

07 December 2020

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Ref: EPG/8615/2020/amended development

Dear Andy

New planning application – impact on required gas protection measures

Further to our telephone conversations and exchanged emails, I have reviewed the documents prepared for you by EPG during 2018 as follows:

- *Detailed quantitative gas risk assessment.* Environmental Protection Group, January 2018, reference EPG/8615/2018/DQRA/V1; and
- *Remediation method statement.* Environmental Protection Group, June 2018, reference EPG/8615/2018/RMS/V1.

These related to planning permission reference F/17/80640, a hybrid commercial and low-rise/high-rise residential development covering a large site comprising northern and southern areas connected by a dog-leg. It is my understanding that the proposed new application relates only to the southern area and comprises a proposed change from office buildings to high-rise residential buildings.

As you are aware, our previous report/s identified potential historic sources of gas, however comprehensive site investigation demonstrated that no bulk gas generation was occurring on or in the vicinity of the site, with the exception of the engineered landfill to the south of the site boundary, where gas management and collection is practiced. We concluded that basic gas protection measures should be installed into both commercial and residential buildings. Details were presented within our remediation method statement.

From our recent discussions and the information you have provided, it is our understanding that the proposed residential high-rise development is based on exactly the same layout as the approved commercial development, as detailed in drawing 20-1098-SK03 an extract of which is below.



You have advised that the piles and ring beams to Buildings B and C (as denoted in the drawing above) have been installed, and that the drainage and surface water attenuation tanks beneath the car park area in the northern part of the site are in place. The lower area (Buildings D and E) has been reduced to the formation levels determined for the previous application, and covered with crushed concrete, as can be seen in the aerial photographs below.



Based on multiple lines of evidence, our detailed quantitative gas risk assessment report concluded that the site should be considered a Characteristic Situation 2 classification, with a requirement for basic gas protection measures. Based on my review of our previous reports, I can confirm that the gas protection measures detailed for the original application are valid for the current proposed development. The required gas protection measures are specified as follows:

For commercial or flatted development – Type B building in accordance with BS8485:2015+A1:2019 (3.5 points required):

- *Installation of a gas resistant membrane. The membrane to be specified in accordance with BS8485:2015 and installed/verified in accordance with CIRIA Report C735, Good Practice on the Testing and Verification of Protection Systems for Buildings Against Hazardous Ground Gases. Furthermore, it must be robust enough to withstand construction and should be a minimum of 0.6mm thick in between the scrim (e.g. Juta GP1) **BS8485:2015, Table 7 – 2 points;** and*
- *Construction of an open void (minimum 225mm deep) beneath all residential properties, passively vented via air bricks constructed on at least two opposite walls, providing an actual opening of at least 1500mm² for each metre run of wall. All beams and sleeper walls beneath the properties to be constructed so as to allow cross ventilation. **BS8485:2015, Table 6 – 2.5 points.***

Details of the proposed gas protection measures to be installed in Buildings A to D inclusive were presented in the remediation method statement and approved under the previous planning application. I would recommend that you re-submit EPG's previous reports (detailed above), together with this letter as part of the supporting information with your application.

Be aware that within the remediation method statement the appropriately qualified persons were identified for both installation and verification of installation of the gas membrane – if you are intending to use alternative appropriately qualified persons for these roles, this should be made clear within a covering letter, and details of the intended persons (together with their qualifications) be provided.

I hope this is sufficient for your current purposes. If you have any queries, please don't hesitate to contact me.

Yours faithfully

Sarah Haines
Principal Engineer

For and on behalf of
The Environmental Protection Group Ltd