

Consultation Response from: KC Environmental Health (Pollution & Noise Control)
2019/93903 - 122A Laund Road, Salendine Nook, Huddersfield, HD3 3TY
Erection of one dwelling and associated works
Date Responded:
14 Feb 2020
Responding Officer:
Richard Hume
Responding Ref:
WK/2004024
Contaminated Land

In our previous consultation response dated 13 Feb 2020 we commented on the submitted contaminated land information in particular that relating to ground gas monitoring at the site. We disagreed that the ground gas situation at the site could be considered to be characteristic situation 1 (CS1). This was because the monitoring data in Appendix A Gas Monitoring Data Part 2, which was not discussed in the submitted report. This data showed the carbon dioxide concentrations at monitoring well WS302 adjacent to the building as 8.1% and 11.5%. We therefore recommended that the application should not be determined in the absence of clear evidence that either the site is not at risk from ground gas or there are detailed proposals for the provision of gas protection measures for the existing building.

A response from Adam Czarnecki at Earth Environmental dated 13 Feb 2020 has now been received. He advises that there was an error in the previously submitted information and resubmitted the report with corrections. The revised Appendix A Gas Monitoring Data Part 2 renumbers the monitoring boreholes. What was previously labelled as WS302 is changed to WS402 and what was previously labelled WS201 is changed to WS301. The new WS301 shows elevated levels of carbon dioxide at 6.2% but Mr Czarnecki concludes that because of the low flow rates it can be characterised as CS1.

This assumption of the site being classified as CS1 conflicts with guidance in British Standard BS 8485 2015+A1-2019 *Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings* and CIRIA C665 *Assessing Risks Posed by Hazardous Ground Gases to Buildings* which both recommend a classification of CS2 where the carbon dioxide concentration exceeds 5%.

The submitted report provides details of the water levels in WS302 where the continuous monitoring was carried out. It is noted from the report that the monitoring well response zone was between 1.0 and 2.0m bgl and that throughout the monitoring period the water level was between 0.78 and 1.34m (from Table 1 and the raw data in appendix 1) or 0.78 and 1.18 (from Figure 2). The raw data advises that the average water level was 1.05m. It appears from this data that at least 66% the response zone was submerged under water for the whole monitoring period and completely submerged for a significant proportion of the monitoring period. The report fails to make comment on this or consider the significance of this. Also, the atmospheric pressure and water levels for the one day monitoring at WS301 are not provided and not considered in the report. In addition, the previous and latest ground gas monitoring results both show that there are elevated levels of carbon dioxide within around 40m of the building that the application relates to, the significance of this also needs to be considered.

For us to be able to accept that the application site can be classed as CS1 and therefore that

the existing building does not require gas protection measures we need to be provided with clear unambiguous evidence to demonstrate with a high level of confidence how such a classification can be made. The submitted information fails to do this therefore our previous recommendations remain unchanged.