

LONG ACRES ENVIRONMENTAL STATEMENT

VOLUME 3: TECHNICAL APPENDICES APPENDICES TO CHAPTER E (NOISE AND VIBRATION)

Long Acres, South Tees Volume 3: Appendices

Chapter E: Noise

December 2020

Appendix E1: Consultation Correspondence

Young Youn

From: Mick Gent < Michael.Gent@redcar-cleveland.gov.uk>

Sent: 02 December 2020 14:02

To: Young Youn

Subject: [External] RE: Noise assessment approach - proposed developments at Dorman

Point / Foundry / Lackenby / Long Acre / Steel House sites

Hi Young

my only comment is that you should assume any plant will be facing the nearest NSR from the new development. regards

Mick Gent Contaminated Land Officer Redcar & Cleveland Borough Council

Environmental Protection Team

Public Health
Belmont House
Rectory Lane
Guisborough
Yorkshire
TS14 7FD

Tel: (01287) 612429

Email: <u>Michael.Gent@redcar-cleveland.gov.uk</u> Website: <u>http://www.redcar-cleveland.gov.uk</u>

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From: Young Youn [mailto:Young.Youn@arup.com]

Sent: 02 December 2020 13:57

To: Mick Gent < Michael.Gent@redcar-cleveland.gov.uk >

Subject: RE: Noise assessment approach - proposed developments at Dorman Point / Foundry / Lackenby / Long

Acre / Steel House sites

Good afternoon Mick

Do you have any further comments to make on the building services plant noise please?

Many thanks, Young

From: Young Youn

Sent: 29 November 2020 00:32

To: 'Mick Gent' < Michael.Gent@redcar-cleveland.gov.uk >

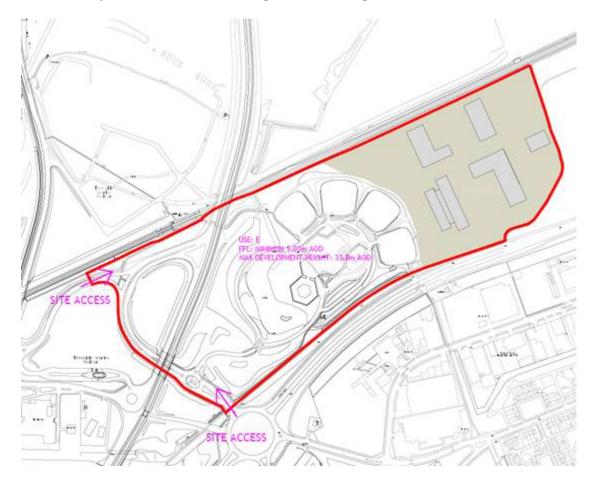
Subject: RE: Noise assessment approach - proposed developments at Dorman Point / Foundry / Lackenby / Long Acre / Steel House sites

Dear Mick

Hope you are well.

We have daily update on this proposal. Attached image below shows the existing office building and the proposed buildings on the eastern side of the site boundary.

It is our understanding that the area shown below in grey is the actual development locations, although the site boundary does include the existing office building.



This application is for new office buildings. Does this change your response? As I thought, there may have been bit of misunderstanding of the application.

Many thanks, Young

From: Mick Gent < Michael.Gent@redcar-cleveland.gov.uk >

Sent: 25 November 2020 07:19

To: Young Youn < Youn@arup.com>

Subject: [External] RE: Noise assessment approach - proposed developments at Dorman Point / Foundry / Lackenby / Long Acre / Steel House sites

Dear Young

Steel house has previously operated has offices - so yes ambient noise level will be fine, providing the plant room is in the same location as previous.

Regards

Mick Gent

Contaminated Land Officer

Redcar & Cleveland Borough Council

Environmental Protection Team

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From: Young Youn [mailto:Young.Youn@arup.com]

Sent: 24 November 2020 15:32

To: Mick Gent < Michael. Gent@redcar-cleveland.gov.uk >

Subject: RE: Noise assessment approach - proposed developments at Dorman Point / Foundry / Lackenby / Long

Acre / Steel House sites

Dear Mick

Thank you very much for your consideration and confirmation on the proposed approach.

