

**IN THE MATTER OF**

the Resource Management Act 1991

**AND**

**IN THE MATTER OF**

Application CRC094136 to the Canterbury Regional Council for resource consent to discharge contaminants to air.

## **Decision of the Commissioners**

**Barry Loe & Rik Tindall**

### **Appearances**

#### **Applicant**

Ms S Day  
Mr D Gage  
Mr T Proffitt  
Mr P O'Donnell  
Mr J Iseli  
Ms J Ashley

#### **Submitters**

Mrs J Highfield  
Mrs S Townshend  
Mrs A Taylor  
Mr J Thompson

#### **Regional Council Officers**

Mr K Swete  
Mr N Dougherty

### **Introduction**

1. This is the decision of the commissioners Barry Loe, Consultant and Rik Tindall, Regional Councillor, appointed by Canterbury Regional Council to hear and decide the application by Lowe Corporation Ltd for resource consent to discharge contaminants into air from a tannery and a coal-fired boiler located in Station Road, Belfast, Christchurch.
2. We heard the application and submissions in Christchurch on Monday 19<sup>th</sup> and Tuesday 20<sup>th</sup> October 2009. We undertook a site visit on the 20<sup>th</sup> October. The hearing was adjourned for the applicant to provide further information on measures undertaken or proposed to reduce the odours discharged from the site. This information was received and sent to submitters who had requested to be heard, with an opportunity for written comments to be provided. Final matters in reply from the applicant were received on 19 December 2009. The hearing was closed on 9 February 2010.

## Background to the Application

3. Lowe Corporation Ltd (the applicant) operates a number of plants in New Zealand processing by-products of the meat processing industry. The Belfast plant is now operated as a 'wet-blue' tannery, processing animal hides and skins to produce preserved and tanned pelts and hides that are exported or sent locally for further processing into leather. Until about 2004, the Belfast plant had operated for 25 years as a fellmongery, where sheepskins were treated to remove the wool, and then pickled before the skins were sent off for tanning. The wool was washed and dried in the Belfast plant.
4. The applicant holds resource consent CRC921752 to discharge to air. That consent was granted to a former owner of the fellmongery operation in 1999 for a duration of 10 years. That consent expired on 15 December 2009. The application being considered in this hearing, CRC094136, was made more than 6 months before the expiry date of CRC921752, therefore under s124 of the Act the applicant can continue to operate under the earlier consent until this current application is resolved.
5. The application was notified in July 2009 in newspapers and sent to all properties with addresses within 400 metres of the site. Forty-two submissions were received, with forty-one submissions opposed, and fifteen requested to be heard.
6. The applicant's operation is located in an area of Christchurch where there is a long history, more than 120 years, of animal products processing industries operating. Current operations include two meat freezing works, a wool scour and a pet food factory. The scale of the freezing works is reported to be diminishing.
7. The Belfast residential community has grown considerably in the past 20 years, with new subdivisions and in-fill housing development. It is well known that Belfast residents at times, have experienced and continue to experience, offensive odours from the operations of these industries.

## Statutory provisions

### The Resource Management 1991

8. This application was lodged before the Resource Management (Simplifying and Streamlining) Amendment Act 2009 was enacted. As directed by s160 of that Act the application is to be determined as if the Amendment Act had not been made.
9. Section 30 of the RMA describes the functions of a regional council. These include;  
*(f) The control of discharges of contaminants... into air...*
10. Section 15(1)(c) of the RMA controls the discharge of a contaminant from any industrial or trade premises into air. A discharge cannot occur unless it is expressly allowed by a rule in a regional plan and in a proposed regional plan, or by resource consent.

### National Environmental Standards for Air Quality (NESAQ)

11. Regulations giving effect to NESAQ came into effect in 2005. These set ambient air quality standards for a range of contaminants, including particulate matter sized 10 microns or less (PM<sub>10</sub>), sulphur dioxide and nitrogen dioxide. Christchurch is an air shed that breaches the ambient air quality target for PM<sub>10</sub>.

12. There is a clear national directive to reduce the concentration of PM<sub>10</sub> in Christchurch, and to ensure ambient air quality for other contaminants does not exceed national guidelines.
13. Regulation 17 of the NESAQ limits a decision on an application for resource consent to discharge PM<sub>10</sub> in the Christchurch air shed, if the discharge is likely to significantly increase the concentrations of PM<sub>10</sub>.

### ***Regional Plans & the Activity Status of the Application***

14. At the time the application was heard, the Transitional Regional Plan (TRP) was the relevant operative regional plan for this application. The Natural Resources Regional Plan (NRRP) was the relevant proposed plan. However since the hearing of the application the NRRP has become operative in part, including the provisions relevant to this application.
15. There is no disagreement between the applicant, the Council Officer or us about the status of the activity. Each of the plans classifies the discharge as a ***discretionary activity***.

