Thurrock Flexible Generation Plant

AQ-1: Response to Examination Question 1.1.1

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1. Response to Examination Question 1.1.1.

1.1.1 The document responds to examination Question 1.1.1.

"Please explain how the baseline NO_2 concentrations from the Tilbury 2 Air Quality Assessment were determined and for which year they are for? Please also explain what comparison has been undertaken between recent monitoring data and the concentrations taken from the Tilbury 2 Air Quality Assessment. Do they confirm that a conservative approach is being undertaken?"

1.1.2 The baseline concentrations for receptors 14 to 40 (named R1 to R27) were taken from Table 18.44 of the Tilbury2 Volume 6 Part B ES Appendices 18.A – 18.E. This was for the 2020 Do Something scenario and therefore includes the predicted Tilbury2 Process Contribution (PC).

1.1.3 Section 18.C.8 of the Tilbury2 Volume 6 Part B ES Appendices 18.A – 18.E report outlines how the baseline was derived:

"*The suitability of the use of the unadjusted DEFRA background mapped data for nitrogen dioxide was investigated by comparing the 2016 annual mean concentration measured at Thurrock Council's TK1 urban background CMS with the corresponding mapped DEFRA mapped background concentration for that grid square. This comparison…indicates that the DEFRA mapped estimate substantially underestimates background concentrations in the local area, and thus an uplift factor of 1.66 was applied to all mapped background concentrations of nitrogen dioxide used in the assessment.*

…. To avoid double counting of emissions, the background data used in an assessment must not include the influenced of sources explicitly modelled. For this reason, adjustment of mapped data was undertaken; in this case, the component attributable to main modelled roads i.e. motorways and trunk /A-roads (those included in the model) were removed.

For NO_2, concentrations must then be recalculated using DEFRA's NO_2 Adjustment for NO_x Sector Removal Tool (currently version 5.1, October 2016). This adjustment is undertaken prior to adjusting the DEFRA mapped concentrations for any underestimation (as described above).

Further analysis of the DEFRA mapped 1 km grid square concentrations showed that there was a steep gradient between adjacent grid squares in some areas of the model. To avoid the possibility that background concentrations may not be accurately reflected at receptors located at the confluence of several grid squares, where broadly urban and rural areas meet, the DEFRA mapped concentrations for those receptors located within 200 m of an adjacent grid square were averaged to obtain a more representative background concentration.

The sector removal and averaging across grid squares was undertaken for NO_2, PM_{10} and $PM_{2.5}$ to obtain a background that is more representative of concentrations in the study area. Additionally, the adjustment factor derived from the background map comparison was applied to the averaged, sector removed background NO_2 concentration".

1.1.4 A comparison of recent monitoring data and the concentrations taken from the Tilbury2 Air Quality Assessment is considered in the following sections.

1.1.5 Table 1.1 shows the most recently measured annual-mean NO_2 concentrations for Thurrock Council monitors that are considered to be the most representative of receptors 14 to 40. It also shows, for each monitor, the average concentration measured drawn from the five years up to and including 2018.

Table 1.1: Monitored Annual-Mean NO_2 Concentrations

Monitor ID	Concentration ($\mu g.m^{-3}$)					
	2014	2015	2016	2017	2018	Average
Thurrock Council Monitors						
IBIS	49.66	50.34	49.1	46.4	45.29	48.2
GDSO	28.9	26.59	28.92	27.48	25.31	27.4
WES	30.61	28.54	31.84	29.98	29.48	30.1
TILC	37.86	32.63	39.02	40.2	37.84	37.5
PKSL	28.93	26.79	28.98	27.83	29.35	28.4
TILA	40.23	36.09	40.76	40.92	37.99	39.2
TSR	31.88	27.17	27.39	28.05	29.02	27.6
NAS2	50.57	48.06	55.99	52.76	51.28	51.7
KCNO	34.63	32.69	32.81	33.53	29.36	32.6

1.1.6 The results of the RPS project specific monitoring study, carried out during the first half of 2018 are summarised in Table 1.2.

Table 1.2: Results of RPS Project Specific NO_2 Monitoring Study

Monitoring Location	Monitored Annual-Mean NO_2 Concentration ($\mu g.m^{-3}$)	Data Capture (%)
1	21.2	92
2	19.5	50
3	26.4	50
4	18.3	83
5	18.0	92

Note: Concentrations have been annualised and adjusted for bias in accordance with LAQM.TG16.