Just to be clear as it was not clear in my previous email. The Steel House site is proposed to be office use.

Do you have a specific requirements for building service plant for offices? In the absence of the existing background noise levels, would it be reasonable to limit the building service plant noise to be no greater than existing ambient noise level (LAeq)?

Many thanks,

Young

From: Mick Gent < Michael.Gent@redcar-cleveland.gov.uk >

Sent: 24 November 2020 14:03

To: Young Youn < Young. Youn@arup.com>

Subject: [External] RE: Noise assessment approach - proposed developments at Dorman Point / Foundry / Lackenby

/ Long Acre / Steel House sites

Hi Young,

I have just had a look and I am happy with your approach.

regards

Mick Gent Contaminated Land Officer Redcar & Cleveland Borough Council

Environmental Protection Team

Public Health Belmont House Rectory Lane Guisborough Yorkshire TS14 7FD

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From: Young Youn [mailto:Young.Youn@arup.com]

Sent: 23 November 2020 22:54

To: Mick Gent < Michael. Gent@redcar-cleveland.gov.uk >

Subject: RE: Noise assessment approach - proposed developments at Dorman Point / Foundry / Lackenby / Long

Acre / Steel House sites

Dear Mick

Hope you are well.

Just following on below email, I was wondering whether you have had a chance to consider the proposed approach on the proposed developments at 5 sites: Dorman Point, Long Acres, Steel House, Foundry and Lackenby.

Kind regards, Young

From: Young Youn

Sent: 18 November 2020 14:06

To: Michael.Gent@redcar-cleveland.gov.uk

Subject: [Pending] Noise assessment approach - proposed developments at Dorman Point / Foundry / Lackenby /

Long Acre / Steel House sites

Dear Mick

I hope you are well.

My colleague, Roma Popovs, contacted you in regard to a noise and vibration assessment for the South Industrial Zone Environmental Statement in June 2020. Arup has been instructed to carry out noise and vibration assessments to form part of Environmental Statements for an additional 5 sites which are located relatively close to the South Industrial Zone. Please refer to the attached site location plans.

We are seeking your opinion on the proposed approach set out below with respect to a noise and vibration assessment for the proposed developments.

Proposed development

At this stage, details of the proposed developments is not fully advanced. All 5 sites are intended to be developed for uses of B2 (general industry) / B8 (industrial parks). Indicative site boundaries of the all 5 sites are attached.

Noise sensitive receptors

Although all 5 sites are located relatively close to each other, some of noise sensitive receptors might be subject to only some of 5 proposed developments. Residential receptors suggested in the initial email response (dated 9th June 2020) will be considered in the assessments.

Baseline conditions

We propose to carry out a desk-top study on the existing environment around the site and at sensitive receptors. This approach is considered *acceptable* and based on following reasons:

- If a baseline noise survey is to be carried out, the results from the survey may not be representative of the normal conditions (restriction of Covid-19 lockdown);
- IOA (Institute of Acoustics) and ANC (Association of Noise Consultant) have generated guidance on the baseline survey under the current situation that where possible to avoid doing a baseline survey instead a desk-based study to be carried out (as robust as possible); and
- Noise from road traffic and rail traffic is considered to be the main contributor to the existing environment at those noise sensitive receptors identified.

Based on the reasons above, in order to establish baseline noise levels at the noise sensitive receptors it is proposed that baseline noise levels will be predicted from Road and Rail.

Thank you for providing a previous planning application that might contain useful baseline information: an *Outline Planning Application for an Overhead Conveyor and associated storage facilities in connection with the York Potash Project* planning ref. R/2017/0906/OOM. We have reviewed the documents. The noise assessment of this application did include the results of a baseline noise survey undertaken in 2014. As the baseline data were measured over 5 years ago, the baseline data may not be fully representative of the current existing conditions.

Construction assumptions

Details of construction programme for each site including construction activities and programme is not available at this stage. As previously proposed, we intend to assess the potential construction effects based on a reasonable worst case scenarios that typical construction activities for light industrial development will include.