## **Summary of Evidence**

### ***The Case for the Applicant***

16. The applicant's case was summarised by counsel, Ms Day. This is an application to renew the current consent held by the applicant. The operation of the plant has substantially improved since the previous consent was issued in 1999, and there have been few complaints about odour during the term of the consent. There have been some changes over the past 5 years to the processes undertaken on the site, including the cessation of the operation as a sheepskin fellmongery. These changes have reduced the effects on the environment of the discharge to air.
17. The animal hide processing activity on the site has been lawfully established for many years in an appropriate zone under the Christchurch City Plan, and therefore people choosing to live near the site must expect odours. Environment Court decisions support this approach. The applicant has a substantial capital investment in the operation at this site, and we must have regard to the value of this investment under s104(2A) of the RMA.
18. The Regional Plan distinguishes requirements for managing odour effects from existing activities and from new activities. Activities such as this plant, that existed before the NRRP was notified in June 2002, are expected to adopt the best practicable option to manage odours, recognising that discharges of odour from the site may still occur. Existing sites are to be protected from 'reverse sensitivity' effects where encroachment by activities such as residential housing may result in the receiving environment for the discharge becoming more sensitive to the odour.
19. The current consent had been granted for 10 years under a cautious approach taken in 1999. The compliance record since then supports the current application being granted for 35 years. Consent review conditions could allow the effectiveness of mitigation measures to be assessed.
20. Mr Dean Cage, Plant Manager for the applicant's Belfast operation, described the daily operations at the site and the products produced. Hide processing occurs 24

hours a day with production during December to May being about twice that of the rest of the year.

21. Mr Trevor Proffitt, Technical Manager at the plant and Mr Peter O'Donnell, an environmental engineer who has a long history with the tanning and fellmongery industry and has recently been appointed the Group Environment Risk Manager at Lowe Corporation Ltd, described the tanning processes, and liquid and solid waste collection, treatment and disposal systems. Most of the processing is done in large enclosed wooden drums, but with some salting and soaking of skins and a small amount of processing undertaken in open-mouthed Canbar vessels.
22. Mr O'Donnell and Mr Proffitt described the differences between the now ceased fellmongery operation and the current wet-blue tanning operation and how these differences impact on the generation of odour. In the fellmongery sheep skins were treated with sulphide to remove the wool before the skins were pickled. The wool was washed and dried. The wool removal and processing was a source of fugitive odours from this plant in the past but this process does not occur in the tannery, as the hides are loaded directly into the processing vessels. Once in the vessels the fellmongery and wet-blue tanning processes are very similar, except in the tanning process chromium salts are added to preserve the skins, producing wet-blue tanned hides.
23. Hydrogen sulphide odours from the process are generated from the interaction of acidic material with sulphide. The fellmongery, in the wool removal process, used considerably more sulphide than is used in the tannery process, resulting in more hydrogen sulphide generation. Also since the applicant has operated this plant as a tannery, hydrogen peroxide is added during the tanning process, to oxidise the sulphide to sulphate. This has significantly reduced the generation of hydrogen sulphide in the tanning vessels.
24. Wastewater streams from processing are segregated depending upon their source, with sulphide/lime and chromium wastes each separated from general wastewater. The sulphide and chromium waste streams are individually treated before being mixed with general wastewater in the balance tank. The sulphide/lime wastewater is subjected to concentrated aeration, and the chrome is recovered from the chromium wastewater. Each waste stream then enters the balance tank and is further aerated before being treated to remove grease and solids before it is piped to the Christchurch City Council trade waste sewer.
25. Solid wastes from the hide processing and effluent treatment plant are removed from the site for disposal within 24 hours of production, except for some solid waste that is generated on Saturdays. This is treated and kept inside the plant for collection each Monday morning.
26. An air extraction system and biofilter are used to collect and treat fugitive emissions from the tanning vessels. This system was installed as a requirement of the current resource consent. The media in the biofilter was replaced in September 2009.
27. The effluent treatment processes outside the main building are a potential source of odour from discharges of hydrogen sulphide. Concentrations are monitored and if in excess of the CCC trade waste standard, the effluent is dosed with hydrogen peroxide. An automatic monitoring and dosing system has recently been installed.
28. Mr Proffitt was aware of two complaints made about odour from the plant in the past 10 years and these were associated with the removal of accumulated sludge from an

