



# South Industrial Zone

Environmental Statement  
July 2020

Volume 3 - Technical Appendices

Appendices to Chapter F  
(Air Quality)



# **Appendix F1: Construction dust methodology, supplementary information**

# Construction Dust Methodology, Supplementary Information

## Dust Emission Magnitude

Table 1: Dust emission magnitude

Small	Medium	Large
<b>Demolition</b>		
<ul style="list-style-type: none"> <li>total building volume &lt;20,000m<sup>3</sup></li> <li>construction material with low potential for dust release (e.g. metal cladding or timber)</li> <li>demolition activities &lt;10m above ground</li> <li>demolition during wetter months</li> </ul>	<ul style="list-style-type: none"> <li>total building volume 20,000 - 50,000m<sup>3</sup></li> <li>potentially dusty construction material</li> <li>demolition activities 10 - 20m above ground level</li> </ul>	<ul style="list-style-type: none"> <li>total building volume &gt;50,000m<sup>3</sup></li> <li>potentially dusty construction material (e.g. concrete)</li> <li>on-site crushing and screening</li> <li>demolition activities &gt;20m above ground level</li> </ul>
<b>Earthworks</b>		
<ul style="list-style-type: none"> <li>total site area &lt;2,500m<sup>2</sup></li> <li>soil type with large grain size (e.g. sand)</li> <li>&lt;5 heavy earth moving vehicles active at any one time</li> <li>formation of bunds &lt;4m in height</li> <li>total material moved &lt;10,000 tonnes</li> <li>earthworks during wetter months</li> </ul>	<ul style="list-style-type: none"> <li>total site area 2,500m<sup>2</sup> - 10,000m<sup>2</sup></li> <li>moderately dusty soil type (e.g. silt)</li> <li>5 – 10 heavy earth moving vehicles active at any one time</li> <li>formation of bunds 4 - 8m in height</li> <li>total material moved 20,000 - 100,000 tonnes</li> </ul>	<ul style="list-style-type: none"> <li>total site area &gt;10,000m<sup>2</sup></li> <li>potentially dusty soil type (e.g. clay, which will be prone to suspension when dry due to small particle size)</li> <li>&gt;10 heavy earth moving vehicles active at any one time</li> <li>formation of bunds &gt;8m in height</li> <li>total material moved &gt;100,000 tonnes</li> </ul>
<b>Construction</b>		
<ul style="list-style-type: none"> <li>total building volume &lt;25,000 m<sup>3</sup></li> <li>construction material with low potential for dust release (e.g. metal cladding or timber)</li> </ul>	<ul style="list-style-type: none"> <li>total building volume 25,000 - 100,000m<sup>3</sup></li> <li>potentially dusty construction material (e.g. concrete)</li> <li>on-site concrete batching</li> </ul>	<ul style="list-style-type: none"> <li>total building volume &gt;100,000m<sup>3</sup></li> <li>on-site concrete batching</li> <li>sandblasting</li> </ul>
<b>Trackout</b>		
<ul style="list-style-type: none"> <li>&lt;10 HDV (&gt;3.5t) outward movements in any one day</li> <li>surface material with low potential for dust release</li> <li>unpaved road length &lt;50m</li> </ul>	<ul style="list-style-type: none"> <li>10 – 50 HDV (&gt;3.5t) outward movements in any one day</li> <li>moderately dusty surface material (e.g. high clay content)</li> <li>unpaved road length 50 – 100m</li> </ul>	<ul style="list-style-type: none"> <li>&gt;50 HDV (&gt;3.5t) outward movements in any one day</li> <li>potentially dusty surface material (e.g. high clay content)</li> <li>unpaved road length &gt;100m</li> </ul>

## Sensitivity of the Area to Dust Soiling Effects

Table 2: Sensitivity of the area to dust soiling effects

Receptor sensitivity	Number of receptors	Distance from the source (m)			
		< 20	< 50	< 100	< 350
High	> 100	High	High	Medium	Low
	10 – 100	High	Medium	Low	Low
	< 10	Medium	Low	Low	Low
Medium	> 1	Medium	Low	Low	Low
Low	> 1	Low	Low	Low	Low