Operational assessment

The operation of the proposed development is considered as industrial noise. An assessment of industrial type of noise source would normally be assessed in accordance with BS4142. In the absence of the background noise level (L_{A90}) due to the Covid-19 pandemic, it is proposed to assess the potential operational effects based on absolute noise levels set out in BS8233 for residential properties. We will also consider commercial receptors.

Operational road traffic noise will be assessed based on the assessment criteria set out in DMRB LA 111.

References

- Professional Practice Guidance on Planning and Noise (ProPG)
- National Planning Policy Framework (NPPF);
- Noise Policy Statement for England (NPSE);
- BS 5228:2009+A1:2014 Code of Practice for noise and vibration control on construction and open sites, Part 1: Noise and Part 2: Vibration;
- BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound;
- BS 8233:2014 Guidance on sound insulation and noise reduction for buildings;
- Design Manual for Roads and Bridges LA 111, Noise and Vibration, Revision 2;

Regards Young

Gwanyoung Youn

Consultant | Acoustics BEng MSc MIOA

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From: Roma Popovs < Roma.Popovs@arup.com >

Sent: 19 June 2020 09:29

To: Michael.Gent@redcar-cleveland.gov.uk

Cc: Martin Butterfield < <u>Martin.Butterfield@arup.com</u>>; Greg Harris < <u>Greg.Harris@arup.com</u>>; Laura McLeod < <u>Laura.McLeod@arup.com</u>>; Katie Brown < <u>katie.brown@lichfields.uk</u>>; Gemma Tait < <u>Gemma.Tait@arup.com</u>>; david.pedlow@redcar-cleveland.gov.uk

Subject: FW: Proposed development - South Industrial Zone (South Tees)

Hi Mick

Thank you for getting back to us and providing some useful leads with respect to baseline, unfortunately, none of the references provide sound level survey information that could assist our study.

Currently we are working on a set of assumptions for the noise assessments. We are trying to go with a reasonable worst case approach, taking in consideration that the closest sensitive receptors are located around 500 metres from the site boundary.

Baseline sound levels

We are unable to undertake any sound level surveys at the moment. This is due to our current company Health and Safety constraints and the likelihood that the current sound environment may not be representative, e.g. road traffic flows and industrial activity in the area. We are, therefore, proposing to model existing rail and traffic sources to establish baseline levels for daytime and night-time. We are unable

to include other sound sources, e.g. industrial, within the noise model with any degree of certainty so will rely on road and rail. This is considered to represents a conservative baseline.

Rail Traffic

We will predict rail noise levels to estimate the baseline and the future baseline levels. We assume that no change will occur in the train service schedule. Flows and class of the trains will be taken from the scheduled timetable within next 3 months from www.realtimetrain.co.uk and averaged.

Road Traffic

The traffic flows are based on the North Regional Transport Model (NRTM)

Construction

Due to lack of detailed construction information at this stage we are proposing to apply a reasonably worst case approach. We are proposing to use piling rig sound sources with the highest noise levels (taken from BS5228) and locate each source at the southern edge of each proposed building (with reference to the attached layout), which is considered to represent the worst case scenario for noise assessment. Vibration will be scoped out given the separation distance between the site and sensitive receptors.

Construction hours are assumed to be 24hrs a day, 7 days per week, which is understood to be common practice in the area.

Operation

The proposed development is described as Class B2 (General Industry), as a reasonably worst case from acoustics point of view. The attached drawings illustrate the currently proposed site plan indicating the location of the buildings and the vehicle movement/access points.

The maximum height of the proposed buildings are considered to be 35m. No further information is available at the time of writing. We propose the following sources assumptions for the operational activities:

-Building breakout noise

Internal reverberant sound level of 85dBA. Each building assumed to be 35m high, model sound propagation using ISO9613 Acoustics – Attenuation of Sound during Propagation Outdoors: Part 2: General Method of Calculation (1996).