- wastewater tank. As a result of this incident, the tanks are now cleared of sludge more regularly.
29. The applicant is committed to limiting the effects on the environment of its operation as much as possible, and has protocols and procedures to achieve this. Mr O'Donnell is engaged in a number of projects to improve environmental performance at the Belfast site that are expected to further reduce the odours discharged from the site.
  30. Mr John Iseli, an air quality consultant, described the boiler, the coal type and rate of consumption and the contaminants discharged from coal burning. The coal blend used has a sulphur content of less than 1%. The amount of coal used each day, average 1.3 tonnes, is much lower than the amount sought in the application and allowed under the current consent, of 5 tonnes per day. In response to a question about the amount of coal used, the applicant suggested that the maximum amount of coal consumed could be reduced to 2.5 tonnes per day in the application. The maximum rate of coal burning, 300 kilograms per hour, remains the same, as the boiler will run at peak capacity at times. The changes to the production processes at the site, such as ceasing of wool drying and the improvements to the efficiency of the boiler means that for much of the time the boiler operates at a lower coal consumption rate.
  31. The boiler has a grit arrestor that operates to reduce the discharge of particulate matter, and the coal feeding system in the boiler has recently been modified to optimise efficiency.
  32. The contaminants of significance to air quality in this location discharged from the boiler are; sulphur dioxide, nitrogen dioxide and PM<sub>10</sub>. Mr Iseli had undertaken dispersion modelling to predict approximate ground level concentrations of contaminants discharged. The modelling predicted that concentrations of sulphur dioxide and PM<sub>10</sub> will be much lower than relevant air quality guidelines. The maximum PM<sub>10</sub> concentration was predicted from burning 5 tonnes of coal per day, twice the maximum actual amount. Emission testing undertaken on the discharge in 2009 indicates that the total suspended particulate matter (TSP) discharged from the boiler can comply with the emission limit of 250 mg/Nm<sup>3</sup> set in the current discharge permit.
  33. The receiving environment for the discharge from the boiler is dominated by the emissions from the boilers at the nearby Silver Fern Farms plants and Kaputone Woollscour. The predictive modelling of the cumulative effects of all the boilers operating at maximum stated capacity at the same time (a very unlikely scenario) indicates that at the nearby residential areas the maximum PM<sub>10</sub> concentrations would be less than 10% of the NESAQ, up to 43% of the NESAQ for sulphur dioxide and less than 1% for nitrogen dioxide. The maximum PM<sub>10</sub> concentrations are predicted to occur under meteorological conditions that do not result on high concentrations of PM<sub>10</sub> from domestic fires, so no combined cumulative effects from the industrial and domestic sources of PM<sub>10</sub> is expected. Mr Iseli concluded that the adverse effects on the environment of the discharge from the boiler will be minor.
  34. Mr Iseli presented a summary list of complaints recorded by Environment Canterbury about odour in the area of the applicant's site. The summary list reported five complaints of sulphide odours attributed to the site since 2006, when the applicant took over the operations there. We asked for the complaints record from 2000 to 2005, and this shows 14 complaints recorded, 12 of which were not substantiated by Environment Canterbury.

35. Mr Iseli noted that the change from a fellmongery to a tannery will have reduced the potential for hydrogen sulphide generation, and the biofilter appeared to be operating effectively to capture and treat the emissions from the tanning vessels. He identified the waste treatment plant and the pipeline to the CCC trade waste sewer as potential sources of odour if standard operating procedures are not followed to maintain the effluent in an aerobic state. Improvements to the system in 2009 to continually aerate the contents of the sulphide oxidation tanks and the balance tank should assist with this. Other management suggestions include frequent removal of solid wastes from the site to prevent this material from producing odours. Operating procedures to address these matters should be described in a management plan that addresses odour management on the site.
36. Predominant winds in this area are from the east. Mr Iseli considered that the history of complaints about this site indicates that the odour events experienced by nearby residents, the nearest of which are 180 metres to the east, are infrequent and of brief duration, and therefore the adverse effects on the environment of these past events is minor, and good management practices should ensure this for the future.
37. There are several other industrial activities in the vicinity that cause odours, but which may have different characteristics to the odour from this site. A person with a 'trained nose' may be able to distinguish the source of an odour, while members of the public may not. This could lead people to incorrectly attribute an odour to a source. Mr Iseli considered that some of the submissions received were from people living outside the area likely to be affected by discharges from the applicant's site.
38. Ms Justine Ashley, a resource management planner, described the planning context for this site. Belfast is one of the longest-established industrial suburbs of Christchurch, with the nearby residential area developed to provide accommodation for employees of the various freezing works and associated industries. The area of industrial use, that includes the applicant's site, is zoned for this purpose in the Christchurch City Plan. Areas zoned for residential purposes commence 180 metres to the west of the boiler chimney stack on the applicant's site, across the rail corridor.
39. Proposed changes to the Regional Policy Statement, that will establish a framework for the future development of the Greater Christchurch area, have not identified new areas of residential development within 350 metres of the applicant's site.
40. Ms Ashley assessed the relevant regional planning provisions and concluded that, from the evidence of Mr Iseli, the application was consistent with the relevant provisions of the Regional Policy Statement and the Regional Plans, and any localised ambient air quality issues are able to be successfully managed through the adoption of best practicable options available to the applicant.

### ***The Submissions***

41. Of the 42 submissions received, 41 were opposed, and 15 requested to be heard. It is our duty to consider all submissions made, not just those of the submitters who attended the Hearing. Most of the submitters are residents in the area between Belfast Road, Main North Road, Factory Road, and the rail corridor. This is the area directly west of the applicant's site, the wool scour and the freezing works rendering plant.
42. There are a number of recurring concerns expressed in the submissions. The impact of strong unpleasant odours on amenity values including outdoor activities and inside

dwelling is a concern of most submitters. Concerns about the effects of coal burning and increasing residential development in the area were expressed in half of submissions. The duration of consent applied for is considered too long by many submitters. Concerns about adverse health effects on residents and the public generally, general pollution from the activity, and a desire to see the operation re-located were also expressed.

