

MEETING OF THE REGULATION HEARING COMMITTEE

TO THE CHAIRPERSON AND MEMBERS OF THE
COMMITTEE

MEMBERSHIP OF THE COMMITTEE

Cr A G Neill (Chairperson)
Cr A S Carroll
Cr J M Waters

A meeting of the Committee will be held on
Friday, 26 January 2007 at 9.00 a.m.

VENUE: Council Chamber
First Floor
Pegasus Building
Environment Canterbury
58 Kilmore Street
CHRISTCHURCH

BUSINESS: As per Order Paper attached

Dr Bryan Jenkins
CHIEF EXECUTIVE

**RECOMMENDATIONS IN REPORTS ARE NOT TO BE TAKEN
AS COUNCIL POLICY UNTIL ADOPTED BY COUNCIL**

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COMPLIANCE WITH LOCAL GOVERNMENT ACT 2002 DECISION-MAKING REQUIREMENTS

Except as below, a statement of compliance and a completed decision checklist is required for any agenda item on a council committee or the council recommending that a decision be made. This will be the responsibility of the person signing off the agenda item.

The compliance statement and checklist will not be used for:

- Recommendations that information be received or that the Council make a decision.
- Decisions taken under the Resource Management Act 1991 or the Biosecurity Act 1993 in relation to resource consents, decisions required when following the procedures set out in Schedule 1 of the Resource Management Act 1991, other permissions, submissions on plans, or references to the Environment Court.
- Decisions taken to proceed with enforcement procedures under various primary or secondary legislation or regulations, including procedures under the Resource Management Act 1991, the Biosecurity Act 1993, the Local Government Act 2002, and Environment Canterbury Bylaws.
- Administrative and personnel decisions that are entirely internal to Environment Canterbury.
- Other decisions where the procedures to be followed are set out in Legislation.

COMPLIANCE STATEMENT

The council committee (or the council) must formally certify that:

- (a) It is satisfied that it has sufficient information about the options and their benefits and costs, in terms of the region's social, economic, environmental and cultural well-being and the effects on community outcomes, bearing in mind the significance of the decisions.
- (b) It is satisfied that it knows enough about and has given adequate consideration to the views and preferences of affected and interested parties bearing in mind the significance of the decision.

INFORMATION CHECKLIST

(a)	A Statement of the Proposed Decision
(b)	A Statement of the Objective of the Proposed Decision and the Issue or Problem being addressed
(c)	A list of all reasonably practicable options, (including doing nothing).
(d)	For each option in (c): An evaluation of the Benefits and Costs, in terms of the region's social, economic, environmental and cultural well-being.
(e)	For each option in (c): A statement of the extent to which community outcomes would be promoted or achieved in an integrated and efficient manner.
(f)	For each option in (c): A statement of the Impact, if any, on Environment Canterbury's capacity to undertake its statutory responsibilities
(g)	If the Proposed Decision is a significant decision in relation to land or a body of water, a statement of how Maori values have been taken into account
(h)	A Statement of significant inconsistencies, if any, with any Existing Policy, Plan or Legislation arising from the Proposed Decision.
(i)	A statement how the views and preferences of affected or interested persons have been given adequate consideration during the definition of the problem or issue, the objective, the assessment of options and the development of the proposed decision, including the particular contribution of Maori to the decision-making process.

Notes:

The significance of proposals and decisions determines how much time, money and effort is put into exploring and evaluating options and obtaining the views of affected and interested parties. The significance of proposals and decisions is determined through reference to criteria contained in the policy on significance.

The policy on significance together with Section 76 of the Local Government Act 2002 set out the Council's requirements in relation to decisions. Some decisions can only be made through the Long-Term Council Community Plan, or after the Special Consultative Procedures set out in the Act have been used, (refer to the policy on significance and the Act).

All decisions of Environment Canterbury are subject to the decision-making requirements of section 76 of the Act unless inconsistent with specific requirements of other legislation.

ENVIRONMENT CANTERBURY

REGULATION HEARING COMMITTEE

ORDER PAPER

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2. MINUTES OF PREVIOUS MEETINGS – 24 NOVEMBER AND 15 DECEMBER 2006
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MATTERS FOR DECISION BY THE COMMITTEE

4. RESOURCE CONSENT APPLICATION FOR CONSIDERATION
5. APPOINTMENT OF COMMISSIONERS TO HEAR AND DECIDE RESOURCE CONSENT APPLICATIONS
6. APPOINTMENT OF COMMISSIONER TO HEAR AND DECIDE OBJECTION TO RESOURCE CONSENT DECISIONS

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8. EXTRAORDINARY AND URGENT BUSINESS
9. NEXT MEETING – to be confirmed
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REGULATION HEARING COMMITTEE

MINUTES OF THE MEETING HELD IN THE COUNCIL CHAMBER, PEGASUS BUILDING,
ENVIRONMENT CANTERBURY, 58 KILMORE STREET, CHRISTCHURCH ON 24
NOVEMBER 2006 AT 9.00 A.M.

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PRESENT

Councillors A G Neill (Chairperson), R A Budd and J F Slee.

MANAGEMENT AND STAFF PRESENT

Philippa Wingate (Team Leader Consents Investigations), Brent Hamilton (Senior Consents Investigating Officer), Christopher Clarke (Investigating Officer), and Donald Fraser (Consents Hearings Officer).

1. APOLOGIES

Cr Budd replaced Cr Waters.

2. MINUTES OF PREVIOUS MEETING

The minutes of the meeting held on 20 October 2006 were confirmed as a true and accurate record.

3. MATTERS ARISING

Nil.

MATTERS FOR DECISION

4. RESOURCE CONSENT APPLICATIONS FOR CONSIDERATION BY THE COMMITTEE

4.1 ELMWOOD STORAGE LIMITED – CRC981411.4

The Committee was advised that the application was to change a condition of their existing consent to discharge stormwater and vehicle wash water into land at a campervan rental operation located at Export Avenue, Harewood, Christchurch.

As background, the Committee noted that the site was part of an industrial subdivision constructed in 2000 and included six other industrial lots.

Mr Hamilton said that the existing stormwater consent required the permit holder to treat stormwater and dispose of it into land via a swale (soakage basin) designed to retain all runoff from a 1 in 50 year storm event. The soakage basin was constructed with insufficient capacity to meet condition 7 of their current consent.

No submissions were received to the notified application.

The applicant now proposed to pass stormwater from an existing 1775 square metres of hardstanding and wastewater from a vehicle washing bay through a cyclonic oil and sediment trap before entering a first flush basin designed to dispose of the first 25 millimetres of rainfall via slow infiltration into land via a grassed soil media. Stormwater in excess of the first flush basin capacity would be disposed of via a soakpit into land.

Mr Hamilton said that the applicant was not proposing to alter the concentration or volume of contaminants in the discharge generated from the site. Mr Hamilton considered that the proposed change in conditions would likely result in a less than minor reduction in the level of suspended solid removal.

