- A large reduction in road traffic activity in 2020 following the onset of the Covid-19 pandemic led to a substantial reduction in average roadside concentrations
- Road transport accounts for 28% of emissions of nitrogen oxides in the UK in 2020
- Other transport (aviation, rail, and shipping) is at 13%
- Emissions reductions from new vehicles



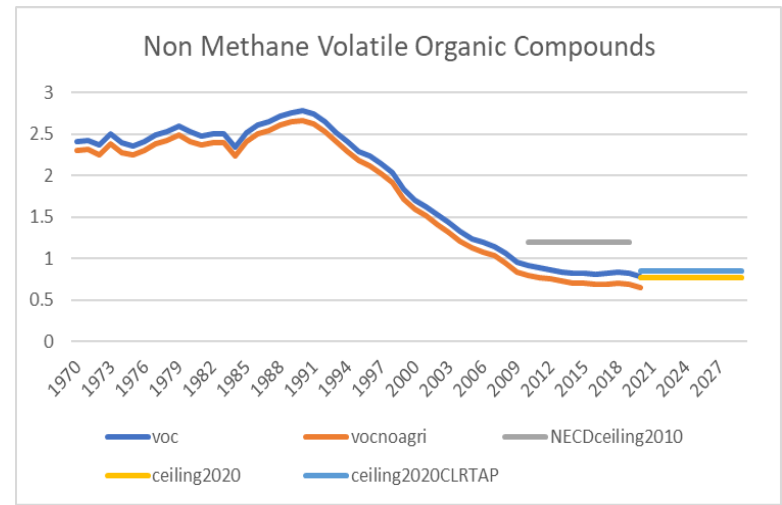
Ammonia (NH₃)

- Ammonia (NH₃) is a gas that only stays in the atmosphere for a few hours once emitted –but when mixed with other gases forms particulate matter (PM) which can exist for several days and be transported large distances.
- Plants and soils will be exposed to more nitrogen than they can cope with – this results in large changes to plant communities and animal species that rely on them.
- Emissions of ammonia have fallen by 16% since 1980
- There was a decrease of 3% in emissions between 2019 and 2020.
- Between 2013 to 2017, emissions increased by 7 per cent,
- Changes in the trend of emissions of ammonia are largely driven by changes to farming practices and herd sizes.



Non Methane Volatile Organic Compounds

- NMVOCs are emitted to the air as combustion products, as vapour arising from petrol, solvents, air fresheners, cleaning products, perfumes, and numerous other sources related to product use.
- Emissions NMVOCs have fallen by **67%** since 1970
- There was a decrease in emissions of 5% between 2019 and 2020.
- NMVOC emissions peaked in 1990 and then fell by an average of 5.4% per year between 1990 and 2009, due to improvements to emissions standards for road transport / stricter limits on industrial processes.
- Since 2010, annual changes have been much smaller, averaging a decrease of just 1.7 per cent each year. Since 1990, NMVOC emissions have fallen by **72%**.
- The UK met the emission ceilings for NMVOCs for the period 2010 to 2019.



What does the Environment Act do for Air Quality?

- Provides for Government to set targets on air quality including for fine particulate matter, the most damaging pollutant to human health.
- Some criticism that the Act needed to ensure that PM2.5 pollution targets were at least in line with World Health Organization (WHO) guidelines.
- Amendments tabled by Conservative MP Neil Parish, the Chair of the Efra Committee, and by Baroness Hayman in the Lords. Both received cross-party support
- Amendment fell in the Lords

What does this mean for councils?

- Councils and other relevant public bodies will be required to work together more closely to tackle local air quality issues
- It will be easier for local authorities to enforce restrictions on smoke emissions from domestic burning, which pollutes towns and cities.
- The government will also be required to regularly update its National Air Quality Strategy.
- The Act gives the government the power to make vehicle manufacturers recall vehicles if they do not comply with relevant environmental standards, ensuring illegally polluting vehicles are taken off the road quickly.

2 Environmental targets: particulate matter

- (1) **The Secretary of State must by regulations set a target (“the PM_{2.5} air quality target”) in respect of the annual mean level of PM_{2.5} in ambient air.**
- (2) The PM_{2.5} air quality target may, but need not, be a long-term target.
- (3) In this section “PM_{2.5}” means particulate matter with an aerodynamic diameter not exceeding 2.5 micrometres.
- (4) Regulations setting the PM_{2.5} air quality target may make provision defining “ambient air”.
- (5) The duty in subsection [\(1\)](#) is in addition to (and does not discharge) the duty in section 1 [\(2\)](#) to set a long-term target in relation to air quality.
- (6) Section 1 [\(4\)](#) to [\(9\)](#) applies to the PM_{2.5} air quality target and to regulations under this section as it applies to targets set under section 1 and to regulations under that section.
- (7) In this Part “the PM_{2.5} air quality target” means the target set under subsection [\(1\)](#).