1.1.7 Table 1.3 provides a comparison of the baseline NO_2 concentrations used (i.e. Tilbury2 2020 DS scenario) and measured concentrations at the most representative monitoring location. Note that the most representative monitoring location will not in all cases be fully representative of the receptor and this is examined further in paragraph 1.1.10.

Table 1.3: Summary of Baseline Annual-Mean (Long-term) NO_2 Concentrations

Receptor ID	Receptor Name	Baseline Annual-Mean NO_2 Concentration Used in Assessment ($\mu g.m^{-3}$)	Measured Concentrations (Average 2014-18) at Most Representative Monitoring Location ($\mu g.m^{-3}$)	Most Representative Monitoring Location
14	R1	31.1	48.2	Thurrock Monitoring - IBIS
15	R2	27.6	27.4	Thurrock Monitoring - GDSO
16	R3	28.3	30.1	Thurrock Monitoring - WES
17	R4	26.9	37.5	Thurrock Monitoring - TILC
18	R5	32.2	28.4	Thurrock Monitoring - PKSL
19	R6	26.9	28.4	Thurrock Monitoring - PKSL
20	R7	28.1	39.2	Thurrock Monitoring - TILA
21	R8	28.9	39.2	Thurrock Monitoring - TILA
22	R9	36.6	39.2	Thurrock Monitoring - TILA
23	R10	30.6	37.5	Thurrock Monitoring - TILC
24	R11	26.6	27.6	Thurrock Monitoring - TSR
25	R12	26.1	27.6	Thurrock Monitoring - TSR
26	R13	26.4	26.4	Project specific monitoring location 3
27	R14	26.8	26.4	Project specific monitoring location 3
28	R15	23.6	26.4	Project specific monitoring location 3
29	R16	25.8	27.6	Thurrock Monitoring - TSR
30	R17	26.2	27.6	Thurrock Monitoring - TSR
31	R18	24.1	30.1	Thurrock Monitoring - WES
32	R19	31.6	33.3	Thurrock Monitoring - Average of TILE, TL, TK4, TILD
33	R20	23.5	30.1	Thurrock Monitoring - WES

Receptor ID	Receptor Name	Baseline Annual-Mean NO_2 Concentration Used in Assessment ($\mu g.m^{-3}$)	Measured Concentrations (Average 2014-18) at Most Representative Monitoring Location ($\mu g.m^{-3}$)	Most Representative Monitoring Location
34	R21	34.8	30.1	Thurrock Monitoring - WES
35	R22	24.8	51.7	Thurrock Monitoring - NAS2
36	R23	34.1	30.1	Thurrock Monitoring - WES
37	R24	28.5	32.6	Thurrock Monitoring - KCNO
38	R25	33.8	28.4	Thurrock Monitoring - PKSL
39	R26	22.6	32.6	Thurrock Monitoring - KCNO
40	R27	24.5	39.2	Thurrock Monitoring - TILA

1.1.8 The cells shaded in grey show the highest concentration for each receptor, i.e. whether the highest is: the baseline NO_2 concentrations used (Tilbury2 2020 DS scenario); or the 2014-18 average measured concentrations at the most representative monitoring location. For the majority of receptors, the higher concentration is the 2014-18 average measured concentration at the most representative monitoring location. This is unsurprising, because the baseline annual-mean NO_2 Concentration used in the assessment were based on the Tilbury2 2020 DS scenario, i.e. predicted concentrations in 2020 rather than measured concentrations between 2014 to 2018. Concentrations are expected to decrease as more efficient vehicles become a larger proportion of the fleet. Therefore, concentrations in 2020 are expected to be lower than in 2018.

1.1.9 Furthermore, the most representative monitoring location will not in all cases be fully representative of the receptor and measured concentrations at some of the most representative monitoring locations are likely to overestimate the true concentrations at the façades of the sensitive receptors. This is because most of the diffusion-tube monitors are positioned on lampposts and other street furniture that will be closer to roads than the façades of sensitive receptors.

1.1.10 Nevertheless, in the following two subsections of this response, the long-term and short-term impacts, respectively, have been assessed at receptors 14 to 40 using the measured concentrations at the most representative monitoring location as the AC. This provides a sensitivity test on the use of the baseline NO_2 concentrations from the Tilbury 2 Air Quality Assessment.

