

From: [REDACTED]
To: [SizewellC](#)
Subject: Deadline 7 submission
Date: 01 September 2021 12:43:33
Attachments: [Post hearing submission for ISH8 on air quality from Frances Crowe.docx](#)

Dear Planning Inspectors,

Please find attached my Deadline 7 Post Hearing submission (including the written submission of my oral case) for Issue Specific Hearing ISH-8 on 25th August, 2021 on air pollution.

Whilst writing, I wish to reserve the right to speak at the following issue specific hearing: ISH12 (on Community, amenity, and recreational impacts; potential adverse effects on human health etc) on Weds 15th September. I will be away on holiday at the time so would have to participate virtually. However, in the event that it is not possible for me to participate because of my holiday, can you please confirm whether I should submit a written submission for consideration on the day (if so, by when) or should I wait to submit at Deadline 8? I am unclear what the correct procedure is.

Kind regards,
Frances Crowe

(IP 20026749)

Post Hearing submission including written submission of oral case from Frances Crowe (IP 20026749) for Issue Specific Hearing ISH-8 on 25th August, 2021 on air pollution.

1. Particulates

Firstly I wish to endorse Laurence Moss's and Emma Bateman's comments at the hearing and subsequent written submissions, particularly in respect of the urgent need for monitoring of PM 2.5 particulates in this area - during construction but also now to establish baseline readings. Furthermore, it is crucial that PM2.5 particulates are monitored by road networks as road traffic is responsible for significant quantities of particulates of this size (see my WR REP2-275) - including from vehicle exhausts, road wear, brake wear and tyre dust. The latter three are likely to be adversely affected by increased numbers of electric vehicles as these are significantly heavier. I consider East Suffolk Council to be negligent in their inexplicable denial of the need for the monitoring of this pollutant. It is illogical to not monitor other locations on the basis that they concur with the applicant's view that PM2.5 particulates would not be significant on the construction site itself. This is especially concerning given that we know (evidence of Laurence Moss) that particulate readings by roads could be significant, and particularly of concern in the neighbourhood of schools and residential areas. As already notified, I am particularly concerned about pollution in the vicinity of Farlingaye High School (Woodbridge), Melton primary school and Yoxford primary school (I endorse John Sutherell's concerns regarding the latter). Given the length of the construction period, a child's whole childhood could be blighted by exposure to increased pollutants, particularly smaller particulate matter for which, as previously notified, there is no safe level of exposure. This exposure could lead to a lifetime of ill health and cognitive problems (evidence already submitted on this).

2. Tropospheric ozone

2.1 The problem

I want to bring the issue of tropospheric ozone pollution in this area to your attention again. I submitted a detailed written representation on this for Deadline 2 (REP2-275). Established air quality standards for ozone are currently among the most widely exceeded of any pollutant in the UK, with Suffolk performing exceptionally badly: Sibton exceeded UK government guidelines on 29 days in 2020, 28 days in 2019 and 37 days in 2018 (source:

<https://uk-air.defra.gov.uk>). This is approximately 3 x higher than the government target of a maximum of 10 days, as detailed in my WR (REP2-275). These exceedences are notable because they cause very widespread health problems here, affecting large numbers of people, as it is not limited to the vicinity of particular roads or sources. I have personal experience of this, having had to take our son when he was a toddler more than once to A&E in the middle of the night for emergency asthma treatment (being previously unaware that he had asthma) during what I later found out were ozone pollution episodes. My interest in air pollution started there. Whilst these episodes can be short-lived (usually a few days, though 10 days last August), they can cause extreme health difficulties, and perhaps death, for people with respiratory and other health problems.

The Eastern region also fails the ozone AOT40 long-term objective for protection of vegetation in the most recent UK compliance assessment, issued by DEFRA in September 2020 (https://uk-air.defra.gov.uk/library/annualreport/assets/documents/annualreport/air_pollution_uk_2019_Compliance_Assessment_Summary_Issue1.pdf).

