

From: [Chris Johnston](#)
To: [Planning Comments \(SMDC\)](#)
Subject: FW: Air Quality Impact Assessment of Boiler Operations at Cheadle SMD/2024/0087
Date: 06 August 2024 14:44:13
Attachments: [image001.png](#)

From: EHealth Consultation <EHealth.Consultation@highpeak.gov.uk>
Sent: Tuesday, July 30, 2024 2:54 PM
To: Chris Johnston
Subject: RE: Air Quality Impact Assessment of Boiler Operations at Cheadle SMD/2024/0087

Good afternoon Chris,

Please note, that noise impacts will be considered separately and the following relates to air quality only in relation to application SMD/2024/0087.

The following is provided in reference to the additional information provided on 4th July 2024 in support of the above application.

At this time, Environmental Health cannot recommend approval of the above planning application due to concerns relating to impact on nearby residential receptors due to emissions of pollutants associated with the operation of the proposed biomass boilers.

An assessment was submitted with the application (dated June 2024) and a subsequent information provided (July 2024) in relation to concerns raised by this Department. Unfortunately, they do not provide sufficient clarification/ justification to alleviate the concerns:

1. RHI Certificate and emission rates. No information is available for the actual proposed model of biomass boilers being installed and the uncertainty associated with this has not been addressed within the assessments. It is acknowledged that this information is not available from the manufacturer and where emissions are greater, this could result in an underprediction of impacts in the assessments.
2. Industrial Emissions Screening Tool: Actual stack height has been utilised rather than effective stack height which is likely to under predict the impacts and needs justifying.
3. The discrepancy between background data sets has the potential to infer further uncertainty in the assessments. Further clarity is required between the different data sets being referred to and justification provided for using one set over another. Table 2 of the June 2024 assessment identified background data for NO₂ as 8.812, compared to 7.13 utilised in the SCAIL assessment. One aspect of screening short-term impacts compares the Process Contribution against the Air Quality Standard minus twice the background data as a percentage. Although it is noted in the latest response (July 2024) that this does not affect the assessment, it is not demonstrated to support the conclusion. It is further noted in the July 2024 response (Table 2) that this level is exceeded for NO₂ depending on the method of combining

emissions and is close to the screening limit utilising a different method to combine emissions.

4. The method of combining stacks is not accepted and further clarification and justification is required for this. Although the stacks are in close proximity, they are not adjoined or discharging through a common flue, so the reason for combining the stack data is unclear. This results in reduced emissions compared to when the stacks are treated independently and the pollutants summed. A single stack location appears to have been utilised for all the assessments and may not represent actual emission points for the model of boiler again adding further uncertainty within the assessment. It appears that the July 2024 modelling appears based on an existing boiler, a single 210kw boiler and a single 295kw boiler operating rather than all five operating simultaneously.
5. While good operation may aid in reducing emissions of smoke, there remains the potential for odour emissions associated with combustion of solid fuel in the biomass boilers which could have an impact on amenity and requires further consideration.
6. The operating hours of the boilers have been assessed based on 2496 hours for the existing boiler and 5328 hours for the proposed boilers and consideration to restrictions being placed on any planning permission may need to be considered.

The assessments undertaken to date are considered screening assessments. Due to the proximity to residential receptors and uncertainty, it may be necessary that detailed dispersion modelling will be required to be undertaken or the proposals re-visited with an updated screening assessment.

The following notes are made:

- > Where modelling is based on proposed operating hours, these may need to be conditioned as part of any planning permission granted.
- > A restriction may be required to be placed on make/ model of boilers unless otherwise subsequently assessed.
- > Due to concerns regarding the proximity of the boilers to residential receptors, a temporary permission may be appropriate to demonstrate the operation without resulting in odour impacts.

Kind regards,

Christopher Humphreys
Pollution and Environment Officer
Environmental Heath
High Peak Borough Council and Staffordshire Moorlands District Council

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From: EHealth Consultation

Sent: Friday, June 28, 2024 2:31 PM

To: Chris Johnston <Christopher.Johnston@StaffsMoorlands.gov.uk>

Subject: FW: Air Quality Impact Assessment of Boiler Operations at Cheadle SMD/2024/0087

Hi Chris,

Further to the email below, the choice of background pollutant values used in the assessment will also require clarification and justification.

