

IN THE MATTER OF THE TRANSPORT WORKS ACT 1992  
AND THE APPLICATION BY CHILTERN RAILWAYS (BICESTER TO OXFORD  
IMPROVEMENTS) ORDER

RE: THE PROPOSED CLOSURE OF THE PEDESTRIAN LEVEL-CROSSING  
AT THE TRAP GROUNDS OFF ARISTOTLE LANE, OXFORD

*Department of Transport Reference TWA/10/APP/01/OBJ/5*

SUBMISSION TO PUBLIC LOCAL INQUIRY

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EVIDENCE OF IAN SALISBURY  
REBUTTAL OF THE EVIDENCE OF MR AIDEN NELSON – CRCL/P/7

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This rebuttal evidence is given in connection with the stated intention of Chiltern Railways to close the private level crossing at Aristotle Lane, in Oxford, that leads to the Trap Ground Allotment Gardens.

1 Re: Evidence of Aiden Nelson ((CRCL/P/7/A), paragraph 5:

*Between 1993 and 1996, my responsibilities included the development and application of a risk based safety management system within which the level crossings were identified as a key risk. To address this risk within the zone for which I was responsible, I continued to follow the Operation Lifesaver approach, initiating the “Red Runner” awareness and enforcement campaign to supplement a continued attention to the engineered configuration of the diverse range of level crossings for which I was responsible. It was at this time that my thinking on Operation Lifesaver approach evolved to recognise that it should be applied within an overarching objective to eliminate level crossings where reasonably practicable.*

And paragraph 6:

*... Again, management of risk at level crossings was recognised as a priority.*

And at paragraph 7:

*...Again, in each of these elements, the management of risk at level crossings was an important consideration.*

- 1.1 The statistical evidence available from the RSSB, the ORR and other antecedent organisations shows that accidents at level crossings are rare events. That is not to say that when such accidents do happen (as they do and doubtless will) they are distressing. Moreover, when a collision at a level crossing involves a train striking a vehicle (e.g. the sewage tanker that Mr Nelson refers to at paragraph 48 of his evidence), then injury may extend to the driver and passengers of the train as well as the driver and any passengers of the vehicle.
- 1.2 Mr Nelson in his evidence, as here, frequently fails to distinguish between the consequence of such a vehicle strike and a train striking a pedestrian on a pedestrian-only level crossing. At such an incident there will be a high probability that the pedestrian will die, and that the incident will cause at least the driver of the train a great deal of emotional distress. There will be disruption to the train service of course, but it is most unlikely that the safety of any other person would in any way be compromised by such an incident, no matter how unfortunate that incident may be.
- 1.3 It seems to me that the lack of distinction between relative risks such as this underscore a remarkable lack of objectivity in the entirety of Mr Nelson’s proof of evidence. The passage quoted above strongly indicates an inflated preconception of risk. The risk-

based safety management system that Mr Nelson refers to, owing to the infrequency and irregularity of accidents at level crossings (and in particular pedestrian level crossings) cannot have been premised upon sufficient data for the system to be considered deterministic, for such data does not exist. It cannot have been more than a stochastic model with such wide probability distributions of outcome as to be close to meaningless. That is because the incidents on which the data is based are so rare – how many times does a crossing have to be passed by a train before there is an accident? – that there can be no sensible expectation of realistic predictions, particularly individual predictions, arising from such a model.

- 1.4 In my view therefore, Mr Nelson’s conclusion that the overarching objective to eliminate all level crossings cannot be based on any of the models and programmes (for an explanation of which please see Chiltern’s response to my questions in clarification) that he mentions, but must be ascribed to motivations that Mr Nelson does not disclose including, perhaps, the objective to rid the network of any incumbrance that “bring(s) no benefits to the railways” (Mr Nelson’s evidence paragraph 30).

- 2 Re: paragraph 8:

*... During this period as risk from signals passed at danger was reduced, the prominence of risk arising at level crossings increased.*

- 2.1 As has now been explained in Chiltern’s replies to my questions, it is clear that this statement is misleading. There has been no statistical increase of risk at level crossings. The risk is so slight that annual changes in frequency cannot be ascribed any statistical relevance.

