

**BEFORE THE CANTERBURY REGIONAL COUNCIL**

**IN THE MATTER** of the Resource Management Act  
1991

**AND**  
**IN THE MATTER** of CRC194459 by Tegel Foods  
Limited

---

**STATEMENT OF EVIDENCE OF PAUL WHYTE  
FOR THE MINISTRY OF EDUCATION**

**Dated 4 AUGUST 2020**

---

---

## Introduction

1. My full name is Paul Stuart Whyte. I hold the qualification of a Bachelor of Town Planning from Auckland University. I am a Full Member of the New Zealand Planning Institute. I have practised in the field of town planning/resource management planning since 1984, primarily working for both local government and planning consultants in Dunedin and Christchurch. Currently, I am a Senior Planner (Senior Associate) in the Christchurch office of Beca Ltd (Beca).
2. I am appearing in support of the submission by the Ministry of Education in respect of resource consent CRC194459 in which Tegel Foods Limited (Tegel) propose to discharge contaminants to air from a poultry processing plant located at 112 Carmen Road, Christchurch. The submission relates to the actual and potential effects of odour on Hornby High School and Hornby Primary School.
3. Beca assist the Ministry of Education (“the Ministry”) by monitoring Resource Management Act related matters occurring across the country, in order to identify potential effects on the Ministry’s properties and infrastructure. Beca provides advice on a number of matters including notified resource consents, affected party approvals, review of district plans, plan changes property matters and growth strategies. I am the Beca reviewer of Ministry submissions for the Southern Region (the South Island), a position I have held since 2015.
4. I confirm that I have read the ‘Code of Conduct’ for expert witnesses contained in the Environment Court Practice Note. My evidence has been prepared in compliance with that Code. In particular, unless I state otherwise, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.
5. The data, information, facts and assumptions I have considered in forming my opinions are set out in my evidence to follow. The reasons for the opinions expressed are also set out in the evidence to follow.

6. I have read the Section 42A reports of Myles McCauley and Daryl Irvine. I have also had regard to the evidence of the applicant's witnesses.
7. My evidence covers the following matters;
  - The proposal;
  - Odour issues after implementation of improvements;
  - Closing of protein recovery plant doors;
  - Draft Odour Management Plan; and
  - Term of consent.

### **THE PROPOSAL**

8. The application is described in detail in the Section 42A report and in the applicant's evidence I do not propose to repeat these descriptions. However, I note the following;
9. Hornby High School (the high school) and Hornby Primary School (the primary School) are located in relative proximity to the Tegel plant, with approximately 190m to the closest high school boundary and 300m to the closest high school building. The closest building at the primary school boundary is approximately 570m from the Tegel plant. I note that the schools are located downwind of the prevailing north east wind, as shown in "Figure 2: Wind Rose" of the Section 42A report.
10. The Ministry's submission stated that students and staff at the high school and the primary school experience odours from the plant, which are considered to be offensive and objectionable. The schools experience a "freezing works" odour which is particularly noticeable during north east winds. The Ministry sought refusal of the application or clarification of the proposed improvements such that the schools would not be adversely affected.
11. The Ministry had valuable discussions with the applicant on 15 July 2020 in respect of the Ministry's concerns and I believe that some of these concerns were addressed. The applicant

provided clarification on points raised in the Ministry's submission, including the following;

- Length of time that live birds are in the receiving area
  - Whether the solid material from the screens are transported in an enclosed conveyor
  - Details to be included in the draft odour management plan
  - Biofilter depth
  - Extraction system maintenance
  - Contact details for reporting any offensive and objectionable odours.
  - Odour Management Plan
12. However, there are still some outstanding matters which are outlined below. In considering these outstanding matters I have also had regard to the recommendation and suggested conditions set out in the Section 42A report. In general, I concur with the report except for some matters which are also addressed below.

### **ODOUR ISSUES AFTER IMPLEMENTATION OF IMPROVEMENTS**

13. As discussed at the Ministry meeting with Tegel on 15 July 2020 and the evidence of the applicant's witnesses, I understand that Tegel have recently completed improvements at the plant which include the following;
- a. Installation of a large lid to enclose the effluent holding tank which is ventilated to the biofilter. The lid and extraction fan were installed in November 2019 and ducting linked to the existing biofilter in January 2020.
  - b. Extraction system (ventilation) upgrade in the Protein Recovery Plant in January 2020.
  - c. A replacement biofilter that is fitted with permanent misting sprinklers and monitoring devices. Work commenced in January 2020 and the biofilter was operation in May 2020.

14. Notwithstanding the improvements carried out, Mr Robin Sutton, the Principal of Hornby High School has indicated that significant odour was experienced in February 2020. This matter was raised by Mr Sutton in the meeting with Tegel in July 2020 and he is able to speak further to this at the hearing. In short, Mr Sutton details that “freezing works” type odour was continued to be experienced.