1.2 Long-term Impacts

1.2.1 The annual-mean concentrations are shown in Table 1.4.

Table 1.4: Long-term Cumulative Predicted NO_2 Concentrations (µg.m^{-3}) at Sensitive Receptors.

Receptor ID	Receptor Name	AC (µg.m^{-3})*	Thurrock Flexible Generation Plant PC (µg.m^{-3})	PC as % of AQAL	Tilbury2 PC (µg.m^{-3})*	Lower Thames Crossing PC (µg.m^{-3})	Tilbury Green Power PC (µg.m^{-3})	Tilbury Peak Reserve PC (µg.m^{-3})	Thames Enterprise Park PC (µg.m^{-3})	Gateway Energy Centre PC (µg.m^{-3})	Purfleet Centre Regeneration PC (µg.m^{-3})	Cumulative PEC (µg.m^{-3})	Cumulative PEC as % of AQAL	Impact Descriptor
14	R1	**48.2**	0.2	0	0.1	-	0.09	0.04	0.01	0.17	0.06	**48.8**	**122**	Negligible
15	R2	27.4	0.1	0	<0.05	-	0.07	0.03	0.01	0.17	0.04	27.9	70	Negligible
16	R3	30.1	0.2	1	0.4	-	0.14	0.06	0.01	0.23	0.01	31.2	78	Negligible
17	R4	37.5	0.3	1	0.5	-	0.31	0.13	0.01	0.27	0.01	39.1	98	Slight
18	R5	28.4	0.3	1	0.3	-	0.29	0.13	0.01	0.28	0.01	29.7	74	Negligible
19	R6	28.4	0.5	1	0.1	2.1	0.36	0.11	0.01	0.31	0.01	31.8	80	Negligible
20	R7	39.2	0.4	1	0.8	0.9	0.53	0.17	0.01	0.25	0.01	**42.2**	**106**	Moderate
21	R8	39.2	0.4	1	0.8	0.1	1.06	0.14	0.01	0.15	0.01	**41.9**	**105**	Moderate
22	R9	39.2	0.9	2	1.9	-	0.41	0.21	0.01	0.14	0.01	**42.8**	**107**	Moderate
23	R10	37.5	1.2	3	4.4	-	0.29	0.41	0.01	0.13	0.01	**43.9**	**110**	Substantial
24	R11	27.6	1.1	3	1.7	-	0.24	0.79	0.01	0.13	<0.005	31.6	79	Slight
25	R12	27.6	1.2	3	1.7	-	0.24	0.92	0.01	0.13	<0.005	31.7	79	Slight
26	R13	26.4	2.4	6	3.0	-	0.26	1.14	0.01	0.14	<0.005	33.4	84	Moderate
27	R14	26.4	2.0	5	3.8	-	0.26	1.14	0.01	0.14	<0.005	33.8	84	Slight
28	R15	26.4	3.6	9	0.6	-	0.25	1.50	0.01	0.14	<0.005	32.6	81	Moderate
29	R16	27.6	1.4	4	1.8	-	0.25	1.24	0.01	0.13	<0.005	32.4	81	Slight
30	R17	27.6	1.3	3	2.1	-	0.24	1.18	0.01	0.13	<0.005	32.5	81	Slight
31	R18	30.1	0.3	1	0.2	-	0.16	0.08	0.01	0.24	0.01	31.1	78	Negligible
32	R19	33.3	1.3	3	0.9	-	0.32	0.34	0.01	0.13	0.01	36.3	91	Slight
33	R20	30.1	0.2	1	0.1	-	0.14	0.05	0.01	0.22	0.02	30.8	77	Negligible
34	R21	30.1	0.2	0	0.5	-	0.12	0.05	0.01	0.20	0.02	31.2	78	Negligible
35	R22	**51.7**	0.2	0	<0.05	-	0.08	0.04	0.01	0.16	0.08	**52.3**	**131**	Negligible
36	R23	30.1	0.1	0	0.1	-	0.07	0.03	0.01	0.15	0.04	30.6	77	Negligible