Mr Hamilton proposed further mitigation measures including a requirement to inspect the cyclonic oil and sediment trap every three months and remove accumulated sediment and hydrocarbons; a requirement to keep and provide records of all inspection and maintenance of the stormwater system and a requirement not to wash vans during times the first flush basin was at capacity to prevent treated wastewater entering the soakpit.

With respect to alternatives, Mr Hamilton noted that a sewer network had been recently constructed within 120 metres of the site as part of the Russley Business Park industrial park.

The Committee, in discussing possible conditions, requested further information from the applicant regarding further sampling conditions and consideration that the wastewater be disposed of to a sewer network when it became available.

The Committee adjourned consideration of this application.

4.2 ASHBURTON DISTRICT COUNCIL – CRC063822

The Committee was advised that the application was to take and use groundwater for community water supply purposes at Dromore Station Road, Dromore. The applicant did not propose to seek any increase in rate or volume of abstraction for its current consent. The applicant had sought a duration of 35 years.

A total of two submissions were received to the notified application, none of which had reserved the right to be heard.

The Committee noted that as mitigation, the applicant would install a measuring and recording device at the point of take and had also proposed limiting the annual volume of water to be taken.

Mr Just referred to the assessment of actual and potential effects of the activity and said that the potential adverse effects included effects on surrounding groundwater users, effects on other groundwater users, and effects on tangata whenua values.

With respect to effects on surrounding groundwater users, Mr Just said that modelling carried (results from a constant discharge test undertaken by the applicant) out by the applicant indicated that any effects on surrounding groundwater users would be *de minimis*

With respect to other groundwater users. Mr Just said that Policy 7 of the Council's Regional Policy Statement (RPS) provided for basic human and animal needs to be met before other abstractive users. Mr Just also said that the granting of this consent would provide reliability of supply for a previously authorised community water supply.

Mr Just further commented that the applicant had commented that as the overall volume of this abstraction would remain unchanged from that previously allocated, the adverse effects on other groundwater users would be minor.

Mr Just noted that Te Runanga o Ngai Tahu submitted in opposition to the application on the grounds that concern with cumulative effects on the surface and groundwater flows. However, Mr Just said that as the assessment had deemed the effects of the proposed activity to be minor, any adverse effects on tangata whenua would be *de minimis*.

Mr Just recommended that the consent application be granted subject to the conditions as recommended.

With respect to duration, Mr Just said that the issue of durations on water permits had been highlighted by Mr Fietje, the Council's Principal Consents Advisor who issued a memorandum on 7 November 2005 concluding that for applications that had not been publicly notified, a ten year duration would be considered appropriate, given uncertainties and long timeframes. This same principal on durations would apply to applications being considered by council committee or hearings.

However, Mr Just said that in this instance the application was for a relatively small abstraction; the RPS provided for human needs before other abstractive

uses, and that the water abstracted for community supply was unlikely to have any long-term effects on the environment. On that basis, Mr Just recommended that the consent be granted with a duration of 35 years.

The Committee discussed the question of the proposed duration. The Committee considered that where the proposed activity was for domestic/community supply, the starting point for any duration should be 35 years. The Committee did not consider that the cost and time taken by reporting officers to set out all the issues relating to proposed durations was warranted when the application was either a domestic or community supply take.

The Committee were not aware of any directive from the Council regarding the requirement to consider 10 year durations for water permits. The Committee was also not aware that there was a "council policy" requiring public notification of consent applications for water permits where an applicant had requested a duration greater than 10 years.

The Committee amended Condition 3 to read:

'Water shall only be used for community water supply'.

The Committee was satisfied that consent be granted as the proposed activity did not conflict with the purpose of the Resource Management Act given the recommended and amended conditions.

Resolved

That the Committee acting pursuant to a delegation of the Council of 22 October 2004, having had regard to the requirements of Section 104 of the Resource Management Act 1991, grants consent, pursuant to Section 105 of the said Act, to application CRC063822 by Ashburton District Council, as amended, and a duration of 35 years, and for the reason stated.

Cr Budd/Cr Slee

4.3 ASHBURTON DISTRICT COUNCIL – CRC062768

The Committee was advised that the application was to take and use groundwater for community water supply purposes at Winchmore School Road, Winchmore. The applicant did not propose to seek any increase in rate or volume of abstraction for its current consent. The applicant had sought a duration of 35 years.

One submission in support was received to the notified application but had not reserved the right to heard.

Mr Clark referred to the assessment of actual and potential effects and said that the effects included effects of the take on surrounding groundwater users, and effects on other groundwater users.

With respect to effects on surrounding groundwater users, Mr Clark said that modelling carried (results from a constant discharge test undertaken by the applicant) out by the applicant indicated that any effects on surrounding groundwater users would be *de minimis*

With respect to other groundwater users. Mr Clark said that Policy 7 of the Council's Regional Policy Statement (RPS) provided for basic human and animal needs to be met before other abstractive users. Mr Clark also said that the granting of this consent would provide reliability of supply for a previously authorised community water supply.

Mr Just recommended that the consent application be granted subject to the conditions as recommended.

With respect to duration, Mr Just said that the issue of durations on water permits had been highlighted by Mr Fietje, the Council's Principal Consents Advisor who issued a memorandum on 7 November 2005 concluding that for applications that had not been publicly notified, a ten year duration would be considered appropriate, given uncertainties and long timeframes. This same principal on durations would apply to applications being considered by council committee or hearings.

However, Mr Just said that in this instance the application was for a relatively small abstraction; the RPS provided for human needs before other abstractive uses, and that the water abstracted for community supply was unlikely to have any long-term effects on the environment. On that basis, Mr Just recommended that the consent be granted with a duration of 35 years.

The Committee discussed the question of the proposed duration. The Committee considered that where the proposed activity was for domestic/community supply, the starting point for any duration should be 35 years. The Committee did not consider that the cost and time taken by reporting officers to set out all the issues relating to proposed durations was warranted when the application was either a domestic or community supply take.

The Committee were not aware of any directive from the Council regarding the requirement to consider 10 year durations for water permits. The Committee was also not aware that there was a "council policy" requiring public notification of consent applications for water permits where an applicant had requested a duration greater than 10 years.

The Committee amended the following conditions:

Condition 3

To read

"Water shall only be taken for community water supply"

Condition 9

To read

"The consent holder shall take all practicable steps to avoid leakage from pipes and structures in the reticulation system".

The Committee was satisfied that consent be granted as the proposed activity did not conflict with the purposes of the Resource Management Act given the recommended and amended conditions.

Resolved

That the Committee acting pursuant to a delegation of the Council of 22 October 2004, having had regard to the requirements of Section 104 of the Resource Management Act 1991, grants consent, pursuant to Section 105 of the said Act, to application CRC062768 by Ashburton District Council, subject to the conditions as amended, and a duration of 35 years, and for the reason stated.