43. Four submitters presented at the Hearing. Mrs J Highfield owns a property in Richill Street. She described odour experienced at the property as 'rotten eggs' and it permeates the house, on windless days persisting for hours. Windows in the house cannot be opened when the odour is present and she does not have confidence to plan social activities at the property. She has not made a complaint about the odour to Environment Canterbury. She is concerned about effects of contaminants discharged from the boiler, and considers it inequitable that Christchurch residents cannot use coal for heating, while industry can. If the consent is granted she considers it should be for a term of 3 years, to allow the applicant time to relocate its operation from this site.
44. Mrs Sarah Townshend has lived in Factory Road for the past 5 years. She described experiencing several different odours in this area, but that the 'rotten eggs' smell of hydrogen sulphide is the worst. She considers that the frequency of these odours has increased this year. Mrs Townshend stated that she had called the Environment Canterbury Pollution Hotline more than 50 times in the past 5 years, and that the response from Environment Canterbury staff was always that the odour was from the freezing works, no matter what type of odour was described.
45. Mrs Ann Taylor has lived in Guthries Road, north-east of the industrial area, for 20 years. She considers that the people of Belfast have been subjected to unfair environmental conditions for many years. Mrs Taylor has been involved with Belfast residents groups that have made submissions to resource consent hearings for applications to discharge to air from the various meat and animal products processing industries in this area of Belfast since 1996. She was one of 70 submitters to the current application held by the applicant. Her experience is of frustration in that, despite assurances by applicants in hearings that there will be a reduction in the discharge of odours and other contaminants from improvements and management of these sites, odours continue to be a problem. She is opposed to coal burning at this site when residents are prevented from burning coal in domestic fires. The community of Belfast bears the highest cost, with little benefit, from the on-going operation of this industry, and it should relocate to a more suitable site.
46. Mr JJ Thompson has lived all his life in Belfast, and for 65 years on Guthries Road, directly east of the industrial area. He believes the odour from the applicant's operations has increased over the past year, to the extent that he has, at times, cancelled social events at his property. He also considers burning of coal for industry inequitable when it is banned for domestic fires. The effects of the discharges are on existing residents, so the defence from reverse sensitivity is not appropriate in this situation. The application should be declined.

### ***The Council Officers***

47. The Officer's Report was prepared by Mr Kevin Swete, an Investigating Officer with Environment Canterbury, who in previous employment was a technical officer in a tannery for 15 years. Mr Swete provided an audit of the application including the assessment of effects on the environment document. In respect of the boiler discharge he pointed out that the emissions testing for the stack undertaken in 2002,

gave an average emission rate for particulate matter of 120 mg/Nm<sup>3</sup>, but the 2009 tests gave an average of 242 mg/Nm<sup>3</sup>, with one measurement exceeding the 250 mg/Nm<sup>3</sup> limit in the consent conditions, and he noted that monitoring records showed actual coal consumption was about 1.3 tonnes per day. He considered the effects on the environment of the boiler discharge to be minor, both individually and cumulatively with the other discharges in the area.

48. In respect of odours from the tannery processes and the waste management, he considered the changes to the operation since the current consent was granted would have reduced the odour emissions, however most of the submitters have expressed concerns about on-going odours.
49. Mr Swete considered the application is not contrary to the objectives and policies of the Regional Policy Statement and the proposed Natural Resources Regional Plan (NRRP). Regulation 17(1) of the NESAQ would not be invoked. The current air quality of the Christchurch air shed includes the contribution from this existing discharge, so granting the consent would not significantly increase the concentration of PM<sub>10</sub>. The policies of NRRP also seek to reduce the PM<sub>10</sub> concentrations but principally targets emissions from domestic solid fuel burning as this has contributed over 80% of particulate emissions in Christchurch.
50. In respect of duration Mr Swete referred us to the Environment Court decision *PVL Proteins vs ARC* that relates to the discharge to air from a meat processing plant. In that case the Court considered arguments for reducing the duration of consent to less than 35 years. The Court considered that issues about changes to technology that should be incorporated into the consent and changes to management effectiveness at the site could be addressed through a condition providing for review of the consent conditions. However the Court concluded that changes to the receiving environment that would make it more sensitive to the discharge could not be foreseen, but could take some years to develop – up to 15 years in that case. The Court limited the duration to 14 years.
51. Mr Swete's view was, that in the application before us, the receiving environment has probably become more sensitive over time as residential areas have been developed to the west and south-west of the site, and that this increase in sensitivity is likely to continue. In answer to our question, Mr Swete said he could understand why a duration of 10 years was imposed on the current consent, however the applicant had demonstrated a good track record during this period which could be 'rewarded' with a longer duration for this application.
52. We asked Mr Nathan Dougherty, a senior Enforcement Officer for industrial discharges at Environment Canterbury, to address us on the investigation of complaints of odour in the Belfast area, including from the applicant's site. Mr Dougherty explained how he identifies and assesses an odour in response to a complaint. His experience enables him to identify the character and intensity of the odour and taking into account the wind direction he moves around an area to assess the extent of the plume of odour and locate its source. If possible, he will then confer with the complainant about their experience of the odour and verify the complaint. If from his assessment he considers the odour to be offensive or objectionable and he is able to identify the source of the odour, he then contacts the person responsible for the discharge to further investigate the reason for the discharge and what can be done to prevent future discharges. Environment Canterbury has tried other approaches to odour complaints, such as 'electronic noses' and odour diaries kept by local people, but the approach described has proven to be the most effective means of responding to complaints.

53. Mr Dougherty described a wide range of common odour sources in Belfast near the applicant's site, including the meat processing works with rendering and composting operations and a now ceased blood drying facility, the wool scour, a vegetable processor, and spreading of pig effluent. From experience he is able to distinguish between the odours and their sources. He is confident that the Environment Canterbury complaints record for the applicant's site is accurate, and that most of the sulphide smells attributed by complainants and submitters to the applicant's site, are generated from the wool scour next door. Mr Dougherty told us that he, along with some 'experienced complainants' in Belfast, is able to differentiate between odours from the applicant's site and those from the wool scour, and that many more complaints of odour are substantiated as being from the wool scour and other sources than from the applicant's site.