Receptor ID	Receptor Name	AC (µg.m^{-3})*	Thurrock Flexible Generation Plant PC (µg.m^{-3})	PC as % of AQAL	Tilbury2 PC (µg.m^{-3})*	Lower Thames Crossing PC (µg.m^{-3})	Tilbury Green Power PC (µg.m^{-3})	Tilbury Peak Reserve PC (µg.m^{-3})	Thames Enterprise Park PC (µg.m^{-3})	Gateway Energy Centre PC (µg.m^{-3})	Purfleet Centre Regeneration PC (µg.m^{-3})	Cumulative PEC (µg.m^{-3})	Cumulative PEC as % of AQAL	Impact Descriptor
37	R24	32.6	0.2	0	0.1	-	0.08	0.03	0.01	0.12	0.02	33.1	83	Negligible
38	R25	28.4	0.4	1	0.1	2.0	0.23	0.09	0.02	0.34	0.01	31.6	79	Negligible
39	R26	32.6	0.2	0	<0.05	-	0.07	0.03	0.01	0.11	0.01	33.0	82	Negligible
40	R27	39.2	0.4	1	0.3	0.9	0.52	0.17	0.01	0.25	0.01	**41.7**	**104**	Moderate

Receptors in bold exceed the AQAL. AC = Ambient or background concentration

1.2.2 Predicted annual-mean NO_2 concentrations at the facades of sensitive receptors are below the AQS objective for NO_2 for all but seven of the 27 receptors modelled. The impact at a receptor depends not only on the absolute concentration but also on the magnitude of change and when both are considered the impact descriptors at the receptors range from 'negligible' to 'substantial adverse'.

1.2.3 There are seven receptors where the Environmental Protection UK (EPUK) & Institute of Air Quality Management (IAQM) (EPUK & IAQM, 2017) impact descriptor is 'moderate adverse' or 'substantial adverse'. The EPUK&IAQM guidance requires professional judgement to be applied to determine whether the overall impact has a significant effect.

1.2.4 In applying this professional judgement, consideration has been given to the main intended application of the EPUK&IAQM significance criteria used in the original assessment, which are more conservative than the Environment Agency's online guidance (DEFRA and EA, 2016). Paragraph 1.4 and 1.5 of the EPUK&IAQM guidance states

"1.4 This document has been developed for professionals operating within the planning system. It provides them with a means of reaching sound decisions, having regard to the air quality implications of development proposals. It also is anticipated that developers will be better able to understand what will make a proposal more likely to succeed. This guidance, of itself, can have no formal or legal status and is not intended to replace other guidance that does have this status. For example, industrial development regulated by the Environment Agency, and requiring an Environmental Permit, is subject to the EA's risk assessment methodology1, while for major new road schemes, Highways England has prepared a series of advice notes on assessing impacts and risk of non-compliance with limit values.

1.5 This guidance document is particularly applicable to assessing the effect of changes in exposure of members of the public resulting from residential and mixed-use developments, especially those within urban areas where air quality is poorer. It will also be relevant to any other forms of development where a proposal could affect local air quality and for which no other guidance exists. This guidance is not intended to be applied to the assessment of air quality impacts on designated nature conservation sites".

1.2.5 The EA assessment criteria, given in its online guidance, are as follows:

"To screen out a PC for any substance so that you don't need to do any further assessment of it, the PC must meet both of the following criteria:

- *the short-term PC is less than 10% of the short-term environmental standard*
- *the long-term PC is less than 1% of the long-term environmental standard*

If you meet both of these criteria you don't need to do any further assessment of the substance.

If you don't meet them, you need to carry out a second stage of screening to determine the impact of the PEC."

1.2.6 The on-line EA guidance continues by stating that:

"You don't need to take further action if your assessment has shown that both of the following apply:

- *Your proposed emissions comply with BAT associated emission levels (AELs) or the equivalent requirements where there is not BAT AEL*
- *… the resulting PECs won't exceed environmental standards*".

1.2.7 On that basis:

- The impacts are not considered significant if the short-term PC is less than 10 % of the short-term AQAL (Referred to as an Environmental Assessment Level (EAL) by the EA);
- The impacts are not considered significant if the long-term PC is less than 1 % of the long-term AQAL; or
- The impacts are not considered significant if the PEC is below the AQAL.

1.2.8 Using the criteria in the EA's online guidance there are only two receptors where both the PC exceeds 1% of the AQAL and the PEC exceeds the AQAL. At all other receptors the impacts would be screened out as insignificant.

1.2.9 At receptors 22 and 23, the Thurrock FGP PCs are 2% and 3% of the AQAL respectively and the cumulative PEC is greater than the AQAL, hence the impacts at those receptors are potentially significant.