Cr Slee /Cr Budd

5. QUESTIONS

Nil.

6. EXTRAORDINARY AND URGENT BUSINESS

Resolved

That the appointment of Commissioners to hear and decide resource consent applications be considered extraordinary and urgent business.

Cr Budd/Cr Neill

6.1 KANUKA SYNDICATE LIMITED – CRC071358

The Committee was advised that an application was lodged to dam 60,000 cubic metres of water into a 1.7 metre high ring dam at Tindalls Road, Westerfield.

Mr Fraser said that the applicant had requested that a Commissioner be appointed as Cr A R McKay was a director of the company.

Mr Fraser said it was recommended that a Commissioner be appointed to avoid any potential conflict of interest.

Resolved

That the Committee appoint Robert Batty as a Commissioner in respect of resource consent application CRC071358 by Kanuka Syndicate Limited to:

- (a) decide whether the resource consent application shall be processed with or without notification with the full powers of the Council as a consent authority;*
- (b) decide the resource consent application with or without a hearing with the full powers of the Council as a consent authority; and*
- (c) determine any preliminary matters associated with (a) and (b) with the full powers of the Council as a consent authority.*

7. NEXT MEETING

Scheduled for 1 December 2006.
Membership: Councillors McKay, Budd and Woods.

8. ADJOURNED

The Chairperson adjourned the meeting at 11.20 a.m.

RESUMPTION OF REGULATION HEARING COMMITTEE

Held in the Waitaki Room, 1st Floor, Pegasus Building, Environment Canterbury, 58 Kilmore Street, Christchurch on 6 December 2006 starting at 1.10 p.m.

The meeting was resumed to enable the Committee to complete consideration of the resource consent application CRC981411.4 by Elmwood Storage Limited.

The consideration of this application had been originally adjourned at the 24 November 2006 meeting for the applicant to provide further information and comment on possible proposed conditions.

Mr Hamilton advised that the proposed wording for further sampling had been sent to the applicant for comment. A response had been received on the 30 November 2006 which had strongly opposed the requirement for sampling.

With respect to the requirement to connect to the sewer line, Mr Hamilton said that advice received from the Council's Solicitor indicated that such a condition could only be placed on the consent if the applicant had agreed to it. The Committee noted that the applicant had not opposed the inclusion of such a condition.

The Committee was satisfied that consent be granted subject to the conditions recommended. The Committee considered that the consent authority needed to be satisfied as to the quality of the wastewater being discharged and the results of monitoring would give a good indication of the performance of the treatment systems and the likely contaminant loadings that could enter the soakpit in combination with stormwater during a rainfall event that exceeded the capacity of the first flush basin.

The Committee was further satisfied that the consent authority had the ability to initiate a review of the consent conditions under Condition 30 should the results indicate concentrations were excessive.

The Committee considered that the proposed activity did not conflict with the provisions of the Resource Management Act given the recommended conditions.

Resolved

That the Committee acting pursuant to a delegation of the Council of 22 October 2004, having had regards to the requirements of Section 104 of the resource Management Act 1991, grants consent, pursuant to Section 105 of the Said Act, to application CRC981411.4 by Elmwood Storage Limited subject to the following conditions:

- (1) The discharge shall only be:
 1. Stormwater from 1775 square metres of hardstand; and
 2. Wastewater from a vehicle wash bay.within lot 2 DP 304904, labelled as 'Applicants Site' and shown on Plan CRC981411.4A which forms part of this consent.
- (2) Stormwater shall be discharged onto and into land at map reference NZMS 260 M35:743-482.

STORMWATER SYSTEM

- (3) Stormwater from hardstand areas shall be directed via kerb and channel and sumps to a cyclonic oil and sediment trap before being discharged to a first flush basin as shown on Plan CRC981411.4B (Drawing No: 9255-01A) which forms part of this consent.
- (4) Stormwater volumes in excess of the capacity of the first flush basin shall be diverted via a splitter box weir and discharged to a soakpit as shown on Plan CRC981411.4B.
- (5) The cyclonic oil and sediment trap shall:
 3. Be designed in general accordance with the details "Humeceptor STC3" on Plan CRC981411.4C (Drawing No: 9255-A) which forms part of this consent;
 4. Treat stormwater flows up to 18 litres per second;
 5. Not bypass stormwater flows if the outlet is restricted from high water levels in the first flush basin;
 6. Remove at least 75 percent of total suspended sediment; and
 7. Have a hydrocarbon trapping capacity of at least 1020 litres.
- (6) The splitter box weir shall be constructed in general accordance with the details labelled "Splitter Box" on Plan CRC981411.4C
- (7) The first flush basin shall:
 8. Be constructed in general accordance with Plan CRC981411.D (Drawing No:9255-B), which forms part of this consent;
 9. Be designed to retain and dispose of at least the first 25 millimetres of rainfall ('first flush');
 10. Have a capacity of at least 44 cubic metres;
 11. Be lined with a layer of topsoil with a minimum thickness of 200 millimetres; and
 12. Be vegetated with grass.

- (8) The soakpit shall be constructed in accordance with the details labelled "Soakpit" on Plan CRC981411.4C.
- (9) The first flush basin and soakpit shall have sufficient hydraulic capacity to retain and dispose of all stormwater from the hardstand areas for upto and including a 2% Annual Exceedance Probability (AEP) storm event.

WASTEWATER SYSTEM

- (10) Vehicle wash water shall be collected via a sump in the vehicle wash bay and passed through a petrol and oil interceptor before entering the discharge line to the cyclonic oil and sediment trap and discharged only to the first flush basin as shown on Plan CRC981411B.
- (11) The petrol and oil interceptor shall be installed as per Plan CRC981411.E (Sheet 122/9), which forms part of this consent.
- (12) At least one month prior to the reconstruction of the stormwater system, the consent holder shall submit to the Canterbury Regional Council (ATTN: RMA Compliance and Enforcement Manager) all design plans of the stormwater system to be installed.
- (13)
 13. A certificate shall be submitted to the Canterbury Regional Council (Attention: RMA Compliance and Enforcement) within one month of completion of the stormwater systems to certify that the stormwater systems have been installed in accordance with Conditions 3 to 12 of this discharge permit.
 14. The person responsible for designing the stormwater systems, detailed in conditions 3 to 12, or a suitably qualified or experienced person shall sign the certificate.

WASTEWATER OPERATION

- (14) A maximum of three vans shall be washed in the vehicle wash bay per day and a maximum of 450 litres per day shall be discharged.
- (15) Van washing shall not occur during times when stormwater has exceeded the capacity of the first flush basin to ensure compliance with condition 10.
- (16) All practicable measures shall be taken to ensure the petrol and oil interceptor and cyclonic oil and sediment trap functions effectively. These measures may include, but are not limited to:
 15. Use of 'Powerwash' detergent, or equivalent product;
 16. Minimising detergent use.