### ***The Applicant's Right of Reply***

54. The applicant's reply from Mr Iseli and Ms Day was primarily given verbally before the adjournment of the hearing, and was completed in writing following comments from submitters on the information provided by the applicant in response to our request for further information.
55. Mr Iseli said that six complaints reported over the past 10 years that were substantiated as being odour from the applicant's site was indicative of an operation with a minor effect. He compared these records with those of the adjacent meat processing plants that regularly have had up to 40 substantiated complaints per year. Sulphide odours attributed to the applicant's operation may also be produced from the wool scour and the effluent treatment systems of the meat processing plants. The New Zealand national guidelines for odour management promote the recognition and use of substantiated complaints data in resource management processes relating to odour discharges, rather than submissions on applications. While some submitters who live nearby, such as Mr Thompson, may be affected by odour from the site from time to time, the odour will not be continuous, and the frequency that an odour is experienced needs to be considered in the assessment of the effects of an odour. The odour management at this site is a 'belts and braces' approach using hydrogen peroxide and a biofilter – other similar plants would use one or the other of these measures, but not both.
56. Ms Day said that the RMA contemplates achieving a balance between operations of the applicant and obligations to the community, but this did not require the complete avoidance of odours. There is a discrepancy between the extent of complaints claimed to be made by submitters and the records of Environment Canterbury. The activities on the site are appropriately located in terms of the district and regional plans so submissions seeking that the applicant relocate should be given little weight.
57. The applicant is undertaking a lawful existing activity that has been there for many years and many of the submitters have lived in the area for only a few years – and knowing the presence of the industry when they moved to the area. The applicant considers that not all the odours that submitters attribute to the tannery are discharged from there, as it may be difficult for lay people to differentiate between sources of odour.
58. The Environment Court has in many cases stated that people living near an industrial zone cannot expect an environment free of the effects of the industry. The receiving environment is not going to become more sensitive and the planning controls in the Christchurch City Plan and proposed changes to the Regional Policy Statement will

ensure this is achieved. This is an important aspect in consideration of the duration of consent.

59. The evidence of the applicant's experts is that the adverse effects on the environment will be minor, and there is no evidence to the contrary. The applicant is committed to improving the standard of its operations and reducing the effects on the environment.
60. We requested further information from the applicant seeking a description of the improvements to the plant and its management made over the past 10 years by the applicant or its predecessors on the site, and improvements proposed over the next 5 years, that would reduce the discharge to air from the site and the effects on the environment of the contaminants discharged including odour. The applicant's response identified a number of significant changes to the plant, the processes and its management that have been implemented in recent years, as well as a programme of on-going investigation, improvements to plant and development of management plans and operating procedures to achieve satisfactory business and acceptable environmental outcomes.

### **Principal issues in contention**

61. The principal issues in contention were;
  - the extent to which the applicant's operation is the source of odours experienced by the submitters;
  - whether the management of odour on the site is sufficiently effective to avoid or mitigate discharges to an acceptable extent;
  - the burning of coal in the boiler at the site when it is not permitted to be used for domestic fires.

### **Main Findings of Fact & Decision-making Assessment**

62. There is no doubt that the residents of Belfast have been for many years, and continue to be, subjected to odours that are at times offensive and objectionable. The residential population of Belfast has increased significantly in the past 10 years, and this will continue to increase in the future with new residential subdivisions and in-fill housing in existing residential areas.
63. The industrial activities in Belfast, while located in appropriate land use zones in the District Plan, exist in close proximity to long-established residential areas and are near to more recently developed residential and commercial land. The meat and animal by-product processing industries, industries renown for producing odours, have been located here for over 100 years, and the building infrastructure at these sites was constructed at a time when odour management was not considered. The combination of odour producing activities, old plant and increased residential population in sufficiently close proximity to experience the odours from a range of sources, has created a problematic environment for all parties.
64. The applicant is, from the evidence, not a major contributor to the odour problems of the residents of Belfast, but many residents, understandably, find it difficult to differentiate the sources of odour they are subjected to. This application for a discharge permit to air is the first to come to a hearing since applications from the two meat works and the wool scour, along with the former fellmongery on the applicant's site were heard and granted in the 1990s, generally for durations of 10 years. The

experience of the people of Belfast has been that, despite assurances given in those processes 10 to 15 years ago, that odours would be more assiduously managed to reduce the effects on the Belfast community, they have continued to experience offensive and objectionable odours.