## Sensitivity of the Area to Human Health Impacts

Table 3: Sensitivity of the area to human health impacts

Background PM <sub>10</sub> concentrations (annual mean)	Number of receptors	Distance from the source (m)				
		< 20	< 50	< 100	< 200	< 350
<i>High receptor sensitivity</i>						
> 32µg/m <sup>3</sup>	> 100	High	High	High	Medium	Low
	10 – 100			Medium	Low	
	< 10			Medium	Low	
28 – 32µg/m <sup>3</sup>	> 100	High	High	High	Medium	Low
	10 – 100			Medium	Low	
	< 10			Medium	Low	
24 – 28µg/m <sup>3</sup>	> 100	High	Medium	Low	Low	Low
	10 – 100					
	< 10					
< 24µg/m <sup>3</sup>	> 100	Medium	Low	Low	Low	Low
	10 – 100	Low				
	< 10	Low				
<i>Medium receptor sensitivity</i>						
> 32µg/m <sup>3</sup>	> 10	High	Medium	Low	Low	Low
	< 10	Medium	Low			
28 – 32µg/m <sup>3</sup>	>10	Medium	Low	Low	Low	Low
	1 -10	Low				
24 – 28µg/m <sup>3</sup>	>10	Low	Low	Low	Low	Low
	1 -10					
< 24µg/m <sup>3</sup>	>10	Low	Low	Low	Low	Low
	1 -10					
<i>Low receptor sensitivity</i>						
–	> 1	Low	Low	Low	Low	Low

## Sensitivity of the Area to Ecological Impacts

Table 4: Sensitivity of the area to ecological impacts

Receptor sensitivity	Distance from the source (m)	
	< 20	< 50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

## Risk of Dust Impacts

Table 5: Risk of dust impacts

Sensitivity of area	Dust emission magnitude		
	Large	Medium	Small
<i>Demolition</i>			
High	High risk site	Medium risk site	Medium risk site
Medium	High risk site	Medium risk site	Low risk site
Low	Medium risk site	Low risk site	Negligible
<i>Earthworks</i>			
High	High risk site	Medium risk site	Low risk site
Medium	Medium risk site	Medium risk site	Low risk site
Low	Low risk site	Low risk site	Negligible
<i>Construction</i>			
High	High risk site	Medium risk site	Low risk site
Medium	Medium risk site	Medium risk site	Low risk site
Low	Low risk site	Low risk site	Negligible
<i>Trackout</i>			
High	High risk site	Medium risk site	Low risk site
Medium	Medium risk site	Low risk site	Negligible
Low	Low risk site	Low risk site	Negligible

## **Appendix F2: Traffic Data and Road Details**

# Traffic Data and Road Details

2.1 The modelled road network used in this assessment is presented below in Table 1 and was used for both the construction traffic and operational traffic assessments.

2.2 The traffic data used in the operational traffic assessments is shown below in Table 2.

Table 1: Modelled road network details for construction and operational traffic assessments

AQ ID	Road name	Modelled as junction	Road width (m)
18_1	A1085 Trunk Road	Road	12.5
18S_J1	A1085 Trunk Road	Junction	11.0
18N_J2	A1085 Trunk Road	Junction	8.0
20S_J1	A1053 Greystones Road	Junction	6.5
20N_J2	A1053 Greystones Road	Junction	10.0
20_1	A1053 Greystones Road	Road	19.0
R_TR	Trunk Road roundabout	Roundabout	13.0
19N_1	A1085 Broadway	Road	7.0
19S_2	A1085 Broadway	Road	7.0
17_J3	A1053 Tees Dock Road	Junction	22.0
17S_J1	A1053 Tees Dock Road	Junction	8.0
17N_J2	A1053 Tees Dock Road	Junction	8.0
17_1	A1053 Tees Dock Road	Road	18.0
15_2	A66	Road	17.8
15_J2	A66	Junction	20.6
15_J1	A66	Junction	21.9
15_1	A66	Road	18.8
12_J1	A66	Junction	22.7
12_J2	A66	Junction	20.3
12_1	A66	Road	19.0
7_J2	A66	Junction	20.2
7_1	A66	Road	16.9
R_A66	A66 Roundabout	Roundabout	11.8
7_J1	A66	Junction	26.9
19_3	A1085 Broadway	Road	7.4
20_J1	A1053 Greystones Road	Junction	27.0
20_1	A1053 Greystones Road	Road	19.0
R_TDR	Tees Dock Road roundabout	Roundabout	10.0
16_J1	Tees Dock Road	Junction	16.0
16_1	Tees Dock Road	Road	9.8
10_1	Normanby Road	Road	11.1
10_J1	Normanby Road	Junction	17.0
11_J1	Normanby Road	Junction	15.3
14_1	Church Lane	Junction	11.4
8_1	Middlesbrough Road East	Road	6.9