MAINTENANCE AND INSPECTION

- (17) The van wash petrol and oil interceptor shall be inspected at least once every three months:
 17. Within 5 days of each inspection any accumulated debris and/or sediment greater than 50 millimetres thickness shall be removed; and

18. Within 5 days any visible accumulation of hydrocarbons shall be removed.
- (18) The cyclonic oil and sediment trap shall be inspected at least every three months:
 19. Within 5 days of each inspection any accumulated debris and/or sediment greater than 200 millimetres in depth shall be removed; and
 20. Within 5 days any visible accumulation of hydrocarbons shall be removed.
- (19) The first flush basin shall be maintained to ensure that the grass cover is in a healthy state. This maintenance shall include, but is not limited to:
 21. Maintaining grass at a minimum length of 100 millimetres;
 22. Removal of weed vegetation; and
 23. Re-sowing of grass where erosion or die-off has resulted in bare or patchy soil cover.
- (20) The first flush basin shall have an infiltration rate not exceeding 50 millimetres per hour and not less than 20 millimetres per hour as determined using a double ring infiltrometer test or equivalent method.
- (21) The consent holder shall keep records of the inspection and maintenance of the stormwater system and shall provide the records to the Canterbury Regional Council (Attention: RMA Compliance & Enforcement) upon request.

SITE MANAGEMENT

- (22) In the event of a spill of a hazardous substance the consent holder shall:
 24. Take all practicable measures to prevent the hazardous substance being discharged into land via the stormwater system;
 25. Remove the hazardous substance from the stormwater system; and
 26. Determine if the hazardous substance has entered the first flush basin and/or soakpit.
- (23) In the event that a hazardous substance enters the first flush basin or soakpit the consent holder shall:
 27. Record and provide to the Canterbury Regional Council within 24 hours of a spill:
 28. the date, time, location and volume of the spill;
 29. the contaminant spilt;
 30. measures taken to prevent the spilt contaminant being discharged into land via the stormwater system;
 31. Determine the extent of the soil considered to be contaminated;
 32. Remove any sand or soil considered to be contaminated;

- 33. Replace any contaminated soil with soil that is uncontaminated; and
 - 34. Provide a report, detailing action taken under condition 23(b), (c) and (d), to the Canterbury Regional Council (Attention: RMA Compliance & Enforcement Manager) within one month of the detection of a hazardous substance entering land.
- (24) Any material removed in accordance with Conditions 17, 18, 22 and 23(c), shall be disposed of at an appropriate facility.

MONITORING

(25)

- 35. Samples of wastewater during a time when van washing is occurring shall be collected of the discharge from the cyclonic oil and sediment trap;
- 36. For the purposes of obtaining a representative sample of wastewater sampling shall not occur during a rainfall event;
- 37. The samples shall be collected within three months after the commencement of this consent; and
- 38. At least once every two years thereafter.

(26)

The water samples collected under condition 25 shall be analysed for the following variables:

Total Suspended Solids	mg/l
Total petroleum hydrocarbons	mg/l
Total Faecal Coliform	cfu per 100 ml
Nitrate Nitrogen	mg/l

(27) All water samples required under this consent shall be:

- 39. Collected by a suitably qualified or experience person in accordance with the most relevant Australian/New Zealand standard; and
- 40. Analysed using the most appropriate method, by a laboratory that is certified for the method by an accreditation authority such as International Accreditation New Zealand.
- 41. Results of the analyses undertaken in accordance with condition 20, including the name of the person who collected the samples, the methods used and the date the samples were collected, shall be provided to the Canterbury Regional Council (Attention: RMA Compliance & Enforcement Manager) within one month of the date the samples were collected.

(28)

42. At least every five years a representative soil sample from the swale from a depth of 50 millimetres below the ground surface at the point of lowest elevation shall be taken and analysed for the following determinands:

Total Lead (milligrams per kilogram dry weight soil)

Total Chromium (milligrams per kilogram dry weight soil)

Total Nickel (milligrams per kilogram dry weight soil)

Total Copper (milligrams per kilogram dry weight soil)

Total Zinc (milligrams per kilogram dry weight soil)

Total Cadmium (milligrams per kilogram dry weight soil)

Benzo(a)pyrene (milligrams per kilogram dry weight soil)

43. The laboratory carrying out metal analyses required under this condition shall be accredited to ISO Guide 25, for those analyses either by International Accreditation New Zealand or by an organisation with a mutual recognition agreement with International Accreditation New Zealand established in accordance with ISO guide 58. The laboratory carrying out analysis of Benzo(a)pyrene required under this condition shall be accredited to ISO Guide 25, for analyses of similar organic compounds either by International Accreditation New Zealand or by an organisation with a mutual recognition agreement with International Accreditation New Zealand established in accordance with ISO Guide 58. The method of analysis for Benzo(a)pyrene shall be a recognised USEPA method. The results of these analyses, the date and time that the sample was taken and a report interpreting the results in relation to effects on soil and groundwater quality shall be provided to the Canterbury Regional Council within two months of the taking of each sample.

- (29) If any one determinand measured in accordance with condition (6) exceeds the soil concentrations specified below, 100 millimetres of topsoil from the swale which the non-complying sample was taken shall be removed and replaced by 300 millimetres of uncontaminated topsoil. The area of soil excavation shall include the full length of the swale for a width of at least 700 millimetres either side of the swale longitudinal centerline.

MAXIMUM SOIL CONCENTRATIONS (milligrams per kilogram dry weight soil)

Total Lead 300

Total Chromium 600

Total Nickel 35

Total Copper 140

Total Zinc 300

Total Cadmium 3

Benzo(a)pyrene 5.7

ADMINISTRATION

(30)

44. Wastewater disposal via the stormwater system shall cease within six months of a connection to a reticulated sewerage system being available.

45. For the purpose of this condition, "available" means:

46. A sewerage pipeline network system passes within 30 metres of the property boundary; and

47. The network operator will accept the discharge

(31) The Canterbury Regional Council may annually, on the last working day of April, serve notice of its intention to review the conditions of this consent for the purposes of:

48. Dealing with any adverse effect on the environment which may arise from the exercise of this consent and which is appropriate to deal with at a later stage; or

49. Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or

50. Complying with the requirements of a relevant rule in an operative regional plan.

The Chairperson closed the meeting at 1.30 p.m.

CONFIRMED

DATE _____ CHAIRPERSON

ENVIRONMENT CANTERBURY
REGULATION HEARING COMMITTEE

MINUTES OF THE MEETING HELD IN THE WAITAKI ROOM, FIRST FLOOR, PEGASUS BUILDING, ENVIRONMENT CANTERBURY, 58 KILMORE STREET, CHRISTCHURCH ON FRIDAY, 15 DECEMBER 2006 AT 9.00 A.M.