65. We are not surprised that the submitters who presented at the hearing expressed frustration at the on-going problem of odours and resource consent processes that do not appear to them to deliver any improvement. These are lay people but their evidence of experience of their environment is as important to our decision-making as the evidence of the experts for the applicant. The experience of odour is subjective, and varies from person to person, but we accept the information provided in submissions fairly describes the experiences of people in Belfast in their homes, and gardens and while shopping and using recreation areas.
66. The applicant's experts considered that particular submitters could not be affected by the odours from the applicant's site due to the location of the submitters' property in relation to the applicant's site, and therefore those submissions should not be given any weight. Under the RMA, any person can make a submission on an application that has been publically notified, as this one has been, and that effects on the environment from a discharge to air to be considered are not limited to a person on their property. These effects could be experienced by any person, at any time or location within the area in which the discharge is having an effect.
67. Applications for new discharge permits to air to replace expired consents for the two meat processing works are likely to be heard this year. The discharge permit to air for the wool scour was granted in 1996 for 35 years so will expire in 2031. The frustration expressed by submitters about the fragmented decision-making relating to discharges to air from these closely located industries is understandable, and this could be alleviated to some extent if Environment Canterbury had regional plan provisions that promoted common expiry dates for discharge permits from sites that are located in close proximity and from which discharge odours are not readily distinguishable by ordinary people. We would encourage decision-makers on applications that will come after this one to consider contemporaneous consent duration for those activities that discharge the odours experienced in Belfast.
68. The area of Belfast in residential land use continues to increase, with extensive areas of new residential land approved for development located about 750 metres to the west of the applicant's site. If there is a risk that residents living in these new areas will experience offensive or objectionable odours from the applicant's discharge or from other discharges, then we would conclude that the sensitivity of the receiving environment is continuing to increase. Many of the submitters live in the area that is 180 to 600 metres west of the applicant's site and the wool scour and the meat processing plants. Residents in new areas a little further to the west are likely to be at risk, albeit a lower risk, of experiencing offensive or objectionable odours from these industries. These residents will also be using the community and retail facilities that are located on the east side of Main North Road, within the higher risk area for odours. Therefore our conclusion is that the receiving environment for this discharge is likely to become more sensitive as the residential development occurs, however this may be mitigated by the changes to the nature of the discharge from the applicant's site due to the measures to reduce the generation of odour that have already been undertaken and are proposed.
69. The amount of coal used in the boiler has reduced as a result of the cessation of the fellmongery, as considerably more heat was required to operate the wool drier. Future use of coal will be at the current lower level, and improvements have been made to

the boiler to increase its efficiency. The boiler has a cyclone system that removes large particles from the combustion gases discharged to air. The boiler system will be monitored regularly to ensure that the particulate matter in the discharge complies with best practice guidelines. The height of the boiler flue is adequate to ensure that dispersion and dilution of combustion products, such as sulphur dioxide and nitrous oxides, will mean that the discharge concentrations on the ground nearby will be much lower than national standards for these contaminants.

70. Whether coal can be used as fuel in the boiler, and the perceived inequity with coal use banned for domestic heating, is not a matter for this Hearing. Environment Canterbury has, through its now operative Regional Plan Chapter 3 Air Quality, determined that coal may be used as a fuel in large scale boilers in Christchurch, provided resource consent is obtained, while coal cannot be used in domestic open fires or new enclosed burners.

## **Section 104**

### ***The effects on the environment***

71. The actual and potential effects on the environment of allowing the activity to have regard to are:

- Positive effects;  
The applicant will be able to continue operating their commercial tannery providing economic benefits to the local, regional and national economies. The lower rate of coal burning than has occurred in the past and the changes to the boiler operation will reduce the discharge of contaminants to air, improving the air quality. Similarly, changes to the processes at the site, and improvements in the management of odour have and should continue to reduce the risk of offensive or objectionable odours affecting the residents of Belfast.
- Adverse effects;  
There is potential for odours to be discharged from this site that may create offensive or objectionable conditions for some current and future residents of Belfast. However we expect that this potential will be low given the changes to the operation, the improvements to the operation already undertaken, and if improvements to infrastructure and in management procedures, continues. There is also potential for accumulated adverse effects between this site and those other sites nearby that are discharging odour from animal product processes.

The discharge from the boiler, at the lower rate of coal burning and with the improved efficiency of the boiler, should not result in any significant adverse effects on the environment.

### ***Permitted Baseline***

72. Section 104(2) provides the discretion to disregard an effect of the activity on the environment if the plan permits such an effect. We are not invoking the discretion provided by s104(2) and have had regard to all effects of the discharge.

## **Objectives and Policies**

### ***Objectives and Policies of the CRC Statutory Instruments***

#### ***The Canterbury Regional Policy Statement***

73. We have had regard to the relevant objectives and policies of Chapter 13 of the Canterbury Regional Policy Statement (CRPS), and we concur with Ms Ashley's analysis of Policy 5 which distinguishes between new activities that discharge to air, which are to be encouraged to locate away from sensitive areas, and existing activities from which encroachment by sensitive activities (reverse sensitivity) is to be avoided. This is not a new activity, and it could be perceived that encroachment by sensitive activities over the years has not been avoided, and continues to advance. Our decision is not on that matter. The applicant is responding to the increased sensitivity of the receiving environment by changes and improvements at the site.
74. We find that the continuation of the activity is in accordance with the objectives and policies of the Regional Policy Statement.

### **The Natural Resources Regional Plan**

75. We have had regard to Chapters 1 and 3 of Natural Resources Regional Plan (NRRP). The provisions relating to this application; Objectives AQL1, AQL2 and AQL3, and Policies AQL2 and AQL5 are now operative, as are Rules AQL19 and AQL57 that established the requirement for resource consent for the discharge from this site. Policy AQL5 reflects CRPS Policy 5 discussed above, and our conclusion is the same for Policy AQL5. We consider that the activity is consistent with the provisions of the Plan.