- -Each building has an associated industrial AHU unit/large extract fan unit on the south of the building positioned near the roof. Propagation using ISO9613.
- -Traffic movements in and out model using Calculation of Road Traffic Noise (CRTN)
- -Operating hours is considered to be 24hrs a day, 7 days per week.

Please can you confirm if the above assumptions are satisfactory.

Regards Roma

From: Cat Dixon <Cat.Dixon@arup.com>

Sent: 10 June 2020 09:23

To: Roma Popovs < Roma.Popovs@arup.com >

Cc: Martin Butterfield < Martin.Butterfield@arup.com>; Gemma Tait < Gemma.Tait@arup.com>; John Hodgson

<<u>John.Hodgson@arup.com</u>>

Subject: FW: Proposed development - South Tees Development Corporation

Hi Roma,

We've received the EHO response on noise and AQ – see below.

Thanks, Cat

Please note, my normal working days are Monday to Thursday.

From: Mick Gent < Michael.Gent@redcar-cleveland.gov.uk >

Sent: 09 June 2020 11:15

To: Cat Dixon < Cat.Dixon@arup.com>

Cc: David Pedlow < David.Pedlow@redcar-cleveland.gov.uk >

Subject: [External] FW: Proposed development - South Tees Development Corporation

Morning Cat,

Please see our response below,

The following planning application has an accompanying EIR - Outline Planning Application For An Overhead Conveyor And Associated Storage Facilities In Connection With The York Potash Project R/2017/0906/OOM which may help with both AQ and noise.

AQ:

RCBCs 2020 ASR with 2019 data will be submitted to Defra by the end of June 2020, 2019 data is available if you can advise what is required.

We would still want to see the justification for scoping out construction traffic.

Will there be any consideration of cumulative AQ impact of the overall site development on current commercial activities including other proposed applications i.e energy from waste application on the Prairie site?

It is likely the site will generate a large increase in traffic levels – therefore we would like your assessment to consider traffic along the A66 through Middlesbrough and the southbank area of RCBC.

We have a NOx tube on the A66 just after the Bolckow Ind Est entrance (heading towards M'bro) it's not exceed the $40\mu g$ limit yet, but we are seeing an increase each year and its average is generally late $20\mu g$'s but we have seen monthly totals in the late $30\mu g$'s.

Noise

The site in general was regulated under a A1 permit by the Environment Agency, and when in operation particularly the Blast furnace area in Redcar did generate noise complaints which both ourselves initially and the Agency investigated. (we have not monitored with a noise meter)

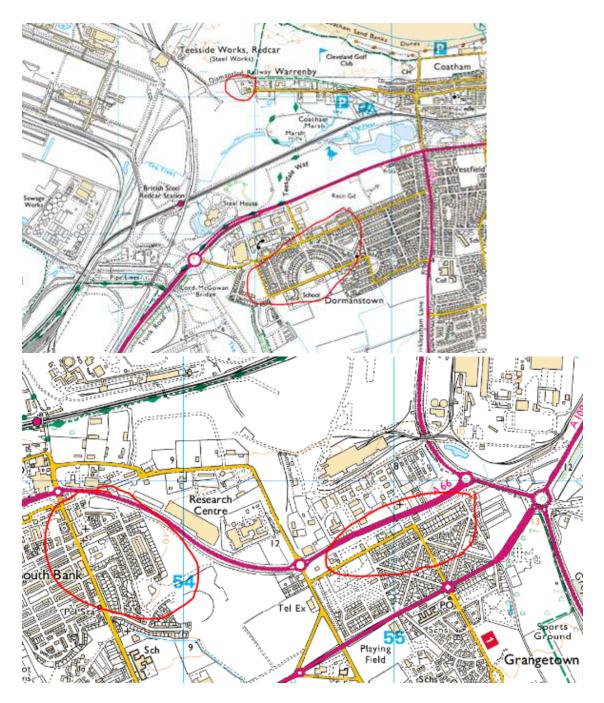
Base line monitoring may have been carried out for the Scoping Opinion Under Part 2 Section 6 Of The Town And Country Planning (Environmental Impact Assessment) Regulations 2017 Energy From Waste Plant (Efw) R/2019/0700/SCP prior to the Covid restrictions.