15. I note that most of the improvements (i.e. the effluent tank lid, extraction fan and ducting linked to the existing biofilter, and the protein recovery plant ventilation upgrade) were operational before February 2020, with only the upgrading to the biofilter not undertaken. In this respect, Mr Pene in his evidence (para 98) states:

*“The proposed biofilter has been designed with the proposed increased extraction flow in mind and improved plenum design should provide for better distribution of that flow across the bed. The full impact of proposed modifications on odour control is best understood with both the extraction and treatment upgrades in place, which has been the case since May 2020. With the full odour control upgrade in place I expect that a reoccurrence of the odour nuisance impacts noted at the Hornby High School over the preceding summer should be avoided in future.”*

16. Although this is somewhat reassuring, I note that Mr Pene is unable to provide certainty that the biofilter will mitigate an odour which can potentially disrupt the operation of the schools. This is of concern to the schools and I note the odour efficiency of the biofilter does not appear to have been addressed in any particular detail in the consent conditions.

17. Accordingly, it is suggested that a further specific condition be added as follows:

*The biofilter shall be designed and operated to achieve an odour removal efficiency of at least 95%. The odour removal efficiency shall be measured within three months of the consent being granted and every two years thereafter.”*

*“If the biofilter does not achieve an odour removal efficiency of at least 95%, the consent holder shall provide the consent authority with a report describing the modifications necessary to make the biofilter compliant with at least 95% odour removal efficiency. Following any modifications to the biofilter, the odour removal efficiency shall be tested within three months of the modifications being made and the results reported to the consent authority.”*

18. This condition or similar will enable specific monitoring of the biofilter which appears key to mitigating the odour from the plant, at least for the schools.

### **CLOSING OF PROTEIN RECOVERY PLANT DOORS**

19. I understand that the primary source of odours is the Protein Recovery Plant. While it is acknowledged that the ventilation system has been significantly upgraded, the issue of open doors of the plant being opened does not appear to have been addressed in any particular detail by the applicant. Potentially it appears it could be one of the reasons why the schools were still experiencing odour issues in February and was a matter alluded to at the July 2020 meeting between the Ministry and the applicant.
20. This issue was highlighted in the s42A report of Mr Daryl Irvine line paragraph 13, which states the following;

*The Applicant has outlined that doors being left open is a potential odour source, and the applicant proposes to maintain doors closed at all times when the plant is operating. This is an essential requirement to maintaining negative pressure in a building air extraction system. An exception to this requirement has been made, for when the air temperature within the building exceeds 35°C, which could result in discomfort for operators. Under these circumstances, the Applicant has outlined that the Team Leader will work with the EHS manager to develop a solution. I note that a 35 °C temperature internal to a rendering plant building can be a frequent occurrence and a solution needs to be developed that does not include opening of doors that will allow odorous air to escape.*

21. In this respect it does not appear a solution has been developed or addressed in any particular detail in the proposed conditions. The recommended condition 16 of the Section 42A report states;

*All doors and windows on the protein recovery plant shall be kept closed to the maximum practicable extent.”*

22. While I acknowledge the term “practicable” is frequently used in resource consent conditions it does not provide the Ministry with any significant certainty or provide a means for a solution as indicated in the report by Mr Irvine, particularly as the opening of doors can be a “*frequent occurrence*” .

23. Accordingly, I suggest that the condition around the opening of doors are strengthened. In this respect it is suggested that condition 16 is amended as follows (or similar);

24a. All doors and windows on the protein recovery plant shall be kept closed to the maximum practicable extent.” at all times except for the purpose of ingress of goods or egress of products, provided that the doors may be open when the air temperature within the building exceeds 35°C and the temperature is a health and safety matter for operators.

24b. The applicant shall undertake an investigation of the opening of doors and windows of the protein recovery plant during high temperatures and suggest solutions to minimise these openings. The applicant shall provide the consent authority with a report within 12 months of the commencement of the consent.

24. The matter of opening and closing the doors also does not appear to be addressed in the Odour Management Plan and in my view this is an important matter that should be covered in the Plan given its potential effects.

### **Draft Odour Management Plan**

25. A draft Odour Management Plan as provided in Fiona McAlpine’s statement of evidence appears to be satisfactory except for the following:

- the lack of reference to the management of doors at the Protein Recovery Plant and;
- the lack of reference to Hornby High School and Hornby Primary School as a “sensitive activity” in the Table on page 10 (notwithstanding earlier reference to the schools in the Plan).
- Section 9 lists a number of “relevant” site documents but it is not clear if these are required to be given effect to as part of the Plan. The link between the documents and the Plan should be made more apparent.
- Clarification if the “Rendering Cleaning Schedule” from the *South Island Engineering Protein Recovery Manual* is included in the Odour Management Plan given it was a document used in discussions with Tegel to satisfy the Ministry’s concerns.

In my view these matters should be rectified in the Plan by appropriate amendments.

#### **TERM OF CONSENT**

26. The Section 42A report recommends a term of consent of 10 years. I support this term as it provides the applicant with some certainty but acknowledges that the improvements to address odour issues are not yet proven, particularly relating to sensitive activities such as the schools.

#### **CONCLUSION**

27. Hornby High School and Hornby Primary School experience offensive and objectionable odour from the Tegel plant. For the reasons set out above, it is my opinion that the suggested amendments in respect of the improvements, the Protein Recovery Plant doors and Odour Management Plan are necessary in order that the adverse effects on the schools are mitigated to an acceptable level.
28. Overall, having regard to the matters in section 104 of the RMA, it is my opinion that resource consent can be granted to the



application provided that amendments are made to the conditions and the term of consent is no more than ten years.

**DATED** this 4<sup>th</sup> day of August 2020



---

Paul Whyte