Kind regards,

Christopher Humphreys

Pollution and Environment Officer

Environmental Heath

High Peak Borough Council and Staffordshire Moorlands District Council

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From: EHealth Consultation

Sent: Friday, June 28, 2024 2:12 PM

To: Chris Johnston

Subject: RE: Air Quality Impact Assessment of Boiler Operations at Cheadle SMD/2024/0087

Good afternoon Chris,

With regards to the above planning application and submission of the air quality impact assessment, there remains insufficient information to make a recommendation on this application at the present time.

> The AQ assessment utilises the emission rates within the RHI Certificate. While the certificate applies to GF175, GF210 and GF295 models for the purpose of the RHI scheme, only the emissions from the GF175 were assessed for the certificate. This results in uncertainty in the emission rates and impacts when applying it to the GF210 and GF295 and this is not accounted for in the assessment. Actual figures for the GF210 and GF295 models should be used for impacts on human health.

> The four new boilers have been grouped into a single stack for the purpose of the assessment. Clarification is required on why this is as this could have an

impact on the emission predictions which is not discussed in the assessment and another cause for uncertainty.

> The short-term impacts have been considered at the nearest receptor building. Residential gardens are closer to the stacks, approximately 25m and are relevant exposures for the purpose of human health assessment which do not appear to have been considered.

> It should be noted that within the application it states that not all burners may operate at the same time and as these do not operate on a continuous feed, there is potential that there will be periods where the boilers are heating up and cooling down at differing time with the potential to generate smoke and odour. Where 5 burners in operation, this could prolong the experience of nearby residents during these periods and this is not considered within the impact assessment. Given the proximity to residential gardens, this will need to be given consideration particularly during summer periods as well when the burners are likely to remain in operation.

Kind regards,

Christopher Humphreys
Pollution and Environment Officer
Environmental Heath
High Peak Borough Council and Staffordshire Moorlands District Council

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From: Chris Johnston

Sent: Monday, June 10, 2024 9:33 AM

To: EHealth Consultation <EHealth.Consultation@highpeak.gov.uk>

Subject: FW: Air Quality Impact Assessment of Boiler Operations at Cheadle SMD/2024/0087

Good morning

Please find enclosed revised Biomass boiler information in response to your previous comments.

The decision deadline on the application is Wed 19th June. If you are unable to provide further comments by that date then please let me know and I will request a further Time Extension from the applicant.

Regards
Chris

From: Andrew Martin <am.associates@ntlworld.com>
Sent: Friday, June 7, 2024 6:00 PM
To: Chris Johnston
Cc: Mark Gellatly
Subject: FW: Air Quality Impact Assessment of Boiler Operations at Cheadle SMD/2024/0087

Hi Chris,
Please see email below from Amanda Owen and attachments regarding air quality for your EH officer.
Hopefully this will now satisfy the last remaining issue and enable you to determine the application.

Kind regards

Andrew Martin

From: Amanda Owen
Sent: 07 June 2024 14:39
To: Mark Gellatly ; Andrew Martin <am.associates@ntlworld.com>
Subject: Air Quality Impact Assessment of Boiler Operations at Cheadle

Dear Mark and Andrew,

Please find attached an Air Quality Impact Assessment for the proposed boiler operations at The Woodyard in Cheadle. The zip file contains the input and output files for the SCAIL Assessment which the Council may wish to have for review.

I'm pleased to report that the results of the Industrial Emissions Screening Tool and the SCAIL Combustion assessments both show that the proposed emissions will not lead to any significant adverse impact on air quality and therefore, there should be no requirement for further assessment.

Should you have any queries or concerns regarding the attached report, please do not hesitate to contact me. Otherwise, please feel free to submit it to Staffordshire Moorlands Council in support of planning application ref: SMD 2024 0087.

Kind regards,

Amanda.

Dr Amanda Owen
Environmental Consultant

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