

HAVANT BOROUGH COUNCIL

Town & Country Planning Act 1990

Consultation on Planning Application

MEMORANDUM

From:	Environmental Health	To:	Development Control
Our Ref:	CONS/19/00456	Your Ref:	APP/18/00244
EH Case Officer Extn:	44 6677	Date:	04 April 2019
DC Case Officer:	Rachel Ballam		
DC Case Officer Extn:	6143		
Application Number:	APP/18/00244		
Site Address:	Colt International Ltd, New Lane, Havant, PO9 2LY		
Proposed Development:	Outline application with all matters reserved. Mixed use development comprising up to 100 new homes, including up to 40% affordable, 2860 sqm of employment floorspace and improved access onto New Lane and Martin Road. On-site parking for residential and employment uses. Landscaping to be provided, including acoustic bund to rear of employment units and naturalisation of existing watercourse (full details to be submitted at a later stage) (Approved 30.01.19) Request to Discharge Conditions 4 & 18 and partially Discharge Condition 8 (20.02.2019). A request has been made to partially discharge the following condition(s) on the above application: Condition 8, Parts 1 & 2 [Contamination Preliminary Risk Assessment & Site Investigation]		

Observations / Comments:

I note the Mark Moss has already made recommendations with respect to the CEMP (c.18). Comments here will therefore focus on c.8, contamination. It is understood that the applicant is seeking discharge of parts 1 & 2 only. The information submitted to date does partially satisfy the requirements of part 3 (specifically 'results of site investigation(s)'), but I note that the applicant wishes to defer consideration of the implication of ground gas results, and design of the remedial scheme to a later date (assumed to be a reserved matters stage, at which point the specific site layout will be confirmed)

I have reviewed the Campbell Reith Consulting Engineers Report Ref 12663 (updated GQRA and Outline Remediation Strategy, and can broadly agree it's interpretation and conclusions.

The results can be broadly summarised as follows:

- Elevated concentrations of a range of contaminants were identified at 'maximum recorded concentrations' exceeding generic assessment criteria (GAC); including Beryllium, Lead, Petroleum Hydrocarbons (C12-C40), and several PAH congeners (8 of 16)
- With the exception of Lead, all results exceeding GAC were identified as statistical outliers. The report finds no conceptual reason to zone the site, especially as the sampling strategy was principally non-targeted (with respect to expected sources), so in principle, each could

represent a single representative of a materially different sample population - a 'hot spot'.

- After removal of outliers, statistical consideration has identified concentrations of several contaminants which are likely to represent a site-wide risk (i.e. the general character of soils such that sporadic contamination is so common, and of such concentration, that it is not possible to consider any spatial area within the applicable vertical stratum as 'clean' or 'unimpacted'). This applies to Lead, Benzo(b)fluoranthene, Benzo(a)Pyrene, and Dibenzo(ah)anthracene.
- Principle contaminants of concern are considered to be asbestos (in soils), PAH species (posing risks to potable supplies, local controlled waters and human health), and Lead.
- Petroleum hydrocarbons, Phenols, and VOC are generally absent from soils, save for localised contamination by weathered fuels. PID results (a 'total volatile organics' screen) identify marginally elevated concentrations across the site (not discussed in detail).
- Ground gas is tentatively dismissed on the strength of the gas screening value, but the report does note that the elevated maximum value concentrations of CH₄ are inconsistent with characteristic situation 1 and may need to be considered in detail.
- Visual and olfactory evidence of contamination in the Southeastern corner of the site is considered to pose a theoretical risk to the Lavant, albeit that no impact has been demonstrated in previous surface water sampling.