AQ ID	Road name	Modelled as junction	Road width (m)
8_J1	Middlesbrough Road East	Junction	14.5
2_1	Dockside Road	Road	7.0
3_1	Old Station Road	Road	6.6
3_J1	Old Station Road	Junction	15.8
3_J2	Old Station Road	Junction	15.6
2_J1	Dockside Road	Junction	11.6
6_J1	A66	Junction	31.0
6_1	A66	Road	17.8
6_J1	A66	Junction	23.3
9_J1	Middlesbrough Road West	Junction	18.4
9_1	Middlesbrough Road West	Road	7.5
1_1	B1513 Dockside Road	Road	6.7
1_J1	B1513 Dockside Road	Junction	11.6
R_HS	High Street roundabout	Roundabout	10.0
21_J1	B1380 High Street	Junction	10.3
21_1	B1380 High Street	Road	7.0
22E_J1	A174	Junction	11.7
22E_1	A174	Road	8.5
22W_1	A174	Road	7.4
22W_J1	A174	Junction	7.7
23_J1	A174	Junction	29.0
23_1	A174	Road	22.0
15_J3	A66	Junction	20.4
19N_J1	A1085 Broadway	Junction	7.1
19S_J2	A1085 Broadway	Junction	7.3
11_J2	Normanby Road	Junction	9.0
<p>Notes:</p> <p>The road type was "urban (not London)".</p> <p>Traffic data were provided by Arup transport consultants, with the exception of the flows for the roundabouts, which were calculated by the air quality specialists using the flows from the arms of the roundabouts as provided.</p>			



Table 2: Operational traffic data

AQ ID	Speed (kph)	2019 Baseline		2028 Do-Minimum		2028 Do-Something	
		AADT	%HDV	AADT	%HDV	AADT	%HDV
18_1	112	15,227	7%	15,981	7%	17,414	7%
18S_J1	20	7,401	7%	7,752	7%	8,742	8%
18N_J2	20	7,826	7%	8,230	7%	8,672	7%
20S_J1	20	10,161	9%	11,040	9%	11,844	9%
20N_J2	20	9,630	9%	10,396	9%	11,841	9%
20_1	112	19,791	9%	21,436	9%	23,685	9%
R_TR	20	18,637	8%	19,853	8%	21,799	8%
19N_1	64	3,024	7%	3,347	7%	3,391	7%
19S_2	64	4,004	7%	4,453	7%	4,524	7%
17_J3	20	32,503	7%	34,196	7%	38,180	8%
17S_J1	20	17,448	7%	18,562	7%	19,886	8%
17N_J2	20	15,055	7%	15,634	7%	18,294	8%
17_1	112	32,503	7%	34,196	7%	38,180	8%
15_2	80	39,407	10%	41,326	10%	43,731	10%
15_J2	20	39,407	10%	41,326	10%	43,731	10%
15_J1	20	39,407	10%	41,326	10%	43,731	10%
15_1	80	39,407	10%	41,326	10%	43,731	10%
12_J1	20	43,006	13%	44,519	13%	46,848	13%
12_J2	20	43,006	13%	44,519	13%	46,848	13%
12_1	80	43,006	13%	44,519	13%	46,848	13%
7_J2	20	35,805	13%	37,060	13%	39,593	13%
7_1	80	35,805	13%	37,060	13%	39,593	13%
R_A66	20	16,958	12%	17,799	12%	20,465	12%
7_J1	20	35,805	13%	37,060	13%	39,593	13%
19_3	64	7,028	7%	7,800	7%	7,915	7%
20_J1	20	19,791	9%	21,436	9%	23,685	9%
20_1	112	19,791	9%	21,436	9%	23,685	9%
R_TDR	20	31,239	14%	32,976	14%	36,999	14%
16_J1	20	21,808	32%	23,406	32%	29,088	28%