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- 27. NEXT MEETING – 27 JANUARY 2007
- 28. CLOSURE

PRESENT

Councillors A G Neill (Chairperson), R M Kirk and R H M Johnston.

IN ATTENDANCE

John Iseli, Warwick Pascoe, Paul Sullivan, Dr Bruce McCabe, Jim Lovell-Smith, Isla Hepburn and Robert Rose.

MANAGEMENT AND STAFF PRESENT

Susan Aitken (Team Leader, Consents Investigations), Catherine Challies (Investigating Officer), Rosemary Miles (Investigating Officer), Brent Hamilton (Senior Investigating Officer), Ivan Holland (Team Leader Consents Investigations) and Donald Fraser (Consents Hearings Officer).

1. APOLOGIES

Cr Johnston for lateness.

2. MINUTES OF PREVIOUS MEETING

The minutes of the meeting held on 1 December 2006 were confirmed as a true and accurate record.

3. MATTERS ARISING

Nil.

MATTERS FOR DECISION

4. RESOURCE CONSENT APPLICATIONS FOR CONSIDERATION BY THE COMMITTEE

4.1 FOOD PROCESSORS LIMITED - CRC070220, CRC070221 AND CRC070222

The Committee was advised that the applications were associated with a proposed new dairy factory at Studholme, South Canterbury. The applications related to proposed discharges to land, water and air. The Committee noted that the applicant had sought 20 year durations for all three applications.

Cr Johnston disclosed that he had a relationship with Waimate/Studholme in that he had married a Studholme person.

A total of six submissions were received to the notified applications, one of which Royal Forest and Bird Society had reserved the right to be heard. Following consultation by the applicant, the right to be heard was subsequently withdrawn.

The Committee noted that one submission in support was received from Waimate District Council who had supported the proposal by the applicant to provide 36 pellet fires to Waimate, which would include a mix of heat pumps, pellet fires and/or low emission wood burners.

Discharge to air CRC070222

Mr Iseli presented the officers report for this application.

Mr Iseli said that the discharges to air would be contaminants from two coal fired boilers, one diesel oil-fired boiler, milk powder driers, one milk powder packing plant and storage and irrigation of wastewater.

The applicant proposed to only one 12MW coal fired boiler and one milk powder drier and packing line during the winter months, and offset the contribution to local winter particulate matter (PM₁₀) concentrations with the replacement of at least 36 open fires in Waimate with the other heating solutions. The applicant had also agreed to monitor PM₁₀ concentrations in

Studholme during the winters of 2007 and 2008 to verify the extent of cumulative effects.

With respect to the adverse effects of particulate matter, Mr Iseli said that the modelling carried out by the applicant indicated that any contribution to background PM₁₀ concentrations in Waimate would be relatively small, less than 2% of the National Environment Standards and such an additional increment was not regarded as significant. The Committee noted that calculations showed that replacing 36 open fires with 36 other heating solutions would reduce total Waimate emissions by 4% resulting in a reduction of PM₁₀ concentrations.

With respect to effects on amenity values, Mr Iseli said that particulate deposition was not expected to cause any significant impact at neighbouring properties as the applicant also proposed good practice bag filtration. The applicant also proposed to monitor the pressure differential across filters so that any damage could be promptly detected and bags replaced.

Mr Iseli considered that with the mitigation measures proposed, any adverse effects of the proposed discharges were likely to be minor.

Discharges to land and water CRC070220 and CRC070221

Mr Sullivan presented the officers report for these two applications.

Mr Sullivan said that the applicant proposed to discharge up to 2200 cubic metres per day of condensate and wastewater to land and would be irrigated over an area of approximately 904 hectares. The discharge into the artificial wetland would occur when the soils in the irrigation area were saturated or in the event of emergencies.

The applicant also proposed to discharge up to 30 litres per second of condensate (water that was distilled from milk during the process of milk solids concentrations prior to spray drying) and stormwater to an artificial wetland for treatment prior to being discharged into Waimate Creek. The stormwater would be from roofs and hard stand areas associated with the milk processing plant.

The applicant had constructed about 10 hectares of wetland to renovate factory wastewater prior to discharge to the Waimate Creek. Mr Sullivan said the wetlands had provided an amenity and wild life refuge, as well as renovating the vegetable processing wastewater to a standard suitable for discharge to Waimate Creek.

With respect to the assessment of actual and potential effects, Mr Sullivan was satisfied that:

- wastewater would be irrigated to land at a rate that would not exceed one half of the soil water holding capacity and in a manner that would not result in surface runoff
- the proposed move to dairy processing and irrigation of dairy processing wastewater to land would have any significant adverse effects on groundwater quality
- any effects of the discharge on surface water would be acceptable given the proposed mitigation measures

- any effects of the discharges on soil would be relatively small and of a short term duration
- the proposal by the applicant to limit the applicant rate and nitrogen loading rate would ensure that there was no effects on down gradient wells owners
- any effects on aquatic ecosystems would be minor
- any adverse effects of odour on air quality from the discharges would be minor, given the recommended conditions.

The Committee was satisfied that the three resource consent applications be granted and for the duration of 20 years as applied for.

A set of recommended conditions for the applications had been tabled to the Committee.

With respect to application CRC070220, the Committee amended the following conditions:

Condition 2

Insert “up to” before “904 hectares”

New Condition 20

“The consent shall not be exercised concurrently with consent CRC991264”.

With respect to application CRC070221, the Committee amended the following the following condition:

Condition 3

Insert “RMA” before “Compliance and Enforcement Manager”

With respect to application CRC070222, the Committee amended the following conditions:

Condition 13

Replace (vi) with (iv)

Condition 31

Replace “%” with “percent”

Condition 42

“The lapsing date for the purposes of Section 125 shall be 30 June 2012”.

The Committee was satisfied that the proposed activities did not conflict with the purposes of the Resource Management Act given the recommended and amended conditions.

Resolved

That the Committee acting pursuant to a delegation of the Council of 22 October 2004, having had regard to the requirements of Section 104 of the Resource Management Act 1991, grants consent, pursuant to Section 105 of the said Act, to applications CRC070220, CRC070221 and CRC070222 by New Zealand Dairies Limited subject to the conditions as amended, for durations of 20 years and for the reason stated.

Cr Johnston/Cr Kirk

4.2 CDL LIMITED – CRC061671 AND CRC062602

The Committee was advised that the application was to discharge stormwater to ground from roofs, hardstand and roading areas from a proposed 83 lot residential subdivision at Stonebrook Drive, Rolleston. The land was currently open pasture that was grazed by sheep and livestock.

A total of four submissions were received to the notified applications, one of which had reserved the right to be heard. This was subsequently withdrawn by the submitter.

The Regulation Hearing Committee was delegated to decide resource consent applications where there were no parties to be heard. This included the applicant who had no speaking rights.