### **Section 105 of the Act**

76. As the application is for a discharge to the environment, regard must be had to the criteria in Section 105(1) of the Act, which are:
- a) *"the nature of the discharge and the sensitivity of the receiving environment to adverse effects;*
  - b) *the applicant's reasons for the proposed choice; and*
  - c) *any possible alternative methods of discharge, including discharge into any other receiving environment".*
77. Case law requires the consent authority to find whether, in proposing a discharge of contaminants, the applicant has given adequate consideration to alternatives that would avoid, remedy or mitigate the effects of the discharge of contaminants, and then made a reasoned choice.
78. We have assessed the nature of the discharge and the sensitivity of the receiving environment, and have heard from the applicant that they have and will continue to reduce the scale of the discharge from the site, and we are satisfied that there is no practical alternative method of discharge.

### **Part 2 of the Act**

#### **Sections 5, 6 and 7**

79. In Section 5 of the Act, sustainable management is defined as “*managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –*  
*“(a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonable foreseeable needs of future generations; and*  
*(b) Safeguarding the life supporting capacity of air, water, soil and ecosystems; and*  
*(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment”*
80. Section 6 of the Act lists matters of national importance that we must recognise and provide for in this decision, but there are no matters relevant to this application. Section 7 of the Act lists matters to which we must have particular regard. These include Section 7(c) the maintenance and enhancement of amenity values and Section 7(f) the maintenance and enhancement of the quality of the environment.
81. The actions of the applicant, to reduce and improve the discharge from the tannery will, at worst, maintain, but are expected to continue to improve the quality of the environment and amenity values for the residents of Belfast. The discharge from this site is part of the applicant’s use of natural and physical resources to provide for their economic well-being, but the way they use those resources will not preclude the potential of them to provide for future generations, nor will it threaten the life-supporting capacity of the air, and their actions to address the operations at the plant will contribute to the avoidance of adverse effects on the environment.

## **Section 8**

82. The information available to us indicates that the application is consistent with the Principles of the Treaty of Waitangi.
83. This application is for the continuation of activity that can be undertaken in a way that will meet the provisions of Part 2 of the RMA.

## **Duration of Consent**

84. The application is for consent duration of 35 years. We have considered the guidance provided in Section 1.3.5 of the Regional Plan and given particular regard to the following:
- the sensitivity of the affected environment and the degree that the receiving environment may become more sensitive over time,
  - the probability of adverse effects from the activity;
  - the significance of the activity relative to the existing situation;
  - the applicant’s investment at the site;
  - the case law referred to us by Mr Swete.
85. Our conclusion is that the discharge occurs in a environment that is sensitive to the odours produced by the various processes of the meat and animal by-product processing industries, and other rural activities that are situated on the east side of Belfast. We accept that the contribution from the applicant’s site to the odours experienced in Belfast is small to moderate, but there remains potential for discharges from this site to individually or in accumulation with other discharges, to continue to adversely affect the growing population of the area. Identifying the source of an odour for residents or visitors who are affected is difficult, and there is a natural tendency to

blame any or all possible culprits. The applicant's plant is closely situated to the wool scour, which produces odours similar those discharged from the tannery. The frustration expressed by submitters to the resource consent processes for the discharge permits for the various industries comes in part from the consent processes for individual sites occurring separately and at different times. We feel the decision-making on the discharges to air from these industries would benefit from a more co-ordinated process, using common expiry dates, so that all the applications could be considered together. While there is no provision in the Regional Plan to facilitate this, and the RMA could not compel synchronised processing of future applications, we consider it a valid reason to reduce the consent duration sought so that the consent for the tannery will expire at the same time as the discharge permit for the neighbouring wool scour, being 19 December 2031. We would urge decision-makers on future applications for discharge to air from the other animal processing plants in Belfast to 'follow suit'.

86. A duration of 21 to 22 years provides a reasonably high degree of security to the applicant for this site, provided it meets the conditions of consent. The extent to which the sensitivity of the environment has increased should be clearly apparent by that time, and the contribution from this site to the 'cocktail' of odours experienced in Belfast should be better understood. Failure of the applicant to comply with the consent conditions, and cause offensive or objectionable odours could result in a review of the conditions, to deal with the adverse effect including requiring the consent holder to adopt the best practicable option to remove or reduce the adverse effect.

## **Decision**

87. Having considered all of the relevant matters under Section 104 and Part II, as discussed above, it is our decision that the application is granted to expire on 19 December 2031, subject to conditions.

88. The reasons for this decision are:

- The adverse effects on the environment of the activity can be avoided or mitigated; and
- The activity is in accord with the objectives and policies of the Canterbury Regional Council's Regional Policy Statement and Natural Resources Regional Plan.

## **Resource Consent**

To:

Discharge contaminants into air.

Duration:

Consent expires 12 December 2031

## **GENERAL**

1. The discharges to air shall be only odorous and non odorous compounds from the operation of a tannery, and combustion products from the operation of a coal fired

boiler of up to a 1.8 megawatt net capacity, at Station Road, Belfast, at or about map reference NZMS 260 M35:8075–5088, as described in the application.