Amendments to the Environment Act 1995

- **SCHEDULE 11**

LOCAL AIR QUALITY MANAGEMENT FRAMEWORK

1. The Environment Act 1995 is amended as follows.

Duty to report on air quality in England

As soon as reasonably practicable after the end of each financial year, beginning with the financial year in which this section comes into force, the Secretary of State must lay a statement before Parliament that sets out—

(a) the Secretary of State's assessment of the progress made in meeting air quality objectives, and air quality standards, in relation to England, and

(b) the steps the Secretary of State has taken in that year in support of the meeting of those objectives and standards

81A Functions of relevant public authorities etc

(1)The following persons must have regard to the strategy when exercising any function of a public nature that could affect the quality of air—

- (a)relevant public authorities;
- (b)local authorities in England;
- (c)county councils for areas in England for which there are district councils.

(2)In this Part, “relevant public authority” means a person designated in accordance with subsection [\(3\)](#) as a relevant public authority in relation to an area in England.

(3)The Secretary of State may by regulations designate a person as a relevant public authority in relation to an area in England if the person’s functions include functions of a public nature in relation to that area.

(4)Before making regulations under subsection [\(3\)](#) the Secretary of State must consult—

- (a)the person that is proposed to be designated, and
- (b)such other persons as the Secretary of State considers appropriate.

Where subsection (3) applies to a local authority, it must identify any parts of its area in which it appears that air quality standards or objectives are not likely to be achieved within the relevant period.

(5) Where subsection (3) applies to a local authority in England, it must also—

(a) identify relevant sources of emissions that it considers are, or will be, responsible (in whole or in part) for any failure to achieve air quality standards or objectives in its area,

(b) in the case of a relevant source within the area of a neighbouring authority, identify that authority, and

(c) in the case of a relevant source within an area in relation to which a relevant public authority or the Agency has functions of a public nature, identify that person in relation to that source.

(6) For the purposes of subsection [\(5\)](#), a source is “relevant” if—

(a) it is within the area of the local authority,

(b) it is within the area of a neighbouring authority in England, or

(c) it is within an area in relation to which a relevant public authority or the Agency has functions of a public nature and the local authority considers that the exercise of those functions is relevant to the source of the emissions.”

Duties of English local authorities in relation to designated areas

(1) This section applies in relation to a local authority in England.

(2) A local authority must, for the purpose of securing that air quality standards and objectives are achieved in an air quality management area designated by that authority, **prepare an action plan in relation to that area.**

(3) An action plan is a written plan that sets out how the local authority will exercise its functions in order to secure that air quality standards and objectives are achieved in the area to which the plan relates.

(4) An action plan must also set out how the local authority will exercise its functions to secure that air quality standards and objectives are maintained after they have been achieved in the area to which the plan relates.

(5) An action plan must set out particular measures the local authority will take to secure the achievement, and maintenance, of air quality standards and objectives in the area to which the plan relates, and must in relation to each measure specify a date by which it will be carried out.

(6) **A local authority may revise an action plan at any time, and must revise an action plan if it considers that there is a need for further or different measures to be taken to secure that air quality standards and objectives are achieved or maintained in the area to which the plan relates**

7) Subsections (8) to (10) apply where a district council in an area for which there is a county council is preparing an action plan, or a revision of an action plan.

(8) Where the county council disagrees with the contents of the proposed plan, or the proposed revision of a plan, a referral of the matter may be made to the Secretary of State by—

(a) the county council;

(b) the district council preparing the plan or revision.

(9) The Secretary of State may, on a reference made under subsection (8), confirm (with or without modifications) or reject the proposed action plan, or revision of an action plan.

(10) Where a reference has been made under subsection (8), the district council may not finally determine the proposed action plan or revision of an action plan, except in accordance with the decision of the Secretary of State on the reference or in pursuance of a direction made by the Secretary of State under section 85

Birmingham Clean Air Zone

- Introduced in June 2021
- Charge to enter the city for most high polluting vehicles inc private cars and taxis
- 10,000 responses to the consultation
- Benefits - assist in achieving legal safe air pollution levels and facilitate behaviour change
- Financial help provided for low earners – exemptions for 12 months for workers and 2 years for residents
- Category D allowed government funding to be bid for schemes such as a scrappage scheme and £2000 mobility credits for public transport

Interim report – 1 June 2021 – December 2021

Key findings of the report are that:

- There has been a reduction in the levels of NO₂ within the Zone (when comparing 2019 (pre Covid) to 2021 results) by an average of 13%
- From the launch of the Clean Air Zone the average rate of compliance for all vehicle categories has increased from 79.8% at the beginning of June 2021 to 88.8% at the end of December 2021.
- The rate of compliance for passenger vehicles has improved from 81.8% in June to 89.9% at the end of December 2021. Passenger vehicles account for around 88% of all unique vehicles that enter the Clean Air Zone on average each day.
- The report has also indicated that the rate of compliance for Light Goods Vehicles (LGV) has improved from 63.3% at the beginning of June 2021 to 77.4% at the end of December 2021.

Looking ahead

- Essential part of council approaches will be Clean Air Zones
- Monitoring of plans and targets
- Charges may be dropped once the ambitions of the CAZ achieved
- Issues now – shortage of supplies in second hand vehicles
- Older more polluting vehicles stay on the road
- Consider the impact of planting schemes
- Increases in walking and cycling routes – Active Travel plans
- 20 minute neighbourhoods

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