1.2.10 Further analysis of the monitoring locations used to inform the baseline concentrations at receptors 22 and 23 indicates that the measured concentrations are likely to be conservative. This is because in both cases the monitors are located closer to the roads than are the façades of those receptors.

1.2.11 A correction can be made for this difference, using the DEFRA calculation tool for estimating the annual mean NO_2 concentration at one distance from a road, using measurements made at a different distance from the same road.

1.2.12 This DEFRA *Drop off with distance tool* has been used to calculate baseline concentrations that are more representative of levels at the building facades of receptors 22 and 23. The DEFRA tool requires inputs.

1.2.13 For Step 1 the distance was taken from the Thurrock Council 2019 Annual Status Report [Thurrock Council, 2019]. For Step2, the distance from the kerb to the facades of the receptor has been taken from google maps and the annual mean background NO_2 concentration is the DEFRA mapped background concentration estimate for the grid square that the monitor is located (Step 3). The measured annual mean NO_2 concentration for Step 4 is the five year average used as the baseline in Table 1.4.

Enter data into the pink cells

Step 1	How far from the KERB was your measurement made (in metres)?	2.5	metres
Step 2	How far from the KERB is your receptor (in metres)?	6	metres
Step 3	What is the local annual mean background NO_2 concentration (in µg/m^3)?	25.9	µg/m^3
Step 4	What is your measured annual mean NO_2 concentration (in µg/m^3)?	39	µg/m^3
Result	The predicted annual mean NO_2 concentration (in µg/m^3) at your receptor	36.2	µg/m^3

Figure 1.1: Drop off with distance calculator – Receptor 22 (R9)

Enter data into the pink cells

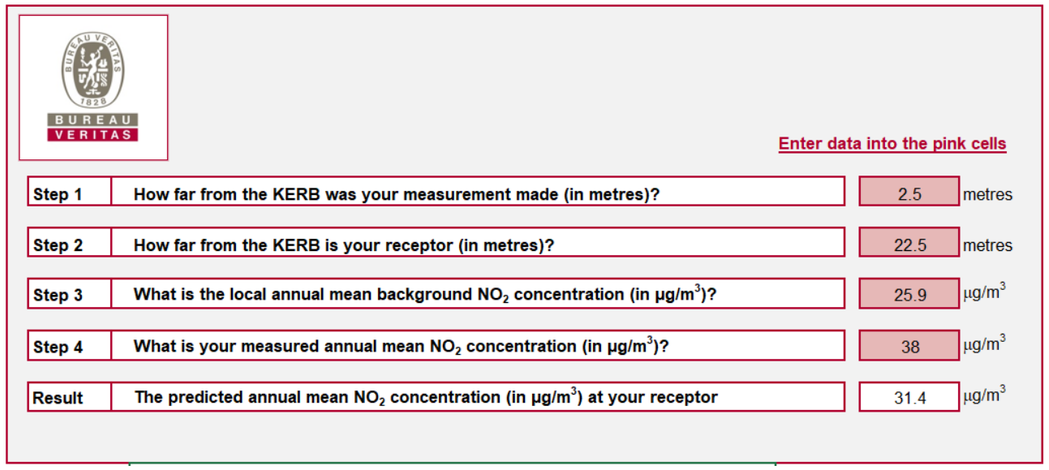
Step 1	How far from the KERB was your measurement made (in metres)?	2.5	metres
Step 2	How far from the KERB is your receptor (in metres)?	39	metres
Step 3	What is the local annual mean background NO_2 concentration (in µg/m^3)?	25.9	µg/m^3
Step 4	What is your measured annual mean NO_2 concentration (in µg/m^3)?	38	µg/m^3
Result	The predicted annual mean NO_2 concentration (in µg/m^3) at your receptor	29.8	µg/m^3

Warning: your receptor is more than 20m further from the kerb than your monitor, treat result with caution

Figure 1.2: Drop off with distance calculator – Receptor 23 (R10)

1.2.14 The DEFRA tool predicts the annual mean NO_2 concentrations at the façades of the sensitive receptors 22 and 23, are 36.2 µg.m^{-3} and 29.8 µg.m^{-3}, respectively.