- 3 Re: paragraph 14:

*My evidence considers the over-riding intent of Chiltern Railway’s policy to create a railway between Bicester and Oxford in modern form and the implications of this intent for existing level crossings that were first provided in the middle of the nineteenth century.*

- 3.1 In my view this statement confirms that Mr Nelson’s principle objective not to provide unencumbered evidence of safety implications but to act as supernumerary advocate for the management goals of the railway company.

*This consideration takes into account national policy that there should be no new level crossings provided over railways in other than exceptional circumstances. The policy is applicable to both new railways and the extant network.*

- 3.2 It appears to me that Mr Nelson’s consideration fails to include the proviso that is clearly expressed in the national policy that he refers to. No evidence is submitted as to what Chiltern might consider to

be “exceptional circumstances”. Mr Nelson’s opinion evidence should therefore, in my opinion, be given the weight that is usually ascribed to opinions that are designed to advance a particular cause.

4 Re paragraph 30:

4.1 Mr Nelson refers to the title of a research document as being:

*Attitudes to, and funding for crossing closures.*

4.2 Mr Nelson has abridged this title. The title is:

*Attitudes to, and funding for crossing closures **in other countries.***

5 Re paragraph 31:

*... This can be seen as a factor in the approach adopted by Chiltern Rail in respect of the proposed closure of level crossings in the interests of maximising the opportunity presented by the Order Scheme to create a safe railway between Bicester and Oxford.*

5.1 This statement is in my opinion entirely disconnected with the extracts that Mr Nelson quotes from the RSSB document “Taking Safe Decisions”. The policy direction given in the Overview referred to is that those who are assessing risks should not allow themselves to be influenced by any public perception of that risk. Research should be objective. It would then be a company management decision to take account of public opinion in conjunction with the reputation of the company.

5.2 It also occurs to me that what Mr Nelson is inferring is something more than what is stated, namely: “the opportunity presents itself to rid the line of all the management encumbrances of level crossings in one fell swoop. That will save money and, coincidentally remove from all consideration the safety implications that weigh so heavily on public perception whenever there is a significant level crossing accident.” Far fetched? I think not: in my view this is a logical and fair rebuttal of Mr Nelson’s evidence.

6 Re paragraph 37, the All Level Crossing Risk Model:

*... ALCRM ... is an important tool underpinned by the application of managerial judgment when determining the actions to be taken in respect of individual level crossings. ALCRM has been used to look at the level of risk at level crossings between Bicester and Oxford on an “as is today” basis and then when the proposed Chiltern Railways service (phase One) is operating and also when additional East - West rail services (Phase Two) are added should the line between Bicester and Bletchley be reopened.*

And paragraph 38:

*... The introduction to the User Guide states that the ALCRM application is to be “used to model the predicted risk at all types of level crossings”.*

And paragraph 43:

*ALCRM provides for options for managing the identified risk to be entered and used in the conduct of cost-benefit analysis. This analysis utilises a value of preventing a fatality as a surrogate for the harm that arises when people are killed or injured.*

- 6.1 Neither Mr Nelson nor the authors of the ALCRM Guide to which Mr Nelson refers makes any claim that the Model is of any practicable use in predicting actual risk. As it says in the Introduction to the Guide (on page 9) “The application is used to model the predicted risk at all types of level crossing”.
- 6.2 ALCRM is, like all such processes where there is insufficient data to produce a determination of any significance, a stochastic process that produces nothing other than a model of unverifiable accuracy. At best, it will provide a comparison of risk results derived from different datasets that may, depending upon the quality of the introduced data, provide relative and significant values for the purpose of comparing comparative risk. But it cannot be significant in producing absolute risk probabilities because the dataset of train strikes (and particularly trains strikes of pedestrians on private crossings) is so small. ALCRM should therefore be taken for what it is: an untested and untestable model.
- 6.3 Mr Nelson is therefore correct to say this is a surrogate insofar as it provides something where nothing can be derived from the statistical data available. But that something has no statistical relevance. At best, ALCRM will improve the understanding of risk and canvass ideas for the purpose of conjecturing for the reduction of risk. But it will ultimately fail to give any indication beyond the trite and obvious, which is the material included in the dataset.
- 6.4 In my view therefore, ALCRM is likely to be of very little value in providing options for the management of risk at level crossings and the results of the ALCRM process should be treated accordingly.

