

HAVANT BOROUGH COUNCIL

Town & Country Planning Act 1990

Consultation on Planning Application

**MEMORANDUM**

|                              |                                                                                                                                                                                              |                  |                            |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------|
| <b>From:</b>                 | <b>Environmental Health</b>                                                                                                                                                                  | <b>To:</b>       | <b>Development Control</b> |
| <b>Our Ref:</b>              | CONS/24/00218                                                                                                                                                                                | <b>Your Ref:</b> | APP/23/00127               |
| <b>EH Case Officer Extn:</b> | 6374                                                                                                                                                                                         | <b>Date:</b>     | 15 February 2024           |
| <b>DC Case Officer:</b>      | Ms K Taylor                                                                                                                                                                                  |                  |                            |
| <b>DC Case Officer Extn:</b> |                                                                                                                                                                                              |                  |                            |
| <b>Application Number:</b>   | APP/23/00127                                                                                                                                                                                 |                  |                            |
| <b>Site Address:</b>         | 4 Marples Way, Havant, PO9 1NX                                                                                                                                                               |                  |                            |
| <b>Proposed Development:</b> | Retrospective application for erection and operation of dust extraction system.<br><b>RECONSULTATION REQUEST</b> for revised plans and/or documents received <b>[Air Quality Assessment]</b> |                  |                            |

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**Observations / Comments:**

I have reviewed the response, refreshed my memory on the background to the queries raised, reviewed some of the technical documentation for the ADMS model, and undertaken some further research into some of the principles underlying the recent developments in PM<sub>2.5</sub> health standards in the interests of making sure that we are applying an appropriate degree of balance.

The agent's response / updated Alkali air quality assessment report (AQA) is relatively light-touch, it clarifies some of the specific queries raised, but has also not taken the opportunity to address some of the concerns raised previously – in particular the update does not address:-

- uncertainty in the reference emission – i.e. the magnitude of expected variability in emissions rates for either the reference feedstock (e.g. during a production process), or through a range of example (anticipated) feedstocks
- the expected composition of TPM emissions (in terms of particle size range) as a function of the filter efficiency & feedstock (e.g. as %<2.5µm, 2.5-10µm, etc.)
- the triviality of difference between modelling the source as a vertical stack, in comparison to modelling it as a directional discharge (as installed), through empirical or narrative qualification of a *prima facie* statement
- the interaction between the various available health-based guidelines, and their applicability to the results in a planning context.

There is some significant uncertainty in the reference emission. Some very rough calculations based upon the two available emissions test results return a range of estimates of primary emissions which are broadly equate (based upon appliance emission limits-) to between 1 & 29 newly-installed domestic wood burners. I think that this characterisation is useful to illustrate both the range of possible short-term impacts, and the degree of uncertainty which underlies the modelled reference emission.

The AQA refers to the screening benchmarks adopted under the EA H1 (permitting) guidance as a measure of triviality (or acceptability) of impacts. However, it is relevant that the H1 guidance is not directly applicable to planning, and would conclude triviality for a conceptual emission that would attract an alternative judgement under (outdated but still useful-) IAQM planning guidance which could fall anywhere between 'negligible' & 'substantial' depending upon the HI screening method considered and the standard we choose as a benchmark. I am also aware of the tension between the recent UK statutory air quality limit and the latest health advice from the WHO, and that planning policy is framed in terms of *both* Air Quality *and* Public Health (meaning that planning policy is not bound to permitting judgements, nor to statutory air quality thresholds – it can-, possibly must-, also consider the public health advice).

It is clear from the applicant's responses to queries raised that the conceptual model (CSM) underlying the ADMS 6 assessment does not particularly well represent the installation under application. However, it is also clear from the technical documentation to ADMS 6 that more accurately representing the installation would preclude the ability to account for potentially significant building effects (therefore also not well representing the distribution of emissions). It appears likely that without exploring some creative modelling approaches, both CSM options, when implemented within ADMS 6, would under-represent the contribution of the development to ambient exposures at the nearest receptor.

It is not clear whether a more appropriate ADMS module-, or an alternative modelling package might be capable of better representing the emission scenario – however it probably is more appropriate as a first step to consider whether seeking more representative modelling would be proportionate in the first place, or whether we might be able to reach a determination based upon the uncertain, but still useful, results that we have represented in the AQA.

In this respect, when considering the health impacts over the long-term, I would consider that the substantial conservatism of the operational assumptions in the implemented CSM are reasonably likely to substantially outweigh the modelling uncertainties. This is particularly true for the more distant (modelled) receptors, but probably also applies to nearby receptors that are present down-prevailing-wind, and on the (prevailing-) leeward side of the building.