I am really perturbed at the applicant's and East Suffolk Council's refusal to consider this pollutant seriously, which I believe is in contravention of paragraph 5.2.9 of EN-1, which states that where a project is likely to lead to a breach of national air quality limits (or presumably if it exacerbates an existing breach), the applicant should work with the relevant local authorities to secure appropriate mitigation measures (paragraph 5.2.9 of EN-1). In the event that a project will lead to noncompliance with a statutory limit the decision maker should refuse consent (paragraph 5.2.10).

It is worth highlighting too that the recent report 'Impacts of Net Zero pathways on future air quality in the UK', 2020, prepared for DEFRA, states (p.14) that the development of the new low-carbon infrastructure... has some potential to create transitory problems associated with air quality, and particularly so for very large construction projects (e.g. nuclear power, new roads and rail). Such projects may have only modest impacts in terms of overall national emissions of air pollution (e.g. measured in tonnes of emission), but may themselves be **significant perturbations to air quality concentrations in some localities**. **The effects of localised poor air quality even if only transitory, are real and**

substantial. Local air quality is a well-known issue within the construction sector, and a range of mitigations (e.g. emissions from off-road machinery, dust suppression etc) are already required. **However, given the potential scale of infrastructure development needed for 2050, additional control measures for large infrastructure projects would likely be beneficial.'** [my emphasises].

It cannot be said that the proposed development of Sizewell C will meet the highest environmental standards if this very important pollutant is ignored.

2.2 The applicant's response

The applicant's response (REP3-046) to the Planning inspectors' first written questions on this subject shows an absence of in-depth analysis and a total unwillingness to engage effectively with the issue. The UK government does not appear to agree with the applicant's claim that most ozone pollution precursors affecting this part of England emanate from France: the DEFRA Sept 2020 report on air pollution (DEFRA Air Pollution in the UK 2019) states: 'By tackling all sources of pollution [my emphasis], we will continue to reduce the formation of ozone across the whole of the UK.' Yes, ozone pollution is typically wide-ranging but *where*, specifically, is the applicant's evidence that locally produced ozone precursor pollutants (which would certainly be generated by the construction of Sizewell C) will have no adverse impact on ozone pollution in this region? The onus should surely be on the applicant to provide this detail, given this is an area with already significant exceedances for this pollutant because of the area's climate and rural nature. If the quantity of ozone precursor pollutants emitted by vehicles, shipping, diesel generation and construction increase then it is reasonable to believe this will inevitably lead to increases in ozone here as they react with sunlight in this sunny arid rural area.

Additionally, the formation of ozone is far from the constant process that the applicant suggests. As well as being strongly dependent on meteorological conditions, it is also influenced by season, day of the week and even the time of day (The Temporal Dependence of Ozone Precursor Emissions: Estimation and Application. Michael E. Jenkin, Timothy P. Murrells and Neil R. Passant, 2000). Understanding this is a necessary step to facilitating its mitigation.

It is furthermore very misleading for the applicant to imply that nitrous oxide emissions will serve to reduce ozone pollution in Suffolk as this is a highly localised roadside phenomenon (mentioned in my own submission REP2-275), specific to urban areas.

The applicant's refusal to consider this pollutant properly - just one throw-away paragraph and only in response to the inspectors' question - demonstrates a reckless disregard for the health of local people and habitats.

The response of the applicant's representatives to my comments at the hearing (from both Mark Broomfield and Richard Lowe) was, as before, lacking in meaningful detail. Where is the evidence for Mark Bloomfield's assertion that local ozone precursor emissions are not significant? Moreover, Richard Lowe's claim that ozone episodes can be predicted because of the flow of air from north Europe is misleading. It is the chemical reaction with sunlight in rural areas, especially East Anglia, that causes such episodes. It is therefore meteorological conditions (sun and settled periods of high pressure) that trigger the production of ozone, as outlined in my WR (REP2-275). It seems entirely likely that such conditions in the presence of locally produced ozone precursors would lead to the same chemical reaction. I am aware of no evidence that indicates chemical discrimination in favour of foreign-produced emissions.