7 Re: paragraph 44:

*... Generally, the ALCRM risk ranking outputs shown that leaving the existing crossings in situ increases the level of risk which is unacceptable when applied to the re-construction of the railway in modern form.*

- 7.1 Mr Nelson conflates the management desiderata for the construction of a new railway in modern form with the low grade stochastic analysis derived from ALCRM. In my view there is neither logic in this argument nor value in its conclusion. Moreover, it takes no account of the proviso of the National Policy, which is that the construction of new level crossings is to be permitted where exceptional circumstances prevail.

8 Re the section: *Safety performance at level crossings in Great Britain:*

- 8.1 Mr Nelson is presenting evidence that is to be taken into account

when considering the broad range of level crossings that are to be found along the whole length of the present Oxford to Bicester line. My concern is only with the pedestrian level crossing at Aristotle Lane, a crossing that in my view presents an extremely low safety risk (*vide* my earlier evidence). In paragraph 46 and elsewhere Mr Nelson makes no attempt to distinguish crossings for what may be clearly and obviously taken to be differing factors affecting safety in their use. In my view, a pedestrian level crossing provides a remarkably different level of risk to a crossing where a train might for instance encounter a fully laden petrol tanker. It is my view that Mr Nelson's entire evidence in this section should be read with that in mind.

9 Re: paragraph 49:

*... in the nine years there were 102 fatalities on level crossings on Network Rail controlled infrastructure, excluding suicides and suspected suicides. This figure comprises 71 pedestrians, 25 road vehicle occupants and the six train occupants ...*

9.1 The 71 pedestrians were not confined to those crossing private pedestrian level crossings of the type used by the allotment holders at the Aristotle Lane level crossing. As comparable data for the purpose of assessing risk at this crossing, these are not relevant.

10 Re: paragraph 53:

*RSSB's ASPR 2009/10 records that the annual number of fatalities at level crossings (excluding suicides) since 2001/02 ranges between seven and 16 with the 12 recorded in 2009/10 being close to the mean of 11.3 fatalities.*

10.1 This is factual evidence which is likely to be the best available in order to calculate the actual risk obtained for fatalities of any kind other than suicides on all kinds of level-crossings.

10.2 It is less relevant in assessing the risk of crossing at footpath crossings.

10.3 It is even less relevant in assessing the risk of private pedestrian crossings.

10.4 It is even less relevant than that in assessing the risk of a private pedestrian level crossing used only by a small cohort of people who are intimately familiar with that particular level crossing.

11 Re: paragraph 55:

*... the largest number, 38, have occurred on footpath level crossings ...*

11.1 This is not relevant to the assessment of risk of private pedestrian crossings used only by a small cohort of people who are intimately familiar with a particular level crossing.

12 Re: paragraph 59:

*... typical examples of misuse...*

And paragraph 60:

*... I consider that the incidents recorded within the SMIS under represent the true levels of misuse ...*

And at paragraph 61:

*... Or perhaps more accurately a “near hit” ...*

And at paragraph 138:

*The rail industry’s SMIS database details three near miss incidents with users of the Aristotle Lane private footpath level crossing between January 1998 and August 2010...*

- 12.1 The “misuse” that Mr Nelson typifies does not include any reference to the possibility of misuse of the type that might be expected of a private pedestrian crossings used only by a small cohort of people who are intimately familiar with that particular level crossing.
- 12.2 Mr Nelson offers no justification for his lack of trust in the SMIS records. In my view his conjecture is not valuable evidence. His interpretation of “near miss” and being “near hit”, true as that may be, nevertheless gives the lie to his attitude to providing evidence in this inquiry. Mr Nelson is a witness; he is not an advocate in Chiltern’s cause – or if he is, then his opinions should be weighted accordingly.
- 12.3 Although Chiltern Railways has been asked to provide better evidence of the alleged three incidents, this has not been provided. Accordingly, this evidence is rebutted on the grounds that the ORR has written (OBJ/005/2, Tab 9) to say: “we have no record of any incident at a level crossing named Aristotle Lane”.
- 12.4 In any event, the three alleged incidents referred to occurred at a time when the crossing was widely used by the public. Its use is now restricted to those who have access to the Allotment Gardens which are now fenced, gated and locked.

