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| <b>Consultation Response from: KC Environmental Health (Pollution &amp; Noise Control)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                                               |
| <b>2021/92402 - 1013, Manchester Road, Linthwaite, Huddersfield, HD7 5LS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                     |                                               |
| <b>Discharge of conditions 3 (Materials), 7 (Phase 1 Desk Study) and 8 (Phase II Intrusive Site Investigation Report) on previous permission 2021/90085 for the erection of 2 semi-detached dwellings</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                     |                                               |
| <b>Date Responded:</b><br><b>22<sup>nd</sup> June 2021</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Responding Officer:</b><br><b>Natalie Heaney</b> | <b>Responding Ref:</b><br><b>WK/202119710</b> |
| <p>Condition 3 is outside the remit of Environmental Health.</p> <p><b>Condition 7 – Phase I Desk Study</b><br/>To discharge Condition 7, a Phase 1 Environmental Desk Study by Rogers Geotechnical Services Ltd dated March 2021(ref: C1575/21/E/2457).</p> <p>The Phase I report provides an appraisal of the site history and previous surrounding land uses, since the 1800s and a comprehensive assessment of the environmental setting. From this, it is evident that there have been potentially contaminative uses on the site (and/or adjoining land) which could impact the development and/or the environment. These include, but are not limited to, evidence of burning as identified during the site walkover and nearby landfill. The report concludes by recommending a Phase II intrusive investigation, including targeted sampling near the existing garden buildings and the area of burnt material identified in the walkover.</p> <p>Overall, we agree with the Phase I report and consider the report satisfactory. We recommend that Condition 7 is discharged.</p> <p><b>Condition 8 - Phase II Intrusive Site Investigation Report</b><br/>To discharge Condition 8, a Report on a Ground Investigation by GeoEnviro Solutions Ltd dated 9<sup>th</sup> June 2021(ref: GES 1399-21) has been provided. The information received includes geo-technical information, which is outside the remit of Environmental Health, this response therefore only relates to the land contamination aspects of the report.</p> <p>The Phase II report details the exploratory investigation at the site undertaken in April 2021. The investigation confirmed ground conditions of made ground up to 1.40 metres below ground level underlain by clay and mudstone. Five samples were taken for analysis and no samples exceeded the generic assessment criteria selected for any contaminants including asbestos.</p> <p>Gas monitoring was also undertaken over 4 visits (13<sup>th</sup> May 2021, 19<sup>th</sup> May 2021, 28<sup>th</sup> May 2021 and 3<sup>rd</sup> June 2021). On all monitoring days, the pressure was reported as steady and ranged between 985mB and 1006 mB. The maximum carbon dioxide concentration reported was 2.1% v/v, and the minimum oxygen concentration reported was 15.4%. The flow peaked at 0.3 l/h and no methane was detected. No groundwater was identified. The calculated GSV reflective of CS1 following CIRIA C665. As such, the report considered gas protection measures are not necessary at the development and the overall conclusion of the report is that no further action is required.</p> |                                                     |                                               |

Firstly, in several places within the report, there are many missing letters, words and/or mistakes. This appears to be throughout the report but mainly affects the tables. We note that the provided document is indicated as a final document and that it has been prepared and approved by two separate individuals. Despite this, we consider the report to be illegible in places and for that reason, request a revised report.

Several other areas of the report require further clarification. For simplicity, these are addressed point-by-point below:

1. The Phase I report used to inform the intrusive investigation is the Rogers Geotechnical Services report (ref: C1575/21/E/2457) discussed in the previous section of this response. Within that report, visual evidence of contamination was reported, namely evidence of burnt material/bonfires. As such it was recommended that targeted sampling took place in the area.

In the Phase II report herein, no reference is made to this visual evidence of contamination. On the contrary, in Section 8 of the report, it states that no visual and/or olfactory evidence of potential contamination was noted within any soils encountered.

Therefore, it is unclear whether a targeted approach sampling strategy was employed as recommended in the Phase I report. This appears to be inconsistent with the Phase I report. So, further clarification is required about the site walkover and the sampling strategy undertaken to ensure all potential sources of contamination have been tested during the intrusive investigation.

2. Any ground gas monitoring undertaken must be in line with CIRIA C665 guidance. If no gas protection is recommended, this must be supported by a detailed and robust gas monitoring programme that confirms, to a high degree of confidence, that no risk of ground gas exposure to site users exists. Many of the points that we have identified as needing further information relate to the ground gas monitoring. As such, we cannot accept the ground gas data and conclusions until further information is received. In particular, the points listed require clarification:
  - a) The minimum oxygen concentration reported are inconsistent, ranging from 14.5% v/v (Appendix 5) to 15.4% v/v (Page 18). As such further clarification is required that confirms the minimum oxygen concentrations observed during the ground gas monitoring period described.
  - b) The values of oxygen reported indicate oxygen depletion. However, this is not considered in the Phase II report. Further information is required concerning the oxygen concentrations observed to confirm the validity of the conclusions reached.
  - c) On Page 17 of the report a maximum flow of 0.3 l/hr is reported. Later, on Page 18 this is reported as 0.4 l/hr. As such, we consider the reporting inconsistent. As this value is used to calculate the gas screening value following CIRIA C665, we cannot accept the ground gas data provided until further clarification is provided to confirm the flow rate observed.
  - d) The ground gas monitoring has been undertaken on four occasions (13<sup>th</sup> May 2021,

19<sup>th</sup> May 2021, 28<sup>th</sup> May 2021 and 3<sup>rd</sup> June 2021). No measurements were taken during falling pressure and the monitoring dates do not consider seasonality or a broad range of meteorological conditions. As such this does not appear to be in line with CIRIA C665 guidance.

CIRIA C665 guidance states that worst-case scenarios are likely to occur during falling atmospheric pressures and rainfall, frosts and dry weather. The same guidance also suggests an idealised frequency and period of monitoring for high sensitivity developments (as here) is 6 visits over 3 months. We consider that the provided information has failed to provide a gas monitoring programme that confidently established the ground gas regime on-site. Justification is required for the period and frequency of gas monitoring employed.

Overall, we consider the Phase II report to be unsatisfactory. Therefore, we recommend Condition 8 remains until further notice. A revised report must be provided that addresses the points raised within this response.

### **Recommendations**

For Condition 7, the Phase I report provided is considered satisfactory and we recommend the discharge of Condition 7.

For Condition 8, the Phase II report provided is considered unsatisfactory and we recommend that Condition 8 remains until further notice.