For these reasons, given the relatively small scale of the estimated process contributions, I'm not particularly concerned about the long-term average exposures- despite possible impact judgements (based upon the modelled contribution, and using the 2017 IAQM guidance-) of up to 'moderate' (dependent on benchmarking).

This notwithstanding, I am aware that of the WHO advice is that non-trivial-, and non-threshold-, health-impacts may arise where 24hr average PM<sub>2.5</sub> exposures of 15 µg/m<sup>3</sup> or more are experienced on more than (just-) 4 days per annum. Bearing in mind that the annual average ambient background level (which excludes this development) is expected to be >10 µg/m<sup>3</sup>, this harm is the principal driver for the policy concern – i.e. the risk of a meaningful accumulation of short-term harms at the closest receptors, recognising that these are also the receptors for which the modelled impact (under the CSM implemented in ADMS) is least-likely to be representative.

This has led me to investigate the context of the latest regulatory standards (SI 96/2023), which set a long term annual average objective & population exposure reduction target for PM<sub>2.5</sub>, notably omitting a short term (24hr average) exposure objective, in contrast to existing limits for PM<sub>10</sub>.

Considering SI 96/2023 against the WHO guidelines, the question is how to balance the differences under the applicable planning policy (summarised below);

- DM10 *'Development that may cause pollution of ...air will only be permitted where... 1. The health ..of... nearby occupiers and residents is not put at risk.'* and;

- the principles of NPPF 2023 para. 180 e) [decisions should] '*prevent[ing]... existing development from ...being put at unacceptable risk from, or being adversely affected by, unacceptable levels of ...air, ...pollution*')

Recent advice from COMEAP (committee on the medical effects of air pollutants) and AQG (air quality expert group) is helpful in answering this question. In short, the COMEAP assessment acknowledges the likelihood of harm arising from cumulative short-term exposures, but highlights uncertainty in the magnitude of these associations and emphasises the stronger associations between adverse health outcomes and long-term average exposure.

In planning terms, given the uncertainties associated with the representativeness of modelling for short-term exposures (in the AQA), especially for the closest receptors; we must strike an appropriate balance which acknowledges the new source of particulate pollution and it's non-threshold health effects.

It is clear from the epidemiological discussion & UK regulatory framework that it would be disproportionate to object to this development outright on Air Quality grounds. There might however be policy support for a conditional restriction on operating hours to limit exposures. Options might include;

- Limiting operational period within in any 24 hr period (to limit elevated daily mean concentrations arising on any given day, whilst enabling an operational flexibility as to the timing of production runs within any given day)
- Limiting annual operational hours only (to limit increases to annual exposures, and to limit the number of daily mean exposures >15 µg/m<sup>3</sup>; offering greater operational flexibility at the cost of reduced protection for local residents-)
- Hybrid limits – e.g. both daily & total annual operational hours, with a number of allowable exceedance days (e.g., <12hrs/day, <4380 hrs/annum, <10 days where daily operation exceed 12hrs; etc.)

Alternatively, the LPA could take the view that the anticipated harms are- (with reference to the applicable epidemiological advice and structure of the UK statutory limits-) 'acceptable harms', for which (under the applicable planning policy-) the small group of the closest residential receptors are not entitled to protection. There is of course precedent for this approach in similar contexts within the permitted development rules and building regulations, and it is notable that the NPPF para. 180 e) includes the term 'unacceptable-' (risk/levels).

I see this as a policy decision which would necessarily fall to the development management service. To my reading, based upon the evidence submitted in support of this application; both alternative approaches have some policy support (i.e. a conditional restriction to protect nearby residents, or to determine the application unconditionally on the basis of the balance of harms vs. benefits). Arguably the wording of the existing local policy is stronger than the national, but it is probably appropriate to read the DM10 reference to 'risk' as being aligned with the concept of 'unacceptable risk'.

It is probably also worth highlighting that monitoring and enforcement difficulties associated with a restriction might render any conditional restriction largely symbolic, and this might weigh on the approach chosen. Similarly, the content of the 2023 Air Quality Strategy (and it's implicit principles-) are probably relevant, insofar as it's emphasis on control of large scale emissions, appliance emission limits, and enforcement of *existing* air quality controls – notably not advocating for reduction of emissions from activities or processes that fall outside of these controls.

Whilst I have some misgivings about over-reliance upon the (accuracy & representativeness of the-) modelling output presented in the AQA, and the uncertainty in terms of the reference

emission level; I am not sufficiently convinced of the likely magnitude of harm as to feel comfortable to make a specific recommendation purely on health grounds. Some consideration of the wider benefits of the development is appropriate.

I am happy to discuss further if additional clarifications are required, &/or to assist in defining/drafting a conditional restriction if the development management service feels that a restricted approval is the appropriate response, given the above narrative.

**Mr Jonathan Driver**  
Environmental Control Officer