AQ ID	Speed (kph)	2019 Baseline		2028 Do-Minimum		2028 Do-Something	
		AADT	%HDV	AADT	%HDV	AADT	%HDV
16_1	48	21,808	32%	23,406	32%	29,088	28%
10_1	48	6,274	18%	6,622	18%	6,764	18%
10_J1	20	6,274	18%	6,622	18%	6,764	18%
11_J1	20	7,045	1%	7,186	1%	7,399	2%
14_1	20	7,132	1%	7,284	1%	7,492	1%
8_1	48	1,964	1%	2,211	1%	2,492	2%
8_J1	20	1,964	1%	2,211	1%	2,492	2%
2_1	48	2,357	24%	2,452	24%	10,975	14%
3_1	48	7,298	18%	7,915	18%	12,873	15%
3_J1	20	7,298	18%	7,915	18%	12,873	15%
3_J2	20	7,298	18%	7,915	18%	12,873	15%
2_J1	20	2,357	24%	2,452	24%	10,975	14%
6_J1	20	34,992	13%	35,518	13%	39,580	13%
6_1	80	34,992	13%	35,518	13%	39,580	13%
6_J1	20	34,992	13%	35,518	13%	39,580	13%
9_J1	20	4,733	1%	6,292	1%	7,786	3%
9_1	48	4,733	1%	6,292	1%	7,786	3%
1_1	80	5,179	28%	5,357	28%	8,890	22%
1_J1	20	5,179	28%	5,357	28%	8,890	22%
R_HS	20	24,563	4%	27,131	4%	28,255	5%
21_J1	20	6,688	9%	7,463	9%	7,605	9%
21_1	48	6,688	9%	7,463	9%	7,605	9%
22E_J1	20	16,447	4%	18,256	4%	18,773	4%
22E_1	112	16,447	4%	18,256	4%	18,773	4%
22W_1	112	16,711	4%	18,951	4%	19,179	4%
22W_J1	20	16,711	4%	18,951	4%	19,179	4%
23_J1	20	38,615	2%	42,416	2%	43,778	2%
23_1	80	38,615	2%	42,416	2%	43,778	2%
15_J3	20	39,407	10%	41,326	10%	43,731	10%
19N_J1	20	3,024	7%	3,347	7%	3,391	7%

AQ ID	Speed (kph)	2019 Baseline		2028 Do-Minimum		2028 Do-Something	
		AADT	%HDV	AADT	%HDV	AADT	%HDV
19S_J2	20	4,004	7%	4,453	7%	4,524	7%
11_J2	20	7,045	1%	7,186	1%	7,399	2%

## **Appendix F3: Consultation records**

**From:**  
**Sent:** 23 June 2020 12:06  
**To:**  
**Cc:**  
**Subject:** RE: Proposed development - South Tees Development Corporation [Filed 23 Jun 2020 12:06]

Hi

Many thanks for the below. I've had some back and forth with our transport team to discuss extending the data extent up to Middlesbrough. It will be possible to do this work, but not to the timelines that we are currently working to for planning submission. With the EIA coordination team, we have discussed submitting an addendum air quality assessment that will subsequently include the assessment of the A66, to accompany the current assessment that will use the traffic extent as shown in my previous email. I hope that this is agreeable to you. I'm aware that Katie at Lichfields has discussed this approach with David Pedlow, our case officer, and this seems to be the best way forward.

RE the Prairie EFW site – I agree that this needs to be included in the cumulative assessment, however the air quality assessment for that project is not currently available to us. So we will also include the Prairie EFW in the addendum, by which time hopefully that air quality assessment will be available. Hope that sounds reasonable to you. Again, I understand that Katie has discussed this with David.

Lastly, please could you send across your 2019 monitoring data? We can add that to our baseline assessment. We are using 2018 as our baseline year as the monitoring data is readily available, and will carry out model verification using 2018 monitored data.

I hope this covers off all of your points in your previous responses but do get in touch if you'd like to discuss anything further.

Many thanks for your help.

Kind regards,  
Cat

Environmental Consultant | Environment and Sustainability  
BSc (Hons) MSc AMIEnvSc Associate Member IAQM

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Central Square Forth Street Newcastle upon Tyne NE1 3PL United Kingdom

[www.arup.com](http://www.arup.com)

 Before you print this email, please consider the environment.

Please note, my working days are Monday to Thursday.

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**From:**  
**Sent:** 10 June 2020 11:33



**To:**

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

Hi

We have a joint DPH covering both RCBC and MBC, and are currently in the development stage of joint AQ strategy; therefore a joined up approach to the area would be required for the assessment to ensure there will be no negative impact from the development across both authorities. – Recently, Middlesbrough did a lot of work with DEFRA on LEZ for the flyover circled below ( M’bro were able to show that the area did not require LEZ) however I think it would be remiss of us on such a large application to not consider this.

