

PE2123: Update air quality standards in Scotland to align with 2021 World Health Organisation guidelines

Submission from Communities Against Woodsmoke, 23 June 2025

- 1. Do you support amending the Air Quality Standards (Scotland) Regulations 2010 to align with the 2021 WHO air quality guidelines? Please explain your reasoning.**

Yes we do. The amount of evidence showing the role that air pollution plays in exacerbating and causing a variety of illnesses is well documented throughout the world, therefore it is crucial that we take action on this issue. Other countries are pressing on with achieving alignment with the 2021 WHO air quality guidelines and Scotland should do so too.

- 2. What progress has been made in reducing nitrogen dioxide and fine particulate matter in Scotland since 2022/23, when we last sought views on this?**

There has been some encouraging findings regarding a decrease in Nitrogen Dioxide levels in areas where LEZs have been introduced. There has also been much work carried out to facilitate cycling within cities and towns a viable option for people. Lots of new cycling paths are being created and public access to electric bikes has increased. More electrified train lines are also helping, however many trees are being cut down to facilitate this and as trees are a vital carbon store and a home for wildlife, it is important that action is taken to restore this habitat that is being lost.

PM2.5 levels may appear to be going down generally but that is because the areas where PM2.5 levels are rising (in neighbourhoods in the suburbs) are not currently monitored by Local Authorities. There are however some air pollution sensors from Purple Air that are in the central belt and are measuring PM2.5 and these are clearly showing prolonged high levels of PM2.5 throughout the Autumn and Winter months particularly in the evenings and at weekends. These are areas where woodburning and the burning of other solid fuel is popular and there is very little traffic at these peak polluted times of the evening to account for the rise in PM2.5 levels, so the source can only be domestic burning.

- 3. To what extent has scientific and public health evidence about air quality evolved since the current standards were adopted? In your answer you could refer, for instance, to impacts on nitrogen dioxide or fine particulate matter on particular groups of people, the effect of Low Emission Zones (or**

other interventions of a similar nature) on air quality, or any new information or data about the effect of burning particular types of fuel.

- A new report from the Royal College of Physicians , titled: *A breath of fresh air: responding to the health challenges of modern air pollution* which synthesises a decade of research showing that even low concentrations of air pollution can cause harm across nearly every organ in the body.
- The report sheds light on the fact that air pollution in the UK is costing more than £500m a week in ill health, NHS care and productivity losses, with 99% of the population breathing in “toxic air”. Dirty air is killing more than 500 people a week, and costing more than £27 bn annually and causing health harm to almost every organ of the body, even when the pollution is at low concentrations. See this article (<https://airqualitynews.com/health/clean-air-day-air-pollution-still-costing-the-uk-billions-say-royal-college-of-physicians/>) from Air Quality News.
- In the UK, domestic combustion is a major source of PM2.5, contributing 20 % of total PM2.5 emissions in 2023 according to NAEI data. In recent years, most emissions from domestic combustion came from households burning wood indoors, which contributed 11 per cent of total PM2.5 emissions in 2023. This is creating very localised pollution hotspots in all streets where there are woodburning stoves and open fireplaces in use. This pollution is coming from flues that are just metres away from the windows of neighbouring properties and the pollution is present for many hours every evening and sometimes during the day. This pollution is building up and lingering due to cold, damp, still air meaning that neighbours of people who choose to burn solid fuel are being impacted severely by this type of health damaging pollution.
- This 2025 [Ricardo Energy and Environment report for Defra](#) shows that even the most modern woodburning stoves still produce shockingly high levels of PM2.5.
- The “Ecodesign” specification permits 40,000µg/m³ PM2.5 yet 25µg/m³ is the limit for PM2.5 at the side of a busy road in central London. These kinds of high levels of pollution from an Ecodesign woodburning stove should not be allowed to be produced mere metres away from neighbouring properties where it lingers for many hours at a time.
- According to research (<https://www.newscientist.com/article/2314156-health-impacts-of-wood-burning-cost-eu-and-uk-e13-billion-a-year/>) reported in the New Scientist back in 2022 , the pollution from using woodburning appliances for heating and/or cooking are responsible for 48% of the health costs from air pollution in the European Union and the UK. The [latest report](#) by the European Environment Agency states that 259,000 premature deaths per

year in the EU could be avoided if PM2.5 emissions were lowered. Restricting woodburning would greatly go towards reducing PM2.5.

- Another recent [study](#) involving 50,000 women found that those who used indoor wood stoves or fireplaces had a 43% higher risk of developing lung cancer compared to women who did not use wood heating. The study also indicated that more frequent use of wood stoves (over 30 days a year) was associated with an even greater risk, [according to a study from the Clean Air Programme](#). It is imperative that action is taken regarding woodburning.

4. The Scottish Government is currently reviewing the CAFS2 strategy with the goal of establishing a long-term policy framework to replace the strategy once it expires. What practical steps can the Scottish Government set out in its new strategy to reduce nitrogen dioxide and fine particulate matter levels?

- Stopping train engine idling at train stations particularly Waverly and Glasgow Queen Street would help greatly to improve air quality in these indoor areas.
- Prohibit the burning of garden waste by individuals and give local authorities effective powers to stop this. The current process of complaint on this issue is not fit for purpose and does not achieve anything.
- Run a public health awareness campaign informing the public of the health implications of burning both dry and wet wood. "Ready to Burn" is still very bad for our health. For many carcinogens and toxins, burning "Ready to Burn" wood in "modern" stoves (which the stove industry recommends) is worse than burning on open fires, eg. Benzene, 1,3-butadiene, Carbon Monoxide, non-methane VOC, Benzo[a]pyrene, Benzo[b]fluoranthene, benzo[k]fluoranthene, Dioxins, Fluoranthene. Some Local Authorities such as Hackney, Islington, Sheffield and Brighton England are already running awareness campaigns with Brighton's "Cosy Killer" campaign proving very successful. Scottish Local Authorities could do this too.
- Restrict the sale and use of wood burning stoves in areas where they are not necessary for heat
- Label wood burning stoves, firepits and chimineas as harmful to health to better educate consumers. Cigarettes have health warning labels on them and since the same chemicals are produced when wood is burnt (only in much larger quantities), it makes sense that any product that releases wood smoke be labelled as harmful to health because it is.
- We don't believe it is necessary to install more air pollution monitors in streets and villages where woodburning stoves and fireplaces are in use as it is clear from all the scientific evidence that woodburning causes localised peaks of

PM2.5 levels that persist for hours at a time, as can be seen on the Purple Air Map.