Following the presentation of the officers report by Ms Hepburn, the Committee resolved, and acting under the delegated authority of the Council, that a hearing be scheduled under Section 100 Resource Management Act.

The Committee was satisfied that they required to hear evidence from the applicant in respect of cumulative effects of the discharge from the proposed subdivision. The Committee was further satisfied that the applications currently contrary to the Regional Council's Regional Policy Statement.

Resolved

That a hearing be scheduled under Section 100 Resource Management Act to hear and decide resource consent applications CRC061671 and CRC062602 by CDL Limited

Cr Kirk/Cr Johnston

4.3 GLENBURN YOUTH CAMP TRUST – CRC031230

The Committee was advised that the application was to discharge domestic wastewater via an existing aerated treatment system and soak hole (installed in 2002) into land from camp facilities located at Yates Road, Timaru. The applicant was seeking a retrospective consent for the existing activity. The camping ground catered for a maximum of 100 people including staff.

A total of five submissions were received to the notified application, one of which Royal Forest and Bird Society had reserved the right to be heard. However, following consultation by the application, the right to be heard was subsequently withdrawn.

The Committee noted that the camp obtained its drinking water from McLeods Stream, which was located near the existing soak holes. The amount of water taken each day was less than 1000 litres per day, which meant that no further resource consent to take water was required.

Ms Challies referred to the assessment of actual and potential effects and said that the effects included adverse effects on surface water quality; effects of pathogens on groundwater quality and cumulative effects of groundwater quality.

With respect to effects on surface water quality, Ms Challies said that water quality data provided by the applicant had indicated that McLeods Stream was already polluted, and a site visit carried out by staff had also confirmed that stock had access to the stream and were contributing to the pollution. Ms Challies said that made it more difficult to ascertain whether the discharge from the soak hole was having any adverse effect. The drinking water taken from McLeods Stream was treated with ultra violet light (UV) before use, which was effective in removing most bacteria and viruses. The Committee noted the importance of ensuring the ongoing maintenance and servicing for the effective operation of the UV disinfection system.

With respect to the effects on groundwater quality, Ms Challies noted that aerated systems generally involved a low application rate and discharge via a drip irrigation system, Ms Challies said that she had previously audited domestic wastewater applications from aerated systems and had recommended they be processed non-notified. These applications usually involved a low application rate and a discharge via a drip irrigation system where the wastewater was discharged 100-150 millimetres below the ground surface into topsoil. However, in this case the applicant had not provided further information as to where the discharge pipe was located in relation to the depth of the soak hole. Nitrogen concentrations downstream from the discharge were higher than upstream and the measurements had been taken after the soak hole discharge system had been operating for about three years. Whilst the camp was not currently operating at full capacity, an increase in numbers might increase the level of nitrates in the stream and have a potential impact on drinking water standards. Ms Challies considered that the existing aerated system was a better treatment system than septic tanks.

Ms Challies commented on the Proposed Natural Regional Resources Plan (PNRRP) which allow soak holes within a zone defined as an area on the Canterbury Plains where the depth to groundwater exceeds 50 metres. The Committee noted that the depth to groundwater at the Glenburn Youth Camp was less than 30 metres.

The Committee was satisfied that consent be granted. However, the Committee considered that further mitigation was required. To this end, the Committee considered that restrictions on the maximum of persons; the volume of wastewater discharged daily and a reduction in the duration sought were required due to the increasing sensitivity of the receiving environment.

The Committee amended the following conditions:

Condition 1

Replace "100 people" with "50 people"

Condition 3(a)

Replace “10 cubic metres” with “5 cubic metres”

The Committee granted the consent with a duration of five years.

Resolved

That the Committee acting pursuant to a delegation of the Council of 22 October 2004, having had regard to the requirements of Section 104 of the Resource Management Act 1991, grants consent, pursuant to Section 105 of the said Act, to the application CRC031230 by Glenburn Youth Camp Trust, subject to the conditions, as amended, and duration of five years, and for the reasons stated.

Cr Neill/Cr Kirk

4.5 HAYS PASTORAL LIMITED – CRC054346

The Committee was advised that the application was to take and use groundwater for irrigation at Ashburton.

A total of two submissions were received to the limited notified applications, both of whom were opposed to the proposed activity, but had not reserved the right to be heard.

Ms Miles referred to the assessment of potential and actual effects and said that the effects included adverse effects on surrounding groundwater users and effects on other groundwater users.

With respect to effects on surrounding groundwater users, Ms Miles said that she had agreed with the results of the drawdown assessment provided by the applicant and was satisfied that any effects on surrounding groundwater users would be *de minimis*.

With respect to effects on groundwater users, Ms Miles said that if the consent application was granted, the effective allocation of the Ashburton-Lyndhurst groundwater Zone would be still under the 100% of the allocation block and on that basis, Ms Miles considered the effects to be minor.

Ms Miles recommended that consent be granted subject to the conditions as recommended and for a duration of 35 years.

The Committee was satisfied that consent be granted subject to a duration of 35 years. The Committee was satisfied that the proposed activity did not conflict with the provisions of the Resource Management Act given the recommended conditions.

Resolved

That the Committee acting pursuant to a delegation of the Council of 22 October 2004, having had regard to the requirements of Section 104 of the Resource Management Act 1991, grants consent, pursuant to Section 105 of the said Act, to the application CRC054346 by Hays Pastoral Limited, subject to the conditions and duration of 35 years, and for the reasons stated.

Cr Johnston/Cr Kirk

5. APPOINTMENT OF COMMISSIONERS TO HEAR AND DECIDE RESOURCE CONSENT APPLICATIONS

5.1 STOWE PROPERTIES LIMITED – CRC060842

The Committee was advised that a hearing would be scheduled in early 2007 to hear and decide a consent application to discharge stormwater from a proposed subdivision at Banks Peninsula.

The commissioner recommended had satisfied council staff he had the necessary criteria, including technical ability and RMA Accreditation Certification, to carry out the duties required.

Resolved

- (a) *That the Committee appoint Brent Cowie as a Commissioner to hear and decide resource consent application CRC060842 by Stowe Properties Limited with the full powers of the Council as a consent authority.*
- (b) *That the Committee appoint Brent Cowie to deal with any preliminary matters associated with (a) with the full powers of the Council as a consent authority.*

Cr Kirk/Cr Johnston

5.2 RUSSELY BUSINESS PARK – CRC052460.2

The Committee was advised that it was Council policy to appoint a commissioner when resource consent applications were lodged for an activity incurring on Council owned land.

The Commissioner recommended had satisfied council staff she had the necessary criteria, including technical ability and RMA Accreditation Certification, to carry out the duties required.