Could you consider M’bro traffic data? or can you be clear that point 6 would cover the traffic coming into the Redcar Cleveland Borough from Middlesbrough is sufficient?



Regards

## Contaminated Land Officer Redcar & Cleveland Borough Council

Environmental Protection Team  
Public Health  
Belmont House  
Rectory Lane  
Guisborough  
Yorkshire  
TS14 7FD  
Tel: (01287) 612429  
Email:  
Website: <http://www.redcar-cleveland.gov.uk>

Follow us on Twitter: @redcarcleveland  
Like us on Facebook: facebook.com/redcarcleveland



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**From:**

**Sent:** 10 June 2020 10:34

**To:**

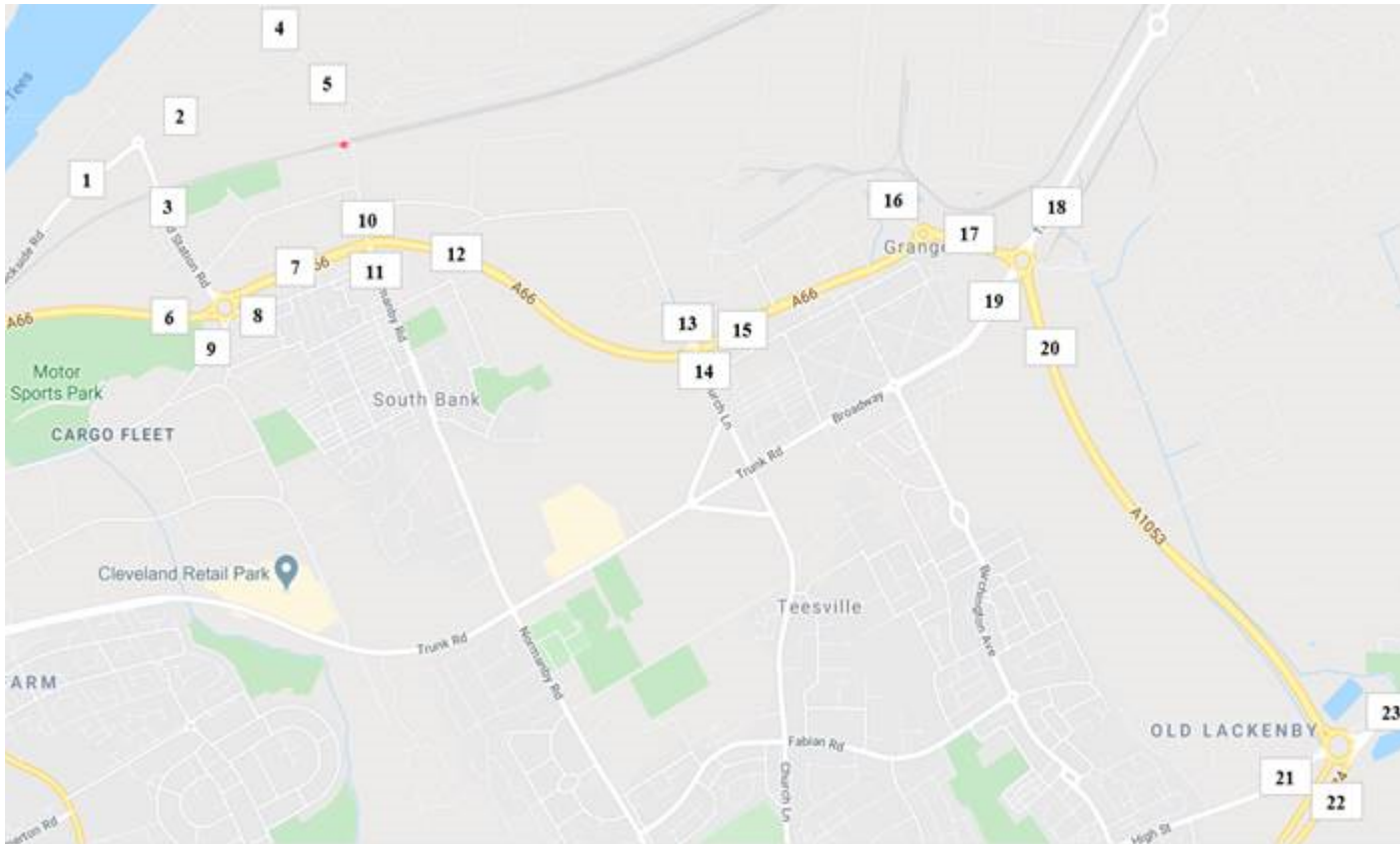
**Cc:**

**Subject:** RE: Proposed development - South Tees Development Corporation

Hi

Thanks for sending through the below responses, that's very helpful. I have passed this across to my noise colleagues to review too.