1.2.15 As shown in Figure 1.2, the calculator warns that as the receptor is more than 20 m further from the kerb than the monitor the result should be treated with caution. If it is assumed that the receptor is 20 m further from the kerb than the monitor, the predicted concentration is 31.4 µg.m^{-3}.as shown in Figure 1.3.



Enter data into the pink cells

Step 1	How far from the KERB was your measurement made (in metres)?	2.5	metres
Step 2	How far from the KERB is your receptor (in metres)?	22.5	metres
Step 3	What is the local annual mean background NO_2 concentration (in µg/m^3)?	25.9	µg/m^3
Step 4	What is your measured annual mean NO_2 concentration (in µg/m^3)?	38	µg/m^3
Result	The predicted annual mean NO_2 concentration (in µg/m^3) at your receptor	31.4	µg/m^3

Figure 1.3: Drop off with distance calculator – Receptor 23 (R10)

1.2.16 Table 1.5 outlines the cumulative PEC using the results of the DEFRA tool to adjust concentrations for distance from the road. Table 1.5 shows that the cumulative PECs are below the AQAL and the impacts would not be considered to be significant.

1.3 Short-term Impacts

1.3.1 The 99.79th percentile hourly-mean concentrations are shown in Table 1.6.

1.3.2 For all receptors, the PEC is below the AQAL of 200 µg.m^{-3}; the maximum PEC is 69% of the AQAL. This demonstrates that there is considerable headroom between the short-term AQAL and the PEC and the impacts are not considered to be significant.

1.4 Summary

1.4.1 This document presents a sensitivity test for the assessment of air quality effects of the proposed development, using an alternative baseline. It should be noted that both the assessment in the ES and this sensitivity test incorporate several conservative assumptions, whether that is in the baseline concentration used or the significance criteria used. Both assessments have concluded that the resulting air quality effect of the proposed Thurrock Flexible Generation Plant is ‘not significant’ overall.

Table 1.5: Long-term Cumulative Predicted NO_2 Concentrations ($\mu g.m^{-3}$) at Sensitive Receptors.

Receptor ID	Receptor Name	AC ($\mu g.m^{-3}$)*	Thurrock Flexible Generation Plant PC ($\mu g.m^{-3}$)	PC as % of AQAL	Tilbury2 PC ($\mu g.m^{-3}$)*	Lower Thames Crossing PC ($\mu g.m^{-3}$)	Tilbury Green Power PC ($\mu g.m^{-3}$)	Tilbury Peak Reserve PC ($\mu g.m^{-3}$)	Thames Enterprise Park PC ($\mu g.m^{-3}$)	Gateway Energy Centre PC ($\mu g.m^{-3}$)	Purfleet Centre Regeneration PC ($\mu g.m^{-3}$)	Cumulative PEC ($\mu g.m^{-3}$)	Cumulative PEC as % of AQAL	Impact Descriptor
22	R9	36.2	0.9	2	1.9	-	0.41	0.21	0.01	0.14	0.01	39.8	100	Moderate
23	R10	29.8	1.2	3	4.4	-	0.29	0.41	0.01	0.13	0.01	36.2	91	Slight
23	R10	31.4	1.2	3	4.4	-	0.29	0.41	0.01	0.13	0.01	37.8	95	Moderate

Table 1.6: Short-term Cumulative Predicted NO_2 Concentrations ($\mu g.m^{-3}$) at Sensitive Receptors.

