

IN PARLIAMENT
HOUSE OF COMMONS
SESSION 2013-14

HIGH SPEED RAIL (LONDON – WEST MIDLANDS) BILL

Against – on Merits – Praying to be heard By Counsel. &c.

To the Honourable the Commons of the United Kingdom of Great Britain and Northern Ireland in Parliament assembled.

THE HUMBLE PETITION of PETER JOHN DELOW.

SHEWETH as follows:-

- 1 A Bill (hereinafter referred to as “the Bill”) has been introduced and is now pending in your honourable House intituled “A Bill to make provision for a railway between Euston in London and a junction with the West Coast Main Line at Handsacre in Staffordshire, with a spur from Old Oak Common in the London Borough of Hammersmith and Fulham to a junction with the Channel Tunnel Rail Link at York Way in the London Borough of Islington and a spur from Water Orton in Warwickshire to Curzon Street in Birmingham; and for connected purposes.”
- 2 The Bill is presented by Mr Secretary McLoughlin, supported by The Prime Minister, The Deputy Prime Minister, Mr Chancellor of the Exchequer, Secretary Theresa May, Secretary Vince Cable, Secretary Iain Duncan Smith, Secretary Eric Pickles, Secretary Owen Paterson, Secretary Edward Davey, and Mr Robert Goodwill.
- 3 Clauses 1 to 36 set out the Bill’s objectives in relation to the construction and operation of the railway mentioned in paragraph 1 above. They include provision for the construction of works, highways and road traffic matters, the compulsory acquisition of land and other provisions relating to the use of land, planning permission, heritage issues, trees and noise. They include clauses which would disapply and modify various enactments relating to special categories of land including burial grounds, consecrated land, commons and open spaces, and other matters, including overhead lines, water, building regulations and party walls, street works and the use of lorries.
- 4 Clauses 37 to 42 of the Bill deal with the regulatory regime for the railway.

- 5 Clauses 43 to 65 of the Bill set out a number of miscellaneous and general provisions, including provision for the appointment of a nominated undertaker ("the Nominated Undertaker") to exercise the powers under the Bill, transfer schemes, provisions relating to statutory undertakers and the Crown, provision about the compulsory acquisition of land for regeneration, reinstatement works and provision about further high speed railway works. Provision is also made about the application of Environmental Impact Assessment Regulations.
- 6 The works proposed to be authorised by the Bill ("the Authorised Works") are specified in clauses 1 and 2 of and Schedule 1 to the Bill. They consist of scheduled works, which are described in Schedule 1 to the Bill and other works, which are described in clause 2 of the Bill.
- 7 Your Petitioner is the freehold owner of a residential property located in Pinehurst Cubbington ("your petitioner's property"), where your Petitioner and his wife have resided for 29 years. Your petitioner's property is approximately 650 metres from the line of the route planned for the Authorised Works, and is not required to be demolished for the purposes of constructing those works. However, the Promoter has identified a cluster of six dwellings in Pinehurst, of which your petitioner's property is one, as a residential receptor for operational airborne noise. Your Petitioner is concerned that the calculation of the level of noise falling on this receptor, and the impacts that it will have, have not been appropriately assessed by the Promoter.
- 8 Your Petitioner and his rights, interests and well being are injuriously affected by the Bill, to which your Petitioner objects for reasons amongst others, hereinafter appearing.
- 9 The Promoter has allocated the identity ID213490 to the noise receptor representing the cluster of six dwellings in the northern part of Pinehurst, and this receptor is marked as such on map SV-04-046 in Volume 5 of the Phase 1 Environmental Statement Map Book *Sound, noise and vibration - Country North*.
- 10 The Promoter's estimate of the overall extent of the airborne noise pollution that will affect the general area where your Petitioner lives is indicated on map SV-05-046 in Volume 2 Map Book CFA17 of the Phase 1 Environmental Statement. This map depicts, shaded grey, the area that the Promoter estimates will experience airborne noise levels from HS2 operations at night in the range 40dB to 55dB. The area that the promoter predicts will suffer night noise levels above 55dB is shaded pink. The Promoter has indicated in Panel A at the top of the map that areas that are not shaded will experience noise levels that are below 40dB. All of these noise levels are expressed as A-weighted equivalent continuous sound levels relative to the reference level and calculated over the time period 23:00 to 07:00 (dB L_{pAeq,23:00-07:00}).