I will follow up on all of the air quality points you raise below shortly, but the main point that stands out to me is about the extent of the traffic assessment. I have included a screenshot below from my transport colleagues – this is the full extent of their model. They have confirmed that there is no other data available to me. I hope this is sufficient to cover the requested area: “consider traffic along the A66 through Middlesbrough and the southbank area of RCBC” but if you could let us know your thoughts as soon as possible, that would be great so that we can commence with our assessment.



Note that point 6 goes up to the A66 junction with Cargo Fleet Lane (North Ormesby) only.

Please let me know if you have any comments or queries.

Looking forward to hearing from you.

Kind regards,

Environmental Consultant | Environment and Sustainability  
BSc (Hons) MSc AMIEnvSc Associate Member IAQM

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 Before you print this email, please consider the environment.

Please note, my working days are Monday to Thursday.

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**From:**  
**Sent:** 09 June 2020 11:15  
**To:**  
**Cc:**  
**Subject:** [External] FW: Proposed development - South Tees Development Corporation

Morning

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 40µg limit yet, but we are seeing an increase each year and its average is generally late 20µg's but we have seen monthly totals in the late 30 µg'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.

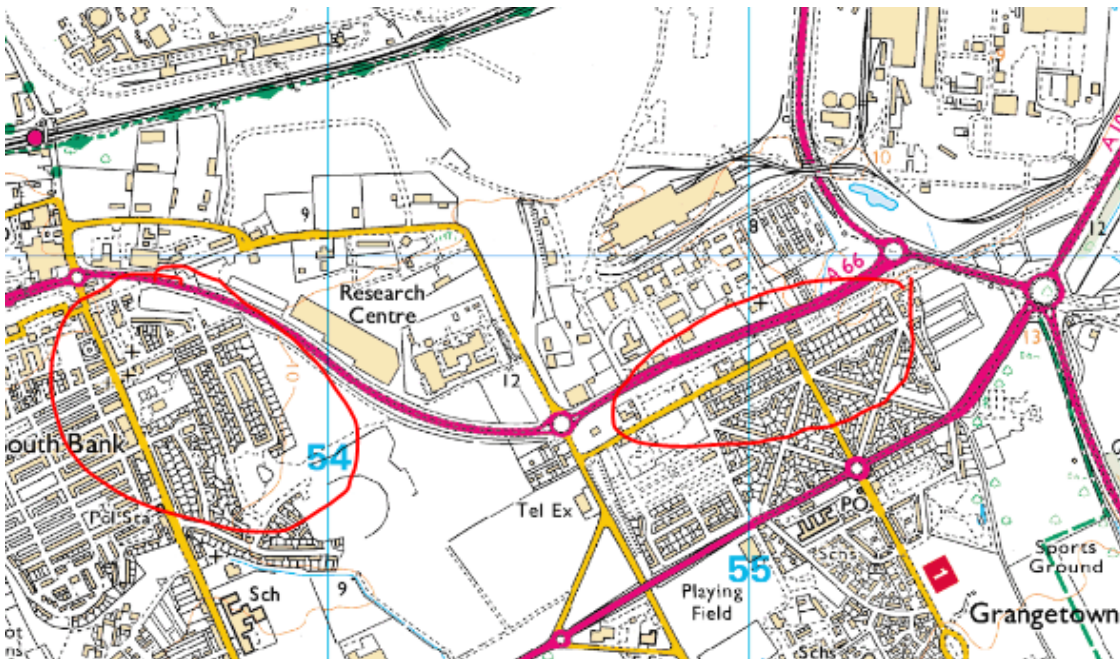
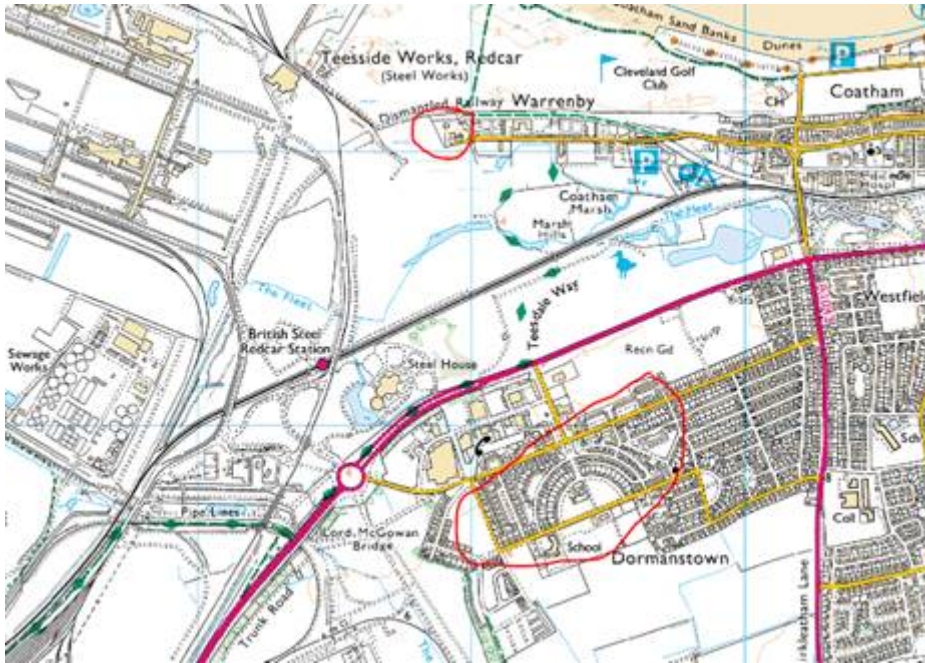
We are not sure of the quality of the Defra noise maps for use, they are very broad scale. Given the ongoing changes in the is it still not possible to undertake any form of noise monitoring?