We are not sure of the quality of the Defra noise maps for use, they are very broad scale. Given the ongoing changes in the is it still not possible to undertake any form of noise monitoring?

We are not aware of any loud industrial noise activities (Or other activity) with close proximity to the study area, that may affect the baseline levels, however the MGT biomass plant I believe is in the commissioning stage, and there is also operations on Redcar Bulk terminal for storage of arising's from the tunnel on the Anglo American polyhalite project

Highlighted closest residential properties circled in red below.

The following planning application has an accompanying EIR - Outline Planning Application For An Overhead Conveyor And Associated Storage Facilities In Connection With The York Potash Project R/2017/0906/OOM may help with any sensitive non-residential receptors within the study area.



We currently do not have any noise policy related document on the council's website so the general list you have proposed below is acceptable

- Professional Practice Guidance on Planning and Noise (ProPG)
- National Planning Policy Framework (NPPF);
- Noise Policy Statement for England (NPSE);
- BS 5228:2009+A1:2014 Code of Practice for noise and vibration control on construction and open sites, Part 1: Noise and Part 2: Vibration; (Discuss concessions on working hours (eg long processes that must be continuous such as concrete pumping).
- BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound; (what target noise criteria is considered appropriate for this area (eg rating level not to exceed background level).
- British Standard BS 8233:2014 Guidance on sound insulation and noise reduction for buildings;

- Design Manual for Roads and Bridges LA 111, Noise and Vibration, Revision 1;
- BS 6472 (2008), Guide to Evaluation of Human Exposure to Vibration in Buildings;

Regards

Mick Gent Contaminated Land Officer Redcar & Cleveland Borough Council

Environmental Protection Team

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From: Mick Gent

Sent: 26 May 2020 14:26 To: Cat.Dixon@arup.com

Subject: FW: Proposed development - South Tees Development Corporation

Hi Cat,

I'll pass this on to relevant colleagues to comment and get back to you.

With respect to Greenhouse gasses assessment we don't have a climate change officer. Rebecca Wren (Planning Strategy Manager) is leading the work on our emerging Environment Strategy and is happy to speak to you. Regards

Mick Gent

Contaminated Land Officer

Redcar & Cleveland Borough Council

Environmental Protection Team

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From: Environmental Protection Sent: 22 May 2020 11:21

To: Mick Gent < Michael. Gent@redcar-cleveland.gov.uk >

Subject: FW: Proposed development - South Tees Development Corporation

From: Cat Dixon < Cat.Dixon@arup.com>

Sent: 22 May 2020 10:32

To: Environmental Protection < Environmental. Protection@redcar-cleveland.gov.uk >

Cc: Gemma Tait <Gemma.Tait@arup.com>; Tom Wardley <Tom.Wardley@arup.com>; Roma Popovs

<Roma.Popovs@arup.com>

Subject: Proposed development - South Tees Development Corporation

Good Morning,

My colleagues and I are working on an EIA for the South Tees Development Corporation's (STDC) forthcoming outline planning application for the Southern Industrial Zone, South Tees area, Redcar, which Lichfields has discussed with Adrian Miller (Head of Planning). To assess the potential impacts, we would like to discuss the methodologies and queries outlined below with relevant officers at the council to address any comments that you may have at this stage. We have broken down our comments into air quality, noise, and greenhouse gases. We have also provided some background information on this scheme below if useful.

I would be grateful if you could please review the below or pass these notes to the relevant person. We are working to very tight time scales at present so I would greatly appreciate your input as soon as possible.

As an aside, please treat this project as confidential.

Introduction to the scheme

The proposed development will comprise storage or distribution facilities (Use Class B8) and general industry (Use Class B2) with ancillary office accommodation (Use Class B1). A separate application will also be bought forward for a new quay and dredging within the River Tees in addition to land-based development. Arup is assisting with the planning application and EIA for the land-based development. The landside development will include site remediation, new accesses to the site, new buildings, installation of a surface water drainage system, a pumped drainage system, a power supply system and water supply system, and associated ancillary works.

