RE: Northampton Gateway Rail Freight Interchange (TR050006)
Interested Party reference 20010782

Dear Sirs

In response to the request from the Secretary of State for comments from Interested Parties I submit the attached Excel spreadsheet for your review.

As you will see, the spreadsheet simply applies standard methods of calculating the percentage increase in harmful levels of NO2 in order to verify the Applicant's calculations of the "Combined % Change of AQS" and reflect on the use of the dismissive assessment "negligible". The spreadsheet sets out the verified results from a sample of 15 of the 40 receptors listed by the Applicant at Collingtree, Wootton and the proposed Roade Bypass.

In brief, the spreadsheet seeks to validate a sample of the data which the Applicant includes in their response to this question posed to them by the Secretary of State:

"Please could the Applicant clarify how on-site construction plant and vehicle emissions have been assessed as well as off-site construction traffic to reach the conclusion at Appendix 9.11 that the construction of the Proposed Development is expected to have an overall Negligible impact."

In their response, the Applicant relies heavily on the measure of percentage increase in the level of harmful NO2 (i.e. reduced Air Quality) at various points to assess the impact of their proposed development. They conclude that because the percentages changes are small the overall impact can be regarded as negligible.

The methodology used by the Applicant to calculate percentage change in levels of NO2 has produced inaccurate results; the spreadsheet shows that in every example except one they have understated the percentage change. For example, Receptor RCP1 has a "Without development" NO2 reading of 8.1 which will increase by 0.3 with on-site construction. The Applicant reports this as an increase of 0.8% but an accurate calculation would show an increase in the level of harmful NO2 of 3.7%.

Do these inaccuracies matter? As an ordinary citizen with access only to my own resources I am struck that so many incorrect calculations should be presented as evidence to support such a damaging development. Worse than this, the entire response by the Applicant seeks to justify their assessment that the development can be said to have "negligible" impact on Air Quality in this area (see Paragraph 4.5 and 4.18 of their response). The step-by-step, piece-by-piece use of data and assertions so artfully employed in support of this assessment obscures the simple fact that, if the DCO is granted, an industrial development will be built on over 500 acres of currently open countryside. In that wider context it is impossible to think of the impact of this development as "negligible".

I raise these comments to encourage the Secretary of State to be sceptical about an application which contains such inaccurate calculations. If the calculations are as inaccurate as they appear to be, what else in the application can really be considered reliable?

Thank you for the opportunity to comment.

Phillip Hayward

	Data from Northampton Gateway Table 1 Predicted NO2 annual mean contribution										Checked using value A as denominator for % calculation						Checked using value B or C as denominator for % calculation				
Name	Without	With construction (0n-site only)	With Construction (on and off-site)	With (B) - Without (A)	% Change of AQS	Significance	With (C) - Without (A)	Combined % Change of AQS	Combined significance		With (B) - Without (A)	% Change of AQS	With (C) - Without (A)	Combined % Change of AQS	Applicant's Stated impact % is		With (B) - Without (A)	% Change of AQS	With (C) - Without (A)	Combined % Change of AQS	Appplicant's Stated impact % is
	A	B	C	B-A	B-A	B-A	C-A	C-A	C-A		B-A	B-A %	C-A	C-A %			B-A	B-A %	C-A	C-A %	
								Collingtree receptors													
C1	34.8	35.0	35.1	0.2	0.50%	Negligible	0.3	**0.70%**	Negligible		0.2	0.57%	0.3	**0.86%**	Understated		0.2	0.57%	0.3	0.85%	Inaccurate
C2	33.5	33.7	33.7	0.2	0.40%	Negligible	0.2	**0.60%**	Negligible		0.2	0.60%	0.2	**0.60%**	Overstated		0.2	0.59%	0.2	0.59%	Inaccurate
C3	32.1	32.3	32.3	0.2	0.40%	Negligible	0.2	**0.60%**	Negligible		0.2	0.62%	0.2	**0.62%**	Understated		0.2	0.62%	0.2	0.62%	Inaccurate
C4	30.8	30.9	31.0	0.1	0.40%	Negligible	0.2	**0.60%**	Negligible		0.1	0.32%	0.2	**0.65%**	Understated		0.1	0.32%	0.2	0.65%	Inaccurate
C5	25.0	25.2	25.2	0.1	0.30%	Negligible	0.2	**0.40%**	Negligible		0.2	0.80%	0.2	**0.80%**	Understated		0.2	0.79%	0.2	0.79%	Inaccurate
C6	27.8	27.9	28.0	0.1	0.30%	Negligible	0.2	**0.50%**	Negligible		0.1	0.36%	0.2	**0.72%**	Understated		0.1	0.36%	0.2	0.71%	Inaccurate
C7	26.3	26.4	26.5	0.1	0.30%	Negligible	0.2	**0.50%**	Negligible		0.1	0.38%	0.2	**0.76%**	Understated		0.1	0.38%	0.2	0.75%	Inaccurate
								Wootton receptors													
W1	17.9	17.9	18.0	0	0.10%	Negligible	0.1	**0.30%**	Negligible		0.0	0.00%	0.1	**0.56%**	Understated		0.0	0.00%	0.1	0.56%	Inaccurate
W2	23.4	23.4	23.6	0	0.10%	Negligible	0.2	**0.40%**	Negligible		0.0	0.00%	0.2	**0.85%**	Understated		0.0	0.00%	0.2	0.85%	Inaccurate
W3	20.0	20.0	20.1	0	0.10%	Negligible	0.1	**0.20%**	Negligible		0.0	0.00%	0.1	**0.50%**	Understated		0.0	0.00%	0.1	0.50%	Inaccurate
								Roade Bypass receptors													
RCP1	8.1	8.4		0.3	0.80%	Negligible		**0.80%**			0.3	3.70%		**3.70%**	Understated		0.3	3.57%		3.57%	Inaccurate
RCP2	8.1	8.3		0.2	0.40%	Negligible		**0.40%**			0.2	2.47%		**2.47%**	Understated		0.2	2.41%		2.41%	Inaccurate
RCP3	9.2	9.2		0.1	0.20%	Negligible		**0.20%**			0.1	1.09%		**1.09%**	Understated		0.1	1.09%		1.09%	Inaccurate
RCP4	9.1	9.4		0.3	0.80%	Negligible		**0.80%**			0.3	3.30%		**3.30%**	Understated		0.3	3.19%		3.19%	Inaccurate
RCP5	9.1	9.3		0.3	0.60%	Negligible		**0.60%**			0.3	3.30%		**3.30%**	Understated		0.3	3.23%		3.23%	Inaccurate

Source data in columns A to J is the Northampton Gateway letter to PINS dated 5th September 2019

Data in columns headed "Checked using....." are calculations based on the source data