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

**Contaminated Land Officer  
Redcar & Cleveland Borough Council**

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Follow us on Twitter: [@redcarcleveland](https://twitter.com/redcarcleveland)  
Like us on Facebook: [facebook.com/redcarcleveland](https://facebook.com/redcarcleveland)



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**From:**  
**Sent:** 26 May 2020 14:26  
**To:**  
**Subject:** FW: Proposed development - South Tees Development Corporation

Hi (

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.  
(Planning Strategy Manager) is leading the work on our emerging Environment Strategy and is happy to speak to you.  
Regards

**Contaminated Land Officer  
Redcar & Cleveland Borough Council**

Environmental Protection Team  
Public Health  
Belmont House  
Rectory Lane  
Guisborough  
Yorkshire

TS14 7FD  
Tel: (01287) 612429  
Email:  
Website: <http://www.redcar-cleveland.gov.uk>

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Like us on Facebook: [facebook.com/redcarcleveland](https://facebook.com/redcarcleveland)



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**From:** Environmental Protection  
**Sent:** 22 May 2020 11:21  
**To:**  
**Subject:** FW: Proposed development - South Tees Development Corporation

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**From:**  
**Sent:** 22 May 2020 10:32  
**To:** Environmental Protection <[Environmental.Protection@redcar-cleveland.gov.uk](mailto:Environmental.Protection@redcar-cleveland.gov.uk)>

**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 brought 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:

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:

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:

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 6841 (2005), 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,

Environmental Consultant | Environment and Sustainability

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## **Appendix F4: Modelled Receptor Results**

# Modelled Receptor Results

Table 1: Predicted annual mean NO<sub>2</sub> concentrations at assessed receptors for operational traffic