Resolved

That the Committee appoint Cindy Robinson as a commissioner in respect of resource consent application CRC052460.2 by Russley Business Park with the full powers of the Council as a consent authority to:

- (a) *decide whether the resource consent application shall be processed with or without notification;*
- (b) *determine any preliminary matters associated with the resource consent application; and*
- (c) *decide the resource consent application with or without a hearing.*

Cr Johnston/Cr Kirk

6. APPOINTMENT OF COMMISSIONERS TO HEAR AND DECIDE OBJECTIONS TO COSTS INCURRED IN PROCESSING RESOURCE CONSENT APPLICATIONS

- 6.1 CHRISTCHURCH CITY COUNCIL – CRC981389
 KAIKOURA DISTRICT COUNCIL – CRC063786
 K M VAN BEEK – CRC990968
 CHRISTCHURCH BUS SERVICES LIMITED – CRC042694
 SOUTH PACIFIC TYRES NZ LIMITED – CRC980062
 CANTAPINE TIMBER PRODUCTS LIMITED – CRC991900
 A J CLAYTON – CRC054519**

The Committee was advised that hearings were required to be scheduled to decide outstanding objections to costs incurred in processing resource consent applications.

The Commissioner recommended had satisfied council staff he had the necessary criteria, including technical ability and RMA Accreditation Certification, to carry out the duties required.

Resolved

- (a) *That the Committee appoint Robert Batty as a Commissioner to hear and decide resource consent applications by Christchurch City Council – CRC981389, Kaikoura District Council – CRC063786, K M Van Beek – CRC990968, Christchurch Bus Services Limited – CRC042694, South Pacific Tyres NZ Limited – CRC980062, Cantapine Timber Products Limited – CRC991900 and A J Clayton – CRC054519 with the full powers of the Council as a consent authority.*
- (b) *That the Committee appoint Robert Batty to deal with any preliminary matters associated with (a) with the full powers of the Council as a consent authority.*

Cr Kirk/Cr Johnston

- 6.2 A SUREN & S BROWN – CRC052442
 J G SZKLARSKI – CRC063377
 GIBSON FAMILY TRUST – CRC032272
 C B RADFORD & D A FEAVER – CRC010845
 D FLORANCE – CRC050067
 A D HARRIS – CRC050626
 SANCTUARY VILLAS LIMITED – CRC063313**

The Committee was advised that hearings were required to be scheduled to hear and decide objections to the costs incurred in processing resource consent applications.

The commissioner recommended had satisfied council staff he had the necessary criteria, including technical ability and RMA Accreditation Certification, to carry out the duties required.

Resolved

- (a) *That the Committee appoint Barry Loe as a Commissioner to hear and decide resource the objections to the costs incurred in processing resource consent applications by A Suren & S Brown – CRC052442, J G Szklarski – CRC063377, Gibson Family Trust – CRC032272 C B Radford & D A Feaver – CRC010845 D Florance – CRC050067 A D Harris – CRC050626 Sanctuary Villas Limited – CRC063313 with the full powers of the Council as a consent authority.*
- (b) *That the Committee appoint Barry Loe to deal with any preliminary matters associated with (a) with the full powers of the Council as a consent authority.*

Cr Johnston/Cr Kirk

7. QUESTIONS

Nil.

8. EXTRAORDINARY AND URGENT BUSINESS

Resolved

That the appointment of a Commissioner to hear and decide a resource consent application be considered extraordinary and urgent business.

Cr Kirk/Cr Johnston

PARKLANDS SOUTHLAND LIMITED – CRC070423

The Committee was advised that the Committee had previously appointed John Iseli as a commissioner to hear and decide the application.

However, due to a request by the applicant to reschedule the hearing to January 2007, Mr Iseli was required to be replaced to his unavailability during that period.

The Commissioner now recommended has satisfied Council staff he has the necessary criteria, including technical ability and RMA Accreditation Certification, to carry out the duties required.

Resolved

- (a) *That the Committee revoke the appointment of John Iseli as a Commissioner to hear and decide resource consent application CRC070423 by Parklands Southland Limited.*
- (b) *That the Committee appoint Robert Batty as a Commissioner to hear and decide resource consent application CRC070423 by Parklands southland Limited with the full powers of the Council as a consent authority.*
- (c) *That the Committee appoint Robert Batty to deal with any preliminary matters associated with (b).*

Cr Johnston/Cr Kirk

9. NEXT MEETING

Scheduled for 26 January 2007.
Membership: Councillors Neill, Budd and Waters

10. CLOSURE

The Chairperson closed the meeting at 1.20 p.m.

CONFIRMED

DATE _____ CHAIRMAN

4. RESOURCE CONSENT APPLICATION FOR CONSIDERATION BY THE COMMITTEE

The following resource consent application is submitted for consideration and decision by the Committee without formal hearing.

Applications	Permit No.	Page No.
W H Harris Limited	CRC070877	29 - 69

Recommended

That the Committee acting pursuant to a delegation of the Council of 22 October 2004, having had regard to the requirements of Section 104 of the Resource Management Act 1991, grants consent, pursuant to Section 105 of the said Act, to the application subject to the conditions and duration, and for the reasons stated.

**Before the Regulation Hearing Committee appointed
by the Canterbury Regional Council**

IN THE MATTER OF The Resource Management Act
1991

AND

IN THE MATTER OF Application CRC070877 by W. H.
Harris Limited for a discharge
permit to discharge contaminants
to air.

Section 42A Officer's Report

Date of Hearing: 2nd June 2006

Report of Tim Mallett

1. I have been employed at Environment Canterbury for the past 8 years in a variety of roles, all of which involved auditing applications for consents to discharge contaminants to air. I am currently employed as a Principal Consents Officer.
2. This report is prepared under the provisions of Section 42A of the Resource Management Act 1991 (RMA).
3. This report presents the audit of the application and addresses the relevant information and issues raised. It should be emphasised that any conclusions reached or recommendations made in this report are not binding on the Regulation Hearing Committee.

INTRODUCTION

4. W. H. Harris Limited (the applicant) has applied for a resource consent to discharge contaminants to air from up to 500 Rika domestic pellet burning appliances in new houses and houses that do not currently have a solid fuel burning appliances. The Rika appliances comprise the Rika Visio, Rika Premio, and Rika Memo appliances, as described in Applied Research Services (ARS) reports 06/1418, 06/1427, and 06/1425.
5. The application states that it is for installations in new homes throughout Canterbury, however I note that two of these burners, the Visio and the Premio, have been authorised for use throughout Canterbury (including in new homes), so in practice it is likely that this current application, if granted, will only be used
 - (a) in the Christchurch Clean Air Zone 1, as defined in the Proposed Natural Resources Regional Plan (PNRRP), and
 - (b) for the Rika Memo throughout Canterbury.