We attach a draft red line boundary and draft development parameters. These are subject to change following ongoing environmental assessments but will help form our initial discussions.

Air Quality
Contact: Cat Dixon

To assess the potential impacts on air quality, we would propose the methodology outlined below for the EIA chapter and we would like to address any queries that you may have.

Scope of assessment

- A baseline assessment will be undertaken to determine existing air quality in the area using available data from the Redcar and Cleveland Borough Council (RCBC) review and assessment process and data available from the Defra UK-Air Website;
- An assessment of construction dust and emissions during the construction phase of the proposed development will be undertaken. The Institute of Air Quality Management (IAQM) guidance for the assessment of dust from demolition and construction will be followed;
- At this time, it is assumed that the construction traffic assessment will be scoped out. This will be confirmed following receipt of construction traffic data, which will be screened using the IAQM screening criteria;
- An assessment of operational impacts resulting from the proposed development will be carried out, including detailed dispersion modelling of the emissions from operational traffic should the IAQM screening criteria be exceeded;
- No assessment of car parks or combustion sources are proposed at this time, based on the information available about the proposed development;
- All marine elements associated with the new quay and dredging will be covered in a separate
 assessment, including emissions from ships and any potential impacts from shipping emissions to
 onshore receptors;
- We will screen traffic data and if required, assess impacts to both human and ecological receptors in the area:
- Model verification will be undertaken, using data from RCBC monitoring sites that are suitable for verification once traffic data is available; and
- Mitigation measures will be recommended for the construction and operational phases, should they be required.

We would also like to ask if 2019 monitoring data is available? If not, we will use the 2019 ASR and a baseline year of 2018.

Greenhouse Gases Contact: Tom Wardley

Our carbon and climate change team are assessing the whole lifecycle greenhouse gas emissions for the scheme, including embodied material emissions, construction process emissions, and operational emissions for the design life of the project. We would like to discuss the impact of the scheme with the climate change officer at the council. In particular we would like to confirm our understanding of the council's climate change targets and mitigation strategy, and discuss our methodology and assumptions to ensure the assessment is as robust as possible for the planning application. Could you advise who to speak to about this and provide their contact details please?

Noise

Contact: Roma Popovs

The Noise team would like to discuss:

- 1) The noise baseline, since due to COVID-19 it will be impossible to undertake any noise survey, therefore we need to agree on the way we gather the baseline levels (e.g. modelling approach, getting data from DEFRA maps, any other available data from council) and what year we should use for the baseline. (The Steelworks was closed just 5 years ago)
- 2) Any loud industrial noise activities(Or other activity) with close proximity to the study area, that may affect our baseline levels.
- 3) Highlight closest residential properties and any sensitive non-residential receptors within the study area.
- 4) Agree on the policies and guidance that we are planning to use. Is there any specific requirement from the Council? (Currently we cannot find any noise policy related document on the council's website) so a general list would be (based on the information that we have right now):
 - Professional Practice Guidance on Planning and Noise (ProPG)

- National Planning Policy Framework (NPPF);
- Noise Policy Statement for England (NPSE);
- BS 5228:2009+A1:2014 Code of Practice for noise and vibration control on construction and open sites, Part 1: Noise and Part 2: Vibration; (Discuss concessions on working hours (eg long processes that must be continuous such as concrete pumping).
- BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound; (what target noise criteria is considered appropriate for this area (eg rating level not to exceed background level).
- British Standard BS 8233:2014 Guidance on sound insulation and noise reduction for buildings;
- Design Manual for Roads and Bridges LA 111, Noise and Vibration, Revision 1;
- BS 6472 (2008), Guide to Evaluation of Human Exposure to Vibration in Buildings;
- 4) Assumptions that we have to propose due to lack of detailed design information
- 5) Any other consultees that we should be contacted with regard to noise impacts associated with this development.

Many thanks for your help. Looking forward to hearing from you.

Kind regards,

Cat

Cat Dixon

Environmental Consultant | Environment and Sustainability

BSc (Hons) MSc AMIEnvSc Associate Member IAQM

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