- 11 Your petitioner's property is located well outside the areas that are shown shaded on map SV-05-046, approximately twice as far from the line of the track as the edge of the grey-shaded area. The impression given by this map therefore is that the night airborne noise levels from HS2 operations should be well below 40dB.
- 12 The anticipated night airborne noise at receptor ID213490 has been calculated by the Promoter, and the result of this calculation is displayed in table 1 in Appendix SV-004-017 within the Volume 5 Technical Appendices of the Phase 1 Environmental Statement. In contradiction to the impression given by map SV-05-046, table 1 yields an estimated night airborne noise level from HS2 operations of 43dB.
- 13 It is your Petitioner's view that the discrepancy in night noise level prediction between the map and the table, which is also reflected to a lesser extent in the day level, is indicative that the noise maps that have been provided by the Promoter in the Environmental Statement are insufficiently accurate. The impression given in these maps that noise "footprints" are largely contiguous is, in your Petitioner's experience, incorrect. Drawn more accurately such maps would exhibit "holes" within the shaded area, indicating areas of lower noise levels, and "islands" of higher noise level outside the main shaded area, due to factors such as undulations in the terrain and local screening effects. It would appear probable that your petitioner's property is located within one such island not shown on map SV-05-046.
- 14 In the absence of any significant contribution from baseline noise levels arising from sources other than HS2, the Promoter considers a 50dB daytime level of airborne noise due to HS2 operations as the trigger point for an adverse effect. This corresponds to the level that the World Health Organisation (WHO) considers should not be exceeded in order to "protect the majority of people from being moderately annoyed" by the noise. However, the WHO also points out that "most countries in Europe have adopted 40dB L_{Aeq} as the maximum allowable [daytime] level for new developments" and recommends that "the lower value [of 40 dB] should be considered the maximum allowable sound pressure level for all new developments whenever feasible". It is clear that the Promoter has ignored this advice and furthermore does not feel constrained to employ mitigation that is sufficient to secure that even the 50dB daytime level is not exceeded at residential receptors.
- 15 Whilst the WHO concurs with the use of an equivalent continuous sound level parameter "to measure continuing sounds such as road traffic noise, many types of industrial noises and noise from ventilation systems in buildings" it expresses reservations about using such a parameter to characterise the impact when there are "distinct events to the noise such as with aircraft or railway noise". For the latter types of noise, of which HS2

noise will surely be an example, the WHO recommends that “measures of the individual events should be obtained”. Table 1 in Appendix SV-004-017 provides such a measure for all receptors, including ID213490. This measure is the maximum noise level of a single train pass-by (L_{pAFmax}). Two values of L_{pAFmax} have been calculated for each receptor: for “the HS2 mitigated train”, and for “the TSI compliant train”. In both cases only the raw figure is presented, with no explanation of the impact that the level calculated will have in terms of annoyance response or sleep disturbance. In the absence of such interpretation by the Promoter, the raw level information is of little use to affected residents, including your Petitioner.

