JohnP Holmes

From: Natalie Heaney
Sent: 17 August 2023 10:28
To: JohnP Holmes
Cc: Dan Heneghan
Subject: RE: [ACTION] 2022/44/93001/W - Hagg Farm

Hi John,

We will need consulting on this please. I'll try get to it ASAP once it comes through.

Kind regards

Natalie Heaney
Senior Technical Officer
Pollution & Noise Control
Kirklees Council Environmental Health
PO Box 1720

Phone number 01484 221000
Internal extension 72596
e-mail natalie.heaney@kirklees.gov.uk

Kirklees Night Time Noise Service Summer 2023 runs every Friday and Saturday from 05 May to 30 September. The service is available to call from 21.00 to 03.00, if you are suffering noise problems in your home from commercial or domestic properties. The telephone number for this service (only during these hours/days) is 01484 414828. Officers will visit to gain evidence and will try to deal (where possible) with the noise at the time.

From: Dan Heneghan <Dan@heneghanarchitecture.com>
Sent: Thursday, August 17, 2023 9:25 AM
To: Natalie Heaney <Natalie.Heaney@kirklees.gov.uk>
Cc: JohnP Holmes <JohnP.Holmes@kirklees.gov.uk>
Subject: FW: [ACTION] 2022/44/93001/W - Hagg Farm

Natalie,

Please see responses below.

Kind Regards,

Dan

Dan Heneghan BSc.(Hons), M.C.I.A.T.
Director

Phone 07795975869
dan@heneghanarchitecture.com
www.heneghanarchitecture.com

From: RB Geotechnical <rbgeotechnical@gmail.com>
Sent: Thursday, August 17, 2023 9:23 AM
To: Dan Heneghan <Dan@heneghanarchitecture.com>
Subject: Fwd: [ACTION] 2022/44/93001/W - Hagg Farm

Hi Dan,

Please see comments below from Ben (gas engineer). Could you forward this on to Natalie. Apologies I can't as I don't have my laptop, hence why I'm emailing via iPhone.

Ben covers all the points with his comments in red.

Note also that if a formal verification plan is required then he can carry this out at a cost of £450+VAT.

Kind regards

Ross

Sent from my iPhone

Begin forwarded message:

> **From:** geoenginseer@gmail.com
> **Date:** 17 August 2023 at 08:41:25 BST
> **To:** Ross Blake <rbgeotechnical@gmail.com>
> **Subject: RE: [ACTION] 2022/44/93001/W - Hagg Farm**
>
> Comments below!
>
> ---
>
> **From:** Ross Blake <rbgeotechnical@gmail.com>
> **Sent:** Tuesday, August 15, 2023 4:47 PM
> **To:** geoenginseer@gmail.com
> **Subject:** FW: [ACTION] 2022/44/93001/W - Hagg Farm
>
> Hi Ben,
>
> Please see email chain. And main points they want answering:

-What combination of gas protection will be selected to achieve the desired score? **NB**: *These should be site-specific and an understanding of the guidance must be demonstrated.*

CIRIA 795:2020 (C795) details the requirements for retrospectively fitting gas membranes to existing buildings Section 6 covers the practicalities of assessment and is used here (as is knowledge of the whole document) to inform a professional judgement of the identified worst case scenario risks likely to affect the proposed residential building conversion. The British Standard 8485:2015:+A1:2019 (BS) is the guidance for new builds and elements have been extracted to inform this professional judgement. This is not a new build at Hagg Farm. The conversion of the former residential property that was then used as a barn, back to use as a residential property is considered in this writing. The barn was likely used for housing domesticated farm animals, machinery parts and farm related chemicals. The gas sampling events to characterise the potential risk to this property from these uses, and background naturally occurring methane and carbon dioxide proved that there is a significant possibility of significant harm from gas present at this location. Although this risk has been judged by calculation of the Gas Screening Value (GSV) as moderate risk for carbon dioxide it has been reduced to a Characteristic Situation of 2 by professional judgement and the below 70l/h flow rate. The following factors were considered to protect the proposed property from those gasses. The British Standard 8485:2015+A1:2019 (BS) requires consideration of the driving force to allow gas to enter a building and the options available to reduce this risk to as low as practicable, a points systemis used to determine effective protection and CS type A property required 3.5 minimum points. In the BS and C795 the practical elements available that could apply to this development are: a slab, reinforced slab, waterproofed slab, pressure relief pathway, passive ventilation, positive pressure ventilation, gas barrier. Given the medium risk levels of gasses and low flow rate found, plus small foot print of the building, Private ownership (Type A Building-table 3 of the BS) of the building, location on a windy hillside (high likely hood of good to very good passive ventilation driver, especially at low pressure event – during which gas is most likely to come out of the ground), practicality of a stable build in an old structure (not removing too much internal floor material) to form a slab with minimal penetrations, with the need for some form or pressure relief for the relatively high levels of carbon dioxide experienced in the monitoring boreholes (but not measured in the building) the following is a practical, measured and appropriate solution to this situation. A gravel pad is to be formed inside the building with cuspated ventilation mat installed in the top 40mm forming a free flow pathway to the outside, facilitate with drilling through the solid walls to allow for access to the atmosphere. The finish of this to be determined. This allows for a 'good' rated pressure relief layer: (0.5 points in the BS). A reinforced monolithic slab (greater than 75mm with reinforcement) above this with minimal penetrations then provides 1.5 points, given the size of the development and limited opportunity for shrinkage. Installation of a suitable gas barrier tied to the solid walls internally with tanking primer and self-adhesive membrane, and loose laid gas barrier across the floor areas, which shall be verified independently would provide 2.0 points giving a total score of 4 points in the BS system. It is further required that an injected damp proof course is added to prevent damage by water rising, potentially causing damage or gas passing through the sandstone structure and entering the building.

-Detailed information concerning the areas where retrospective installation is necessary.

Across the whole floor area of the development, and through the walls as recommended above.

-Evidence how the installation will be verified in accordance with best practice guidance

verification will be inline with Ciria:735:2014.

Ross Blake
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RB Geotechnical
Geotechnical & Geo-Environmental Specialists

http://www.rbgeotechnical.co.uk

LinkedIn: www.linkedin.com/in/ross-blake-8bba2836

From: Natalie Heaney <Natalie.Heaney@kirklees.gov.uk>
Sent: Tuesday, August 15, 2023 10:53 AM
To: Dan Heneghan <Dan@heneghanarchitecture.com>
Cc: JohnP Holmes <JohnP.Holmes@kirklees.gov.uk>
Subject: [ACTION] 2022/44/93001/W - Hagg Farm

Good morning Dan,

I am currently working on the above application and have reviewed the Remediation Strategy - Issue 002 authored by RB Geotechnical, dated July 2023 (ref: 2022/93001).

To progress this, we need much more detailed information concerning the gas protection. In particular:

-What combination of gas protection will be selected to achieve the desired score? **NB**: *These should be site-specific and an understanding of the guidance must be demonstrated.*
-Detailed information concerning the areas where retrospective installation is necessary.
-Evidence how the installation will be verified in accordance with best practice guidance

In the meantime I will be issuing formal comments highlighting these points and providing our recommendations to John.

Any future submission should aim to address the above. This could be done with a few paragraphs to each point (supplementary information by email) rather than a completely revised report should you find that easier.

Thank you

Kind regards

Natalie Heaney
Senior Technical Officer
Pollution & Noise Control
Kirklees Council Environmental Health
PO Box 1720

Phone number 01484 221000
Internal extension 72596
e-mail natalie.heaney@kirklees.gov.uk

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