Receptor ID	Receptor Name	AC ($\mu g.m^{-3}$)*	PC ($\mu g.m^{-3}$)	PC as % of AQAL	Tilbury2 PC ($\mu g.m^{-3}$)*	Lower Thames Crossing PC ($\mu g.m^{-3}$)	Tilbury Green Power PC ($\mu g.m^{-3}$)	Tilbury Peak Reserve PC ($\mu g.m^{-3}$)	Thames Enterprise Park PC ($\mu g.m^{-3}$)	Gateway Energy Centre PC ($\mu g.m^{-3}$)	Purfleet Centre Regeneration PC ($\mu g.m^{-3}$)	Cumulative AC ($\mu g.m^{-3}$)	Cumulative PEC ($\mu g.m^{-3}$)	Cumulative PEC as % of AQAL	Impact Descriptor
14	R1	96.3	10.9	5	0.1	-	2.93	1.82	0.17	2.69	0.43	70.2	115.4	58	Negligible
15	R2	54.9	10.4	5	0.0	-	2.08	1.48	0.20	2.62	0.38	62.0	72.0	36	Negligible
16	R3	60.2	18.1	9	0.4	-	2.74	2.16	0.24	3.49	0.20	65.4	87.5	44	Negligible
17	R4	75.0	17.3	9	0.5	-	3.22	3.48	0.27	4.40	0.16	65.3	104.3	52	Negligible
18	R5	56.8	16.2	8	0.3	-	3.03	3.34	0.27	4.25	0.16	75.5	84.3	42	Negligible
19	R6	56.8	17.8	9	0.1	2.1	3.23	3.50	0.28	4.64	0.14	69.8	90.7	45	Negligible
20	R7	78.4	18.8	9	0.8	0.9	3.87	4.23	0.27	4.68	0.15	71.2	113.0	56	Negligible
21	R8	78.4	19.1	10	0.8	0.1	8.81	4.50	0.22	2.89	0.13	74.5	115.1	58	Negligible
22	R9	78.4	24.1	12	1.9	-	7.01	5.04	0.19	3.04	0.16	88.6	119.9	60	Slight
23	R10	75.0	28.5	14	4.4	-	5.45	7.06	0.18	3.02	0.15	77.1	123.8	62	Slight
24	R11	55.1	32.4	16	1.7	-	4.85	9.31	0.18	3.03	0.14	70.7	106.7	53	Slight
25	R12	55.1	32.4	16	1.7	-	4.84	10.12	0.17	3.03	0.14	70.5	107.5	54	Slight
26	R13	52.9	47.2	24	3.0	-	4.93	19.32	0.19	3.23	0.13	80.6	130.9	65	Moderate
27	R14	52.9	43.5	22	3.8	-	4.78	18.07	0.18	3.21	0.13	80.0	126.6	63	Moderate
28	R15	52.9	56.4	28	0.6	-	5.03	19.13	0.20	3.39	0.12	75.1	137.8	69	Moderate
29	R16	55.1	36.6	18	1.8	-	5.16	13.99	0.18	3.13	0.14	74.2	116.1	58	Slight

Receptor ID	Receptor Name	AC (µg.m^{-3})*	PC (µg.m^{-3})	PC as % of AQAL	Tilbury2 PC (µg.m^{-3})*	Lower Thames Crossing PC (µg.m^{-3})	Tilbury Green Power PC (µg.m^{-3})	Tilbury Peak Reserve PC (µg.m^{-3})	Thames Enterprise Park PC (µg.m^{-3})	Gateway Energy Centre PC (µg.m^{-3})	Purfleet Centre Regeneration PC (µg.m^{-3})	Cumulative AC (µg.m^{-3})	Cumulative PEC (µg.m^{-3})	Cumulative PEC as % of AQAL	Impact Descriptor
30	R17	55.1	35.4	18	2.1	-	4.86	11.92	0.17	3.10	0.14	72.6	112.8	56	Slight
31	R18	60.2	18.7	9	0.2	-	2.85	2.34	0.25	3.74	0.18	57.6	88.4	44	Negligible
32	R19	66.7	28.9	14	0.9	-	5.62	6.00	0.18	2.78	0.15	77.9	111.2	56	Slight
33	R20	60.2	12.5	6	0.1	-	3.71	2.07	0.22	3.46	0.22	56.7	82.4	41	Negligible
34	R21	60.2	12.3	6	0.5	-	3.61	2.12	0.21	3.38	0.23	79.1	82.5	41	Negligible
35	R22	103.5	10.7	5	<0.05	-	2.70	1.68	0.17	2.63	0.58	57.4	121.9	61	Negligible
36	R23	60.2	9.7	5	0.1	-	1.98	1.34	0.17	2.35	0.58	74.6	76.4	38	Negligible
37	R24	65.2	12.2	6	0.1	-	1.86	1.17	0.20	2.58	0.29	63.1	83.6	42	Negligible
38	R25	56.8	12.9	6	0.1	2.0	2.38	2.43	0.39	5.54	0.11	82.5	84.6	42	Negligible
39	R26	65.2	12.6	6	<0.05	-	1.67	1.16	0.19	2.57	0.25	51.0	83.6	42	Negligible
40	R27	78.4	17.9	9	0.3	0.9	3.67	4.16	0.27	4.75	0.16	63.8	111.4	56	Negligible

* The short-term AC is twice the long-term AC.

2. References

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