13 Re: paragraph 144:

*These are all factors which are likely to increase the time taken to traverse the level crossing. There are also risks that loads from wheelbarrows may be dislodged and/or wheelbarrows become stuck when crossing the railway, thereby further extending the time to which users of the level crossing are exposed to the risk of being struck by a train.*

- 13.1 There can be no doubt that when crossing a railway line at grade there will be a risk of being struck by a train. The probability of such an encounter is however so slight as to be entirely discountable, particularly where the crossing is a private level crossing used only by a limited cohort of people that are intimately familiar with the crossing and who are fully capable of adjusting their behaviour to suit the circumstances of any particular traverse of the track.

- 13.2 The allotment holders have given themselves guidance for this purpose, which is adhered to.
- 13.3 New members are always given specific safety advice concerning the use of the level crossing.
- 13.4 Loads carried across the line have to be manageable and reasonably light for there is an up gradient to the track which is limiting.
- 13.5 Allotment holders are generally helpful towards each other and assistance can always be found to get around any particular difficulty with safety.
- 13.6 These aspects, which are all unique to the use of this crossing, and which must therefore be taken as being exceptional, Mr Nelson does not mention.

14 Re: paragraph 148:

*The nearby availability of an alternative improved grade separated route across the railway negates any case for the installation of active controls in the form of miniature warning lights at either the existing Aristotle Lane private footpath crossing or a new level crossing over the line to be reinstated as referenced by Mr J Clark (OBJ/236).*

- 14.1 The provision of miniature warning lights will assist with crossing the line in the event of poor visibility or high wind (when the sound of the train horns can be obscured).

15 Re: paragraph 149:

*... exceptional grounds do not exist to permit the construction of a new private footpath level crossing over the to be constructed railway.*

- 15.1 It is certainly the case that Mr Nelson has neglected to consider any of the exceptional circumstances drawn to the inspector in the evidence of Mr Hollander, Mr Clark, Mrs Boswell, Mr Lee and myself. But this evidence goes to show that Mr Nelson is incorrect in his assertion which appears not to be based on any consideration of objective data.

16 Re: paragraph 150:

*... Closure of the existing Aristotle Lane private level crossing is further justified by the ALCRM risk ranking and elimination of train horn use associated with the crossing.*

And 152:

*...other than Bicester's London Road level crossing, there are no exceptional grounds on which retention of any of the existing level crossings on the Oxford to Bicester railway can be justified.*

- 16.1 As Mr Nelson has admitted, ALCRM is not a determinative assessment but a surrogate. Being incapable of being related to the actual likelihood of an incident at any particular crossing, it is

valueless for the purpose of justifying any kind of closure.

- 16.2 The closure of the Aristotle Lane crossing is not planned to be a positive act but the result of the existing crossing being orphaned by the construction of a new line. It would be an adventitious closure to Chiltern Railways, bearing in mind their stated intention of creating a line in “modern form”.
  - 16.3 Such a closure would undoubtedly remove whatever risk there is, no matter how slight. But such a closure could only be justified if there is nothing exceptional that outweighs the benefits of closure.
  - 16.4 Mr Nelson, as advocate for Chiltern Railways management policy, may not wish to countenance the safety and convenience of users of the level crossing when they are not actually using the crossing but are nevertheless reliant upon that usefulness and proximity for their convenience and safety.
  - 16.5 Beyond peradventure that convenience and safety marks this crossing out as being exceptional to the norm, and Mr Nelson should have recognised that in his evidence which is lacking in consequence. Exceptional circumstances exist in relation to this crossing which permit not only its retention under national policy but also its extension over the new line.
  - 16.6 As to mandatory horn use, this can be discontinued when the miniature warning lights are installed.
- 17 Re: paragraph 152:
- ...the proposals contained within the Order are inherently reasonable having regard to Network Rail’s ALCRM risk ranking and the levels of use that have been identified during the development of the Order Scheme.*
- 17.1 Bearing in mind the rebuttal evidence that exists, this statement cannot be justified in respect of the proposed effective closure of the Aristotle Lane level crossing and the failure to plan to extend that crossing across the new line.

Ian Salisbury . . . . . [signed]. . . . . 25 October 2010