2. The discharges shall not cause odour or deposited particulate material, which is offensive or objectionable beyond the boundary of the property on which the consent is exercised.
3. (a) Within 6 months of the issue of this consent a Site Environmental Management Plan shall be prepared and a copy provided to Canterbury Regional Council.  
 (b) The Management Plan shall provide details of procedures for managing the generation of odours and preventing the discharge of odours from the site.  
 (c) The Management Plan shall include, but not be limited to, operating and maintenance procedures for the following equipment and processes:
  - (i) Biofilter
  - (ii) Wastewater sumps, screens and pumps
  - (iii) Sulphide oxidation
  - (iv) Chromium precipitation and recovery
  - (v) Wastewater balance tank
  - (vi) Dissolved air flocculation unit
  - (vii) Redox monitoring unit (including calibration procedure)
  - (viii) Final wastewater discharge pump
  - (ix) Putrescible solid waste storage and disposal
4. The Canterbury Regional Council may, once per year, on any of the last five working days of April or October, serve notice of its intention to review the conditions of this consent for the purposes of:
  - (i) Dealing with any adverse effect on the environment which may arise from the exercise of this consent and which it is appropriate to deal with at a later stage; or
  - (ii) Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment.

#### TANNERY

5. The discharge of gases from the vents of all skin processing vessels shall be via a biofilter that is designed, constructed and operated to effectively treat the gases generated.
6. (a) All liquors with the potential to produce hydrogen sulphide shall be kept separate from other wastewater.  
 (b) The separated liquors shall have any sulphide present oxidised prior to mixing with other wastewater.
7. The consent holder shall ensure that all solid wastes are removed from the site as soon as is practicable.
8. The consent holder shall keep a record of all odour complaints received. This record shall include:
  - (i) Location of complainant where odour was detected;
  - (ii) Date, time and duration of odour detection;
  - (iii) Estimated wind strength and direction when odour detected;

- (iv) General description of weather conditions (fine, dry, high/low cloud cover, temperature) at time odour detected;
- (v) Any possible cause of odour complained of, including whether or not the cause was an extraordinary event;
- (vi) Any corrective action taken and measures implemented to prevent further occurrence.

This record shall be provided to the Canterbury Regional Council upon request.

## BOILER

9. The coal burning rate shall not exceed:
  - (i) 300 kilograms per hour, and
  - (ii) 2.5 tonnes per day, averaged over any continuous 7 day period.
10. (a) The concentration of sulphur in the coal fuel shall not exceed one per cent, on a weight basis.
 

(b) The ash content of the coal fuel shall not exceed four per cent, on a weight basis.
11. (a) The boiler discharge shall occur via a stack at a height at least 26 metres above ground level.
 

(b) The discharge shall be directed vertically into air and shall not be impeded by any obstruction above the stack that decreases the vertical efflux velocity below that which would occur in the absence of such obstruction.

(c) The boiler discharge efflux velocity shall be at least 10 metres per second at the maximum rated output of the boiler.
12. The opacity of the discharge from the boiler stack shall not be darker than the Ringelmann Shade 1 as determined in accordance with the New Zealand Standard 5201:1973, except:
  - (i) In the case of a cold start, for a period not exceeding 30 minutes in the first hour of operation; and
  - (ii) For a period not exceeding a total of four minutes in each succeeding hour of operation.
13. The consent holder shall keep a record of the amount of coal used each week in the boiler plant. This record shall contain information on the coal:
  - (i) Type;
  - (ii) Quantity in kilograms;
  - (iii) Sulphur content; and
  - (iv) Ash content.

This record shall be provided to the Canterbury Regional Council annually by 31 March or upon request.

14. (a) The concentration of particulate matter, the efflux velocity, and the temperature of the combustion gas discharged from the boiler stack shall be measured at least once every year.
  - (b) Each test measurement shall occur when the boiler is operating at greater than 50 percent of the normal maximum fuel burning rate.
  - (c) The method of sampling and analysis shall be ISO 9096: 2003, ASTM D3685- 98, USEPA Method 17 or an equivalent method. A description of any equivalent method to be used shall be provided to the Canterbury Regional Council.
  - (d) The organisation performing the testing must be currently accredited under ISO 17025, to undertake the method used to perform the testing.
  - (e) Results shall be adjusted to zero degrees Celsius, 101.3 kilopascals, 12 percent carbon dioxide on a dry gas basis.
  - (f) A copy of the test results shall be provided to the Canterbury Regional Council within 10 working days of receipt by the consent holder.
  15. The concentration of suspended particulate matter in the boiler stack immediately prior to the point of discharge, measured in accordance with Condition 14(c), shall not exceed 250 milligrams per cubic metre of air, adjusted to zero degrees Celsius, 101.3 kilopascals, 12 percent carbon dioxide on a dry gas basis.
  16. The boiler shall be serviced at least once every year, by a person competent in the servicing of such appliances. This servicing shall include:
    - (i) Adjustment if necessary of the fuel to air ratio; and
    - (ii) Testing of the ratio of combustion gases discharged i.e., carbon monoxide, carbon dioxide and oxygen, using a suitably calibrated instrument.
- Service reports shall be prepared and retained, and copies shall be provided to the Canterbury Regional Council upon request.
17. (a) The boiler discharge shall be via a multiclone grit arrester treatment system.
  - (b) The treatment system shall be operating at all times the boiler is discharging.
  - (c) This record shall be provided to the Canterbury Regional Council upon request.

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17. (a) The boiler discharge shall be via a multiclone grit arrester treatment system.
- (b) The treatment system shall be operating at all times the boiler is discharging.
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*R. F. Fendall*

**Hearing Commissioners**

17th day of February 2010