

From: Tara Johnston <tara.johnston@lichfields.uk>
Sent: 29 November 2023 17:01
To: Carlisle, Heather <Heather.Carlisle@herefordshire.gov.uk>
Cc: Pauline Roberts <pauline.roberts@lichfields.uk>
Subject: FW: Three Elms NEQ - Air Quality [LICH-DMS.FID217697]

Hi Heather,

As mentioned previously, our consultant has been liaising with the EHO regarding the air quality comments.

Please see the email chain below with our responses to the queries and information that was provided.

Could you please liaise with the EHO to confirm if the responses provided are acceptable and would allow an updated consultation response to be issued?

Many thanks,

Tara

Tara Johnston
Senior Planner
BSc (Hons) MSc MRTPI
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From: Hargraves, Philippa <Philippa.Hargraves@herefordshire.gov.uk>
Sent: Tuesday, November 28, 2023 10:32 AM
To: Andrew Fowler <andrew.fowler@watermangroup.com>
Subject: RE: Three Elms NEQ - Air Quality

Hi Andrew,

Sorry I have been away from the office.

I have spoken with the planning officer and she has confirmed that she would like all information provided on the application go through the agent and then submitted to the planning office.

So I am unable to respond to your request directly.

Kind regards

Philippa

From: Andrew Fowler <andrew.fowler@watermangroup.com>
Sent: 23 November 2023 17:07
To: Hargraves, Philippa <Philippa.Hargraves@herefordshire.gov.uk>
Subject: {Disarmed} RE: Three Elms NEQ - Air Quality

Hi Philippa,

Further to our email correspondence below, please may you request confirm whether the below has addressed your air quality comments?

Kind Regards,

Andy

Andrew Fowler
BSc (Hons) CEnv
Associate Director – Air Quality
Waterman Infrastructure & Environment Ltd

Advance notice of Annual Leave: 1st December, 19th-20th December, 22nd December – 1st January, 15th January



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From: Andrew Fowler
Sent: Monday, November 13, 2023 5:42 PM
To: 'Hargraves, Philippa' <Philippa.Hargraves@herefordshire.gov.uk>
Subject: RE: Three Elms NEQ - Air Quality

Hi Philippa,

The technical specification for the Log Yards boiler states the fuels as Wood - Chips – Peat. It is therefore unlikely whether wood or pellets would effect the emission rates.

With regard PM₁₀ emissions there is a lot less available information.

I have found the Sommerauer Eco Premium 250KW boiler (a similar size) that has measured PM₁₀ emissions of 7.7g/GJ net heat output, which is significantly lower than 30 g/GJ.

[Sommerauer ECO Premium 199 to 250kW - Rainbow Heat and Power](#)

[MailScanner has detected a possible fraud attempt from "www.rainbowheatandpower.co.uk" claiming to be SL 199 - 250 T6R.pdf \(rainbowheatandpower.co.uk\)](#)

Based on the annual mean background PM₁₀ concentration from Receptor 3 (1 Crest Court) of the Air Quality ES Chapter – estimated 2019 concentration (inclusive of roadside contribution) 13.5µg/m³ it is also not likely the annual mean objective for PMO₁₀ will be exceeded.

Kind Regards,

Andy

Andrew Fowler
BSc (Hons) CEnv
Associate Director – Air Quality
Waterman Infrastructure & Environment Ltd

Advance notice of Annual Leave: 1st December



From: Hargraves, Philippa <Philippa.Hargraves@herefordshire.gov.uk>
Sent: Monday, November 13, 2023 3:59 PM
To: Andrew Fowler <andrew.fowler@watmangroup.com>
Subject: RE: Three Elms NEQ - Air Quality

Hi Andrew,

Thank you.

I have taken a look at this it seems fine. The only comment I have is that the fuel type is slightly different. Logs are used rather than pellets. Is this likely to impact on the emissions?

Is data available for PM10 also?

Kind regards

Philippa

From: Andrew Fowler <andrew.fowler@watmangroup.com>
Sent: 13 November 2023 11:38
To: Hargraves, Philippa <Philippa.Hargraves@herefordshire.gov.uk>
Cc: Ruth Martin <ruth.martin@watmangroup.com>
Subject: RE: Three Elms NEQ - Air Quality

Hi Philippa,

Not to worry, thank you for checking

I have used Defra's Biomass Emissions Screening Tool (Version 7) to estimate if the biomass boiler emissions are likely to exceed the annual mean NO₂ AQS objective or not.

