

**IN THE MATTER**

of the Resource Management Act 1991

**AND**

**IN THE MATTER**

of a Notice of Requirement by KiwiRail Holdings Ltd to alter an existing designation at Tilley Road, Paekakariki (RM170060)

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**STATEMENT OF EVIDENCE OF DR STEPHEN GORDON CHILES FOR  
KIWIRAIL HOLDINGS LIMITED IN RELATION TO ACOUSTICS**

**19 JANUARY 2018**

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## 1. QUALIFICATIONS AND EXPERIENCE

- 1.1 My full name is **Dr Stephen Gordon Chiles**.
- 1.2 My qualifications are Doctor of Philosophy in Acoustics from the University of Bath, and Bachelor of Engineering in Electroacoustics from the University of Salford, UK. I am a Chartered Professional Engineer in acoustics and Fellow of the UK Institute of Acoustics.
- 1.3 I have been employed in acoustics since 1996, as a research officer at the University of Bath, an environmental specialist for the New Zealand Transport Agency, and a consultant for international firms Arup, WSP, and URS, and specialist firms Marshall Day and Fleming & Barron. I am now self-employed, operating via my company Chiles Limited.
- 1.4 I am convenor of the New Zealand reference group for the committee responsible for around 200 “ISO” standards relating to acoustics.<sup>1</sup> I was chair of the 2012 New Zealand acoustics standards review group, chair for the 2010 wind farm noise standard revision<sup>2</sup>, and a member of the 2008 general environmental noise standards revision<sup>3,4</sup>.
- 1.5 I have been responsible for acoustics assessments and design for numerous different activities including infrastructure, industrial, commercial, recreational and residential developments. This has included assessment of numerous construction and rail yards.
- 1.6 I have completed the ‘Making Good Decisions’ courses for Resource Management Act [RMA] Practitioners which provides me with current certification as an RMA Practitioner able to undertake a role as a Commissioner assisting Consent Authorities with RMA decision-making processes.
- 1.7 I confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note

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<sup>1</sup> ISO Technical Committee 43, Acoustics

<sup>2</sup> NZS 6808:2010 Acoustics – Wind farm noise

<sup>3</sup> NZS 6801:2008 Acoustics – Measurement of environmental sound

<sup>4</sup> NZS 6802:2008 Acoustics – Environmental noise

2014. This evidence is within my area of expertise except where I state that I am relying on facts or information provided by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

## **2. SCOPE OF EVIDENCE**

2.1 I have been engaged by KiwiRail Holdings Limited ("**KiwiRail**") to assess, advise on, and provide evidence in relation to noise effects and controls associated with activity in the part of the Paekakariki Rail Yard that is not included in Designation D0301 in the Kāpiti Coast District Plan ("**Site**").

2.2 I have visited the Site, including at night. I prepared an assessment report dated 21 March 2017. I attended the pre-hearing meeting on 20 July 2017. I confirm that my opinions remain as set out in my report. For this evidence I have relied on observations during my site visit and information set out in my report. I have also relied on my broader experience assessing noise for rail and construction activities.

2.3 As required by the second minute and directions of the Hearing Commissioners dated 10 November 2017, I conferenced with Mr Malcolm Hunt and we prepared a joint statement on acoustics dated 11 December 2017. In accordance with the directions, I have prepared my evidence to address the outstanding matters of disagreement between Mr Hunt and I, as recorded in our joint statement. I rely on my report dated 21 March 2017 and the areas of agreement recorded in the joint statement to set out my opinions on all other matters.

## **3. EVIDENCE OF MR HUNT**

3.1 I have read the evidence of Mr Hunt dated 11 January 2018. Mr Hunt does not resile from the areas of agreement recorded in our joint statement, but he does repeat background information and commentary similar to his earlier report.

- 3.2 While Mr Hunt and I agreed in the joint statement that noise effects should be acceptable, Mr Hunt comments in his evidence that based on descriptions of activity in submissions, the use of the Site appears to give rise to more than minor noise effects at times. In my opinion, Mr Hunt's commentary on existing noise effects does not adequately reflect the existing environment (excluding activity on the Site), which includes extensive railway related activity in the existing long-established and busy designation.
- 3.3 As I discussed in my assessment report, the existing environment includes sound from train stabling activities during the night, train movements, state highway road-traffic, rail yard activities and car parking for commuter rail, in addition to natural sounds at different times including wind, waves, flora and fauna. In my opinion, sounds on the Site occurring primarily during the daytime, such as from occasional vehicle movements, materials handling and people talking would only cause a minor noise effect in this existing environment.
- 3.4 Regardless of the above discussion, Mr Hunt and I remain in agreement that noise effects can be appropriately controlled.

#### **4. OUTSTANDING AREAS OF DISAGREEMENT**

- 4.1 The acoustics joint statement only recorded one area of disagreement between Mr Hunt and I, relating to whether noise management should be specified in designation conditions. From a review of Mr Hunt's evidence, there appears to be an additional area of disagreement relating to the extent of current adverse noise effects. I have set out above the reasons why I consider that existing and future activity should only have a minor noise effect in this environment, as opposed to Mr Hunt's view that noise effects are more than minor at times.
- 4.2 The area of disagreement between Mr Hunt and I relating to designation conditions is set out in paragraph 4.1 of our joint statement. Following the preparation of our joint statement, I have reflected further on this matter and spoken with Mr Tom Anderson

regarding his opinions from a planning perspective. I have reached a modified conclusion, which takes into account the main concerns raised by Mr Hunt.

4.3 I remain of the opinion that it is unnecessary and inappropriate for a lightly used storage yard and base depot to be subject to a formal noise management plan. In paragraph 3.3 of the joint statement Mr Hunt and I agree that such activities should require minimal noise management. In my opinion, these types of activities would only have a minor noise effect in this environment without any specific controls required, beyond normal good practice.

4.4 In paragraph 3.4 of the joint statement Mr Hunt and I agree that more intensive future activities would require more involved noise management. Having reflected on this issue and discussed it with Mr Anderson, I agree that if future activities are more intensive it could be appropriate for designation conditions to require a formal plan for noise management, possibly within a broader site management plan, when that intensification occurs.

4.5 So far, no differentiation has been made in the draft conditions between the current 'light' use of the site and possible future more intensive uses. I suggest the following criteria could be adopted to provide an appropriate trigger point when a noise management plan is required:

- (a) If the yard is planned to be used between 2200h and 0700h more than once a week (other than by light vehicles); and/or
- (b) If the yard is planned to be used for manufacturing or fabrication activities; and/or
- (c) If new rail track/sidings are proposed to be laid in the yard.

**Dr Stephen Gordon Chiles**

**19 January 2018**