Even if the applicant, apparently wilfully, refuses to examine the impact that the construction of Sizewell C would have on ozone levels, they should nevertheless have an effective and clearly communicated plan to mitigate the impact of their operations when an ozone pollution event is forecast, especially as these are already common, and are likely to become more frequent and extreme due to future climate change impacts. Moreover, it is known (as outlined in my written representation) that ozone pollution episodes are often accompanied by increased levels of particulate pollution, presenting a lethal cocktail of pollutants to vulnerable people. As mentioned, ozone pollution episodes can usually be predicted some days in advance and for the protection of local population - in particular children, the elderly and those spending most time outside - it is critical that an action plan - and trigger points - are established now, setting out how the applicant would respond; for example, by restricting number of vehicle/shipping movements, earth works, diesel generation etc.

2.3 East Suffolk Council's response

Worryingly, I have been unable to find any proper response to the Examiners' first written question from East Suffolk Council either (REP2-176). Whilst the council may not have any statutory duty relating to ozone pollution, one would expect that they would nevertheless be looking after their constituents' interests in their dealings with the applicant in respect of this pollutant, given its prevalence in this region. Yet East Suffolk Council confirmed to me in March 2019 that they would only deal with the pollutants for which they are responsible under the Local Air Quality Management Regime (see my VWR REP2-275). I have tried on numerous subsequent occasions to raise my concerns with East Suffolk Council, and with my elected representatives Ray Herring (East Suffolk) and Andrew Reid (Suffolk County Council), and to find someone at either council to talk to me about these issuesbut have encountered a complete failure to respond to my requests.

So... if the applicant will not take ozone pollution seriously and East Suffolk Council are not interested in holding the applicant to account (despite paragraph 5.2.9 in EN-1), who then is looking after local residents' interests on this? Nobody as far as I can see. Do children have to die here during a pollution incident for people to wake up and realise that this is very real issue for local residents and visitors?

It seems that both the applicant's and the council's review of air quality may be guilty of quantification bias - that is, giving more importance to things that can be more easily quantified (and mitigated for) - nitrous oxides and PM10 - over those which cannot, namely ozone and PM2.5. This is clearly unacceptable and should be challenged.

2.4 What is needed

I urge the planning inspectors to ensure that a properly researched and scientifically based assessment is urgently carried out of the cumulative impacts on ozone air pollution of Sizewell C construction and other major infrastructure projects in the area. And, additionally, to ensure that an effective and clear mitigation strategy is put in place - responding to the measures already outlined in my written representation (VWR REP2-275) - including halting of certain activities during pollution episodes.

Finally, I ask for reassurance that a proper 24-hour emergency medical facility will be set up east of the A12 to deal with medical emergencies throughout the construction works. When we had to take our son to A&E, we were fortunate to be able to get treatment really quickly and easily at Aldeburgh hospital. That local emergency facility is now closed. Although the applicant claims that journeys to A&E will only be a few seconds longer during construction works, I would certainly not gamble a child's life on this calculation. Should there be an extra wide load, construction of a new roundabout, an accident or just routine roadworks to repair the inevitable wear and tear on the A12 due to the volume of HGVs, the delays could be catastrophic.

I urge you, the examiners, to please take my concerns seriously.

3. Shipping

I was very surprised how little time was given to the discussion of air pollution at the hearing and, in particular, was dismayed that air pollution from shipping was not mentioned at any point or included in the agenda. I had not prepared to speak on this issue (although I did submit concerns previously as part of my written representation REP2-275) as I was sure this would be covered by other stakeholders at the hearing. I fear this is another case of East Suffolk Council not being interested in pollutants for which they are not legally accountable and therefore no-one, apparently, looking after the interests of local people. I therefore draw to your attention again my concerns and questions regarding shipping impacts on air quality, raised in my VWR REP2-275, pt 6. Shipping Impacts. I am concerned that I have not received any response from the applicant on these issues. I am not sure how the process should work and would welcome clarification - is the applicant at liberty to ignore questions from interested parties or should I have received a response?

4. Diesel generation

This was also not examined in any detail at the hearing. I remain very concerned on this issue (see my VWR REP2-275e) and also at the impact that the desalination plant, if accepted into the consultation, would have on air pollution, which presumably there will now not be the opportunity to discuss at an issue specific hearing.

Frances Crowe

1/9/21