- 16 The WHO also comments that the annoyance response to the same level of noise varies with the time of day. The WHO reports that, for the same annoyance response, “sound pressure levels during the evening and night should be 5–10 dB lower than during the day”. By using the level equivalent continuous sound level ($L_{pAeq,07:00-23:00}$), the Promoter has ignored this effect. In this respect, the use instead of the parameter L_{den} (the day-evening-night equivalent level) would have reflected this variance in impact over the whole day, since the parameter introduces weightings of 5dB on evening noise and 10dB on night noise. Use of this parameter would have the additional advantage of compliance with the aim of the EU Environmental Noise Directive (2002/49/EC) to employ the L_{den} parameter as a “harmonised noise indicator” across the European Union.
- 17 Table 1 in Appendix SV-004-017 also provides an assessment of the day and night baseline noise levels that will be experienced at receptor ID213490 at the year scheduled for the opening of HS2 Phase 1, but on the basis that HS2 is not built (identified as the “do nothing opening year baseline” scenario). These levels are 59dB day and 47dB night. The table compares these levels with those that the Promoter predicts will result in the opening year if HS2 is running; these are also 59dB day and 47dB night. Accordingly, the operation of HS2 is not deemed by the promoter to have a “significant effect” at ID213490.
- 18 The source of the baseline noise level figures that are presented in table 1 in Appendix SV-004-017 is revealed in table 1 in Appendix SV-002-017 within the Volume 5 Technical Appendices of the Phase 1 Environmental Statement. This latter table advises that the baseline noise levels at ID213490 have been assessed from data obtained at a long-term measurement station identified as CN028L.
- 19 Since the assessment of the baseline noise levels has proved to be the ruling factor in judging whether the impact of HS2 operational airborne noise at ID213490 is “significant”, the question of whether the measurements made at CN028L are representative of the baseline noise soundscape at ID213490 is relevant. In this respect, the Promoter appears to have doubts; the Promoter’s judgement, as recorded in table 1 in Appendix SV-002-017, is that the data is

only "an estimate of the sound climate".

- 20 Despite the measurement location CN028L being assessed in table 1 in Appendix SV-002-017 as being "at or very close to" the receptor location ID213490, the two sites are some 450 metres apart and there are significant differences in the soundscapes at the two locations. For example, noise from traffic using the B4453 Rugby Road would appear to be the major contributor to the high noise level in the Promoter's assessment and yet the measurement location is alongside an open section of the road with a 50mph limit in force, whereas the receptor is in a 30mph section and is screened from the B4453 by fences, gardens and houses.
- 21 If the Promoter's assessment of the baseline noise soundscape at ID213490 is correct, then it would imply that your Petitioner is, even now, enduring noise levels from the B4453 that are 4dB higher than the level that the WHO would classify as sufficient to cause the majority of people to be "seriously annoyed" during the daytime. This is not a description of his sound environment that your Petitioner recognises; he regards his surroundings as relatively peaceful, a judgment that was echoed by a mechanic working in the driveway of your petitioner's property recently who remarked, "Isn't it quiet around here".
- 22 Table 1 in Appendix SV-004-017 also records the maximum noise level expected in the "do nothing opening year baseline" as 55dB. Unlike the estimates using the equivalent continuous sound level parameters, this is lower than the maximum noise level predicted for HS2 operational airborne noise (58dB or 61dB, depending upon the train type). However, the Promoter has made no attempt to assess what significance this might have on the annoyance response or sleep disturbance.
- 23 Your Petitioner is aware that the calculation of the levels of operational airborne noise that will result from HS2 trains passing through his neighbourhood requires assumptions to be made about the height of equivalent noise sources on the train and the level of the emanations from those sources. These assumptions can have significant effects upon the estimation of noise levels at receptors. Your Petitioner is concerned that the assumptions made by the Promoter, as indicated by figures 2 to 5 in Annex D2 to Appendix SV-001-000 within the Volume 5 Technical Appendices of the Phase 1 Environmental Statement, are underestimating the contribution made by aerodynamic noise, particularly that emanating from the pantograph and its recess, to the pattern and strength of the equivalent noise sources. Certainly the low emanation levels that the Promoter is assuming for the pantograph and pantograph recess conflict with the views expressed in a number of learned articles that your Petitioner has consulted in his researches.
- 24 The graphs in figures 2 to 5 in Annex D2 to Appendix SV-001-000 also demonstrate that noise levels increase sharply with train running speed. Your

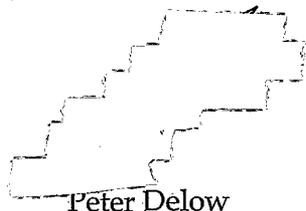
Petitioner is aware that the calculations of noise levels that the Promoter has made assume a running speed of 360km/hr, but that the track will be designed to support operating at up to 400km/hr at some future time. Your Petitioner is concerned that there are insufficient safeguards to prevent future train operations resulting in the noise estimates made by the Promoters in the Phase 1 Environmental Statement being exceeded.