The conclusions of the report can be summarised as follows:

- There is reasonable evidence to support an assumption of hydraulic continuity between local groundwater and the Lavant, and that contamination is likely to be present within the range of groundwater levels. Local source removal work is necessary in the vicinity of TP202 / BH5 to mitigate this risk. Scope of works should be deferred to a remedial method statement, to be submitted under separate cover. In-situ remediation or stabilisation will be given consideration (as sustainable alternatives to removal)
- Gas concentrations should be considered in more detail when the site gains approval for a detailed layout & services plan, and when additional groundwater levels monitoring data become available. Protection measures may be necessary. The scope of works should be deferred to a remedial method statement, to be submitted under separate cover. This may be precautionary, or rely upon further analysis.
- Potable supplies are likely to require protection, due to leachable concentrations of PAH within shallow made ground and topsoil, and the possibility of sporadic hydrocarbons being present.
- Future residents should be protected from exposure to soils by means of a clean cover system. A generic soil system is proposed, with imported soils criteria and technical details to be deferred to a remedial method statement, to be submitted under separate cover.

Comments - Ground Gas

The ground gas monitoring results are interesting, with the factual report presented in the appendix including determinands not discussed within the main text. Carbon Monoxide concentrations are recorded at up to 28ppm, Hydrogen Sulphide concentrations at upto 8ppm, and minimum recorded Oxygen is <0.1%.

Methane concentration was recorded at a peak of 21.3%, in excess of it's threshold of combustibility. It is unusual for Methane concentrations to be so elevated in the absence of an anthropogenic waste deposit, and at a site without peaty or organic alluvial soils &/or infilled watercourses.

The GSV result (and it's corresponding conclusion) is heavily reliant upon low positive flow,

there would be significant concern in the event that worst case CH₄ & worst case recorded flow (at the site) were coincident. Gas monitoring is always just a 'snapshot' and it is difficult to ascertain that the 'worst case' scenario (e.g. soil temperature, meteorological conditions, and changes in groundwater levels) have been captured by the monitoring undertaken.

The report does not specifically address the conceptual site model in respect of the expected sources and distribution of gas results, or the drivers to flows. Flow rates are shown to fluctuate quite widely, presumably as a result of local groundwater or soil conditions. As an example, on 30/05/18, max recorded flow was +7.6 l/hr, minimum -8.9 l/hr (different boreholes), under broadly equivalent atmospheric-pressure conditions.

I would assume that the authors would anticipate a 'high concentration/low flow' (therefore low generation pressure) model being applicable to the site, but do not consider that this has been robustly demonstrated to be plausible.

I agree that the gas results should be given additional consideration, perhaps following collection of additional groundwater levels data (a possible flow driver). Additional rounds of monitoring, or deployment of a continuous gas analyser might also be appropriate to lend additional confidence to the conclusions drawn.

The PID results are also interesting given the general lack of light fraction fuels (or widely elevated fuel-range hydrocarbons), the general lack of quantifiable VOC concentrations, and the generally low volatility of elevated PAH congeners present. In the most part, the PID response is low (<1ppm), but at least one result was 6ppm, climbing without stabilising despite a marginal negative flow rate. In the absence of any compelling alternative explanation, this is considered to potentially be indicative of local biological degradation of organic contaminants. This is perhaps most relevant to reinforce the need for diligence in observing the proposed watching brief.

Comments - Conclusions

The conclusions are broadly agreed to be appropriate, and I accept the reasons for deferral of a detailed specification of remedial measures - not least as it appears that data collection is still underway.

Commencement of further site clearance work could prejudice the collection of additional data from existing wells, which could in turn prejudice a more detailed consideration of gas risk (by preventing re-sampling). I anticipate the remediation method statement to include, and account for some further consideration of gas risks (conceptually based upon existing information, & ideally with additional monitoring data)

I can support discharge of parts 1 & 2 to Condition 8, as applied for. I have no problem with the applicant progressing the 'other operations' mentioned in informative (23), though it was my understanding that most of this activity had already occurred. Additional site clearance work (e.g. ground level slabs) can proceed without prejudicing the existing wells provided it is carefully done - it is the applicants responsibility to satisfy themselves that the progression of such works will not harm their ability to make an acceptable submission under part 3, with specific reference to the deferred consideration.

This risk is only relevant to the soil gas issue, proposed source removal work and clean cover system design / implementation will be unaffected by works within scope of the 'other operations' (informative 23).

Mr. Jonathan Driver
Environmental Control Officer