Information and methodology used

- From the information you have provided, I have found the following technical specification [Fabbri Termomeccanica s.r.l.](#)
 - From this I have taken the flue height (1.2m) and flue width (0.2m) and estimated the height of the building (7m).
- I have then taken the annual mean background NO₂ concentration from Receptor 3 (1 Crest Court) of the Air Quality ES Chapter – estimated 2019 concentration (inclusive of roadside contribution) 11.1µg/m³.
- I have taken the NO_x emissions (143 mg/m³) from a slightly larger 250kw biomass boiler. See link to tech spec here: [SMART 250 kW - Smart Heating Technology](#)
- I have converted the NO_x emissions (143 mg/m³) to get an estimated emission rate of 0.016318272 g/s.

Results

- The emission rate of 0.016318272 g/s is significantly below the emission rate target of 0.0739 g/s.
- In accordance with Defra's Biomass Emissions Screening Tool (Version 7), as the maximum stack emission rate is less than the target then it is not likely that the annual mean objective for NO₂ will be exceeded.

Is the above assessment sufficient to show the biomass boiler at the log yard will not have an impact on future residential users of the Proposed Development?

Kind Regards,

Andy

Andrew Fowler
BSc (Hons) CEnv
Associate Director – Air Quality
Waterman Infrastructure & Environment Ltd

Advance notice of Annual Leave: 1st December



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From: Hargraves, Philippa <Philippa.Hargraves@herefordshire.gov.uk>
Sent: Monday, November 13, 2023 10:27 AM
To: Andrew Fowler <andrew.fowler@watermangroup.com>
Subject: RE: Three Elms NEQ - Air Quality

Hi Andrew

No, I am afraid I don't. This is the only information I have.

Kind regards
Philippa

From: Andrew Fowler <andrew.fowler@watermangroup.com>
Sent: 09 November 2023 17:46
To: Hargraves, Philippa <Philippa.Hargraves@herefordshire.gov.uk>
Subject: RE: Three Elms NEQ - Air Quality

Hi Philippa,

Thank you very much.

You don't have information on the emission rates for the boiler by any chance do you?

The information is not provided in the technical manual

Kind Regards,

Andy

Andrew Fowler
BSc (Hons) CEnv
Associate Director – Air Quality
Waterman Infrastructure & Environment Ltd

Advance notice of Annual Leave: 1st December



From: Hargraves, Philippa <Philippa.Hargraves@herefordshire.gov.uk>

Sent: Thursday, November 9, 2023 2:54 PM

To: Andrew Fowler <andrew.fowler@watermangroup.com>

Subject: RE: Three Elms NEQ - Air Quality

Hi Andrew,

Further to our telephone conversation the information on the boiler is:

FABBRI TERMOMECCANICA

FABBRI TERMOMECCANICA s.r.l.

Via Cangioti, 10 - 61122 - Pesaro – Italia Tel. 0721.282537 - Fax. 0721.282970 GENERATORE DI ARIA CALDA

APPARECCHIO TIPO - F 240

ANNO DI COSTRUZIONE - 2020

NUMERO DI SERIE - 351N

POT. MASS. FOC. KW 340 KCal/h292000

POT. TERMICA RESA KW 255 KCal/h 220000

TENSIONE V.400

POT. ELETTRICA KW 3,65

PORT. ARIA m3/h 17800

COMBUSTIBILE legna

PESO kg 850

Kind regards

Philippa

Philippa Hargraves

Environmental Health Officer

B.Sc.(Hons), M.Sc., MCIEH CEnvH

Herefordshire.gov.uk

From: Andrew Fowler <andrew.fowler@watermangroup.com>

Sent: 02 November 2023 15:12

To: Hargraves, Philippa <Philippa.Hargraves@herefordshire.gov.uk>

Subject: Three Elms NEQ - Air Quality

Good afternoon Philippa,

Thank you very much for sending through your air quality comments.

Would it be possible to have a call with you in the next few days to discuss the few outstanding points?

Kind Regards,

Andy

Andrew Fowler
BSc (Hons) CEnv
Associate Director – Air Quality
Waterman Infrastructure & Environment Ltd

Advance notice of Annual Leave: 1st December



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