- 25 Your Petitioner is concerned that the Promoter does not appear to have made any allowance in his calculations for operational conditions, such as track quality, being worse than those that are specified in the type approval specifications upon which the assumed noise source levels appear to have been based.
- 26 Your Petitioner is concerned that the policy of "raising the route" in the track section at Cubbington Wood, acknowledged on page 32 of Volume 2 Report CFA17 in the Phase 1 Environmental Statement, has resulted in the cutting through which HS2 is carried through your Petitioner's neighbourhood being much shallower; this reduction in depth is up to 9 metres near the B4453 Rugby Road. Your Petitioner contends that this height rise must have increased the noise emanations from the cutting to the detriment of your Petitioner.
- 27 Your Petitioner is concerned that the Promoter has failed to publish a noise mitigation policy and has provided no explanation of any noise mitigation features incorporated into the design of the Authorised Works and no assessment of their effectiveness.
- 28 Your Petitioner seeks explanations and better information from the Promoter. Specifically your Petitioner seeks more accurate operational airborne noise maps, a copy of the Promoter's noise mitigation policy document, and details of the noise mitigation measures that the Promoter is proposing in your Petitioner's neighbourhood together with an assessment of the effectiveness of those measures.
- 29 Your Petitioner seeks an undertaking from the Promoter that the World Health Authority recommendation that 40dB should be considered the maximum allowable daytime sound pressure level will be adopted.
- 30 Your Petitioner seeks an undertaking from the Promoter that the day-evening-night parameter, L_{den} , will be employed for all calculations relating to levels of annoyance, as proposed by the EU Environmental Noise Directive.
- 31 Your Petitioner seeks an undertaking from the Promoter that long-term measurements of baseline noise levels will be made directly at the receptor location identified as ID213490 and the data so obtained used to reassess the impact significance of operational airborne noise at that receptor.

- 32 Your Petitioner seeks an assessment from the Promoter of the impact on annoyance response and sleep disturbance of the estimated maximum noise level of a single train pass-by at receptor ID213490 that is recorded in table 1 in Appendix SV-004-017. A similar assessment is sought of the impact of this level being higher than the maximum level of the baseline noise.
- 33 Your Petitioner seeks an undertaking from the Promoter that research that includes a programme of field testing of rolling stock will be undertaken to confirm the assumptions that have been made about the height of equivalent noise sources on the train and their levels. Your Petitioner also seeks an undertaking that due allowance will be made in any assessment of noise levels for the operating conditions that are likely to be encountered on an in-service railway.
- 34 Your Petitioner seeks an undertaking from the Promoter that there will be regular monitoring of airborne noise levels resulting from train operations to ensure that the noise level estimates presented in the Phase 1 Environmental Specification are not exceeded. Your Petitioner also seeks an undertaking that no new version of rolling stock will be allowed to operate on the high speed tracks without type-approval testing being carried to ensure that noise emanations are no worse than other rolling stock operating on the tracks, irrespective of the proposed maximum operating speed.
- 35 Your Petitioner seeks a commitment from the Promoter to reduce the trackbed height in the vicinity Cubbington Wood so that it is no higher than that presented in the 2011 public consultation.
- 36 For the foregoing and connected reasons your Petitioner respectfully submits that, unless the Bill is amended as proposed above, so far affecting your Petitioner, it should not be allowed to pass into law.
- 37 There are other clauses and provisions of the Bill which, if passed into law as they now stand will prejudicially affect your Petitioner and his rights, interests and property and for which no adequate provision is made to protect your Petitioner.

YOUR PETITIONER therefore humbly prays your Honourable House that the Bill may not be allowed to pass into law as it now stands and that he may be heard by himself, Counsel, Agents and witnesses in support of the allegations of this Petition against so much of the Bill as affects the property, rights and interests of your Petitioner and in support of such other clauses and provisions as may be necessary or expedient for his protection, or that such other relief may be given to your Petitioner in the premises as your Honourable House shall deem meet.

AND your Petitioner will ever pray, &c.



Peter Delow

IN PARLIAMENT
HOUSE OF COMMONS
SESSION 2013-14

HIGH SPEED RAIL
(LONDON-WEST MIDLANDS)
BILL

PETITION OF PETER JOHN DELOW

AGAINST, By Counsel, &c.