Receptor ID	Annual mean NO <sub>2</sub> modelling results				
	Base 2019 NO <sub>2</sub> (µg/m <sup>3</sup> )	DM 2028 NO <sub>2</sub> (µg/m <sup>3</sup> )	DS 2028 NO <sub>2</sub> (µg/m <sup>3</sup> )	Change (DS - DM)	Impact descriptor
R1	20.0	20.1	20.6	0.4	Negligible
R2	18.9	19.0	19.2	0.2	Negligible
R3	18.5	18.6	18.8	0.2	Negligible
R4	18.7	18.9	19.2	0.3	Negligible
R5	18.2	18.5	18.9	0.4	Negligible
R6	16.1	16.2	16.3	0.1	Negligible
R7	15.6	15.8	15.9	0.1	Negligible
R8	14.1	14.3	14.3	0.1	Negligible
R9	15.1	15.4	15.5	0.1	Negligible
R10	15.8	16.2	16.4	0.2	Negligible
R11	13.9	14.1	14.2	0.1	Negligible
R12	14.0	14.2	14.3	0.1	Negligible
R13	15.4	15.8	15.9	0.1	Negligible
R14	15.0	15.4	15.5	0.1	Negligible
E1	18.9	18.9	19.0	0.1	Negligible
E2	18.8	18.8	18.8	0.1	Negligible

Note:  
'R' denotes residential receptors  
'E' denotes ecological receptors

Table 2: Predicted annual mean PM<sub>10</sub> concentrations at assessed receptors for operational traffic

Receptor ID	Annual mean PM <sub>10</sub> modelling results				
	Base 2019 PM <sub>10</sub> (µg/m <sup>3</sup> )	DM 2028 PM <sub>10</sub> (µg/m <sup>3</sup> )	DS 2028 PM <sub>10</sub> (µg/m <sup>3</sup> )	Change (DS - DM)	Impact descriptor
R1	12.5	12.5	12.6	0.1	Negligible
R2	12.3	12.3	12.3	< 0.1	Negligible
R3	11.9	11.9	11.9	< 0.1	Negligible
R4	11.9	11.9	11.9	< 0.1	Negligible
R5	11.8	11.9	11.9	0.1	Negligible
R6	11.6	11.6	11.7	< 0.1	Negligible
R7	11.5	11.5	11.6	< 0.1	Negligible
R8	13.2	13.2	13.2	< 0.1	Negligible
R9	13.4	13.4	13.4	< 0.1	Negligible

Receptor ID	Annual mean PM <sub>10</sub> modelling results				
	Base 2019 PM <sub>10</sub> (µg/m <sup>3</sup> )	DM 2028 PM <sub>10</sub> (µg/m <sup>3</sup> )	DS 2028 PM <sub>10</sub> (µg/m <sup>3</sup> )	Change (DS - DM)	Impact descriptor
R10	12.1	12.2	12.2	< 0.1	Negligible
R11	11.8	11.8	11.8	< 0.1	Negligible
R12	11.8	11.8	11.8	< 0.1	Negligible
R13	12.0	12.1	12.1	< 0.1	Negligible
R14	12.0	12.0	12.0	< 0.1	Negligible
E1	10.5	10.5	10.6	< 0.1	Negligible
E2	10.5	10.5	10.5	< 0.1	Negligible

Note:  
'R' denotes residential receptors  
'E' denotes ecological receptors

Table 3: Predicted annual mean PM<sub>2.5</sub> concentrations at assessed receptors for operational traffic

Receptor ID	Annual mean PM <sub>2.5</sub> modelling results				
	Base 2019 PM <sub>2.5</sub> (µg/m <sup>3</sup> )	DM 2028 PM <sub>2.5</sub> (µg/m <sup>3</sup> )	DS 2028 PM <sub>2.5</sub> (µg/m <sup>3</sup> )	Change (DS - DM)	Impact descriptor
R1	7.9	7.9	8.0	< 0.1	Negligible
R2	7.9	7.9	8.0	< 0.1	Negligible
R3	7.6	7.6	7.7	< 0.1	Negligible
R4	7.6	7.7	7.7	< 0.1	Negligible
R5	7.6	7.7	7.7	< 0.1	Negligible
R6	7.5	7.5	7.5	< 0.1	Negligible
R7	7.5	7.5	7.5	< 0.1	Negligible
R8	7.9	7.9	7.9	< 0.1	Negligible
R9	8.0	8.0	8.0	< 0.1	Negligible
R10	7.6	7.6	7.6	< 0.1	Negligible
R11	7.4	7.5	7.5	< 0.1	Negligible
R12	7.4	7.5	7.5	< 0.1	Negligible
R13	7.6	7.6	7.6	< 0.1	Negligible
R14	7.5	7.6	7.6	< 0.1	Negligible
E1	7.0	7.0	7.0	< 0.1	Negligible
E2	7.0	7.0	7.0	< 0.1	Negligible

Note:  
'R' denotes residential receptors  
'E' denotes ecological receptors