Background

6. Prior to 2003, pellet burners could be installed and used anywhere in Christchurch provided the specific appliance was authorised under s369(11) of the RMA. The first pellet burner to be authorised was the Envirofire EF III, imported at that time by Pellet Heating New Zealand Limited, with a laboratory emission test result of 1.47 g/kg.
7. On 1 January 2003 the discharge to air from any small scale solid fuel burning device (including pellet burners) in new dwellings¹ became classified as a prohibited activity, under rule AQL9 of the PNRRP. In practice this means that, until the PNRRP is operative, anyone wishing to install and use a pellet burner in a new house in Christchurch Clean Air Zone 1 must obtain a resource consent².
8. In October 2003 Solid Energy Renewable Fuels Limited (SERFL) obtained a resource consent³ to discharge contaminants to air from a single domestic pellet burner in the Christchurch Clean Air Zone. The assessment of effects asserted that emissions of PM₁₀ from the pellet burner were similar to those from a diesel burner, and hence, under the “permitted baseline” argument, the residual effects from the pellet burner, over and above those effects expected from a diesel burner, were nil. Given the knowledge of emission factors at the time, that argument appeared to be reasonable, and since that initial application a further 381 applications for consents for discharges from individual pellet burners have been granted to SERFL on a non-notified basis.
9. During 2005 decision-makers at Ecan became aware of various pieces of information that suggested that the argument for granting these consents without notification may not be valid. This included new information on real life PM₁₀ emission rates for pellet and diesel burners, and the latest projections on whether the targets for reducing domestic PM₁₀ emissions were likely to be met. Some of this information was presented to the PNRRP hearings, both by Ecan staff and various submitters to the PNRRP. In addition, on 1 September 2005 the NES for ambient air quality came into effect, including requirements to achieve the air quality targets by 1 September 2013. At various time during 2005 SERFL was advised that the individual burner applications would not necessarily be non-notified indefinitely, and that SERFL should provide further information on the cumulative effects of the emissions from pellet burners. In addition, it was suggested that SERFL consider applying for a “global” consent, for a fixed number of pellet burners, rather than continuing to apply on a house by house basis.
10. In December 2005 an application was received from SERFL for a consent to discharge contaminants to air from 405 domestic pellet burners. This application was publicly notified, a hearing was held, and the consent was granted in 2006. I note that, while the SERFL application was significantly more comprehensive than the current application, there are many similarities between the potential effects of the SERFL proposal and the current proposal. In addition, much of the material presented at the SERFL hearing, including predictions of the likely emissions of PM₁₀ into the

¹ A “new dwelling” is defined in the PNRRP as any dwelling for which the building permit was issued after 31 December 2002, or which didn't have an existing solid fuel burning device as at 31 December 2002).

² Under s77C of the RMA if a rule in a proposed plan describes an activity as prohibited, and that rule is not yet operative, then the activity is to be treated as discretionary

³ CRC032273, Mr D McKinnel

Christchurch airshed, likely concentrations of PM₁₀, and the likelihood of meeting the air quality goals in the NRRP and the NESAQ (National Environmental Standard – Air Quality), is also relevant to the current application. Hence I have included a copy of the decision on the SERFL application, together with my officer report for that application, with this current report.

Notification

11. The current application was received on 25 September 2006, and notified on 8 November 2006 as follows:

Applicant: W H Harris Limited Address: P O Box 4043, Christchurch Attn: Evan Harris
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CRC070877 – to discharge contaminants to air from the operation of up to 500 pellet burning appliances, installed in new homes, extensions to homes, or homes which do not currently have a solid fuel burning appliance, in Canterbury, including the Christchurch Clean Air Zone 1. The 500 appliances will be made up of a mixture of Rika Visio, Rika Premio, and Rika Memo pellet stoves. The contaminants to be discharged include particulate matter, aldehydes, PAHs, and other volatile organic compounds. A consent with a duration of 35 years is sought.
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Submissions

12. A total of one submission was received by the closing date of 6 December 2006. This was in support of the application, and the submitter did not wish to be heard. Hence this application comes before the Regulatory Hearing Committee.

DESCRIPTION OF THE PROPOSED ACTIVITY

13. The applicant proposes to discharge contaminants to air from up to 500 Rika pellet burners, under the conditions as discussed later in this report. These are essentially the same conditions as were attached to the authorisation of the Premio and Visio appliances, together with some additional conditions required to monitor the number of units installed.

LEGAL AND PLANNING MATTERS

The Resource Management Act 1991 (RMA)

14. Section 15(2) of the Resource Management Act (RMA) states that “no person may discharge any contaminant into the air ... from any place ... in a manner that contravenes a rule in a regional plan or proposed regional plan unless the discharge is expressly allowed by a resource consent, or regulations, or allowed by section 20.
15. In addition, s369(11) of the RMA states that, in certain circumstances, the TRP shall be deemed to include a rule to the effect that the regional council may authorised or prohibit the use of fuel burning equipment in a Clean Air Zone.

Regional Plans

Transitional Regional Plan (TRP)

16. The Transitional Regional Plan (TRP) includes the Clean Air Zone (Christchurch) Order 1977. This order prohibits the use in the Christchurch Clean Air Zone of fuel burning equipment that has not been authorised. The applicant has limited the appliances in this application to those approved in accordance with Rule AQL2 of the PNRRP (the Visio and the Premio), and the appliance for which a resource consent for use in existing houses has been granted (the Memo).
17. Therefore, prior to rule AQL9 of the PNRRP coming into effect, the applicant could have installed two of these models of appliance into new homes without a resource consent, and is likely to have obtained consent for the third model in old and new homes.

Proposed Natural Resources Regional Plan (PNRRP)

18. Regarding discharges from pellet burners in the Christchurch Clean Air Zone 1, the Proposed Natural Resources Regional Plan Chapter 3:Air (PNRRP) includes rule AQL9, which states that:

"The discharge of contaminants into air in the Christchurch Clean Air Zone 1 from the burning of any fuel in a small scale solid fuel burning device located in ...

a) any dwelling for which building consent was issued after 31 December 2001... or

b) any dwelling that did not have a small scale solid fuel burning device at 31 December 2002, ... unless building consent was issued and any amendments were incorporated in the building consent in accordance with the Building Act 1991 for the installation of the small scale solid fuel burning device before 1 January 2003;

is a prohibited activity for which no resource consent shall be granted".

If the NRRP was operative in its current wording, then the proposed discharges from new houses in Clean Air Zone 1 would be prohibited. However as it is only a proposed plan, this aspect of the proposal is to be treated as discretionary (RMA s77C(c)). In addition, I note the SERFL made a substantial submission to the NRRP hearing committee presenting an argument that discharges from pellet burners in Christchurch should be permitted, rather than prohibited. At this stage it is not clear what status these discharges will have when the NRRP becomes operative.

19. Regarding discharges from houses outside the Clean Air Zone, NRRP Rule AQL4 states that emissions from burners not meeting the criteria in AQL2 are non-complying. This includes emissions from the Rika Memo, as its test results do not meet the efficiency criterion in AQL2.

The National Environmental Standard – Air Quality (NESAQ)

20. The NESAQ came into effect on 1 September 2005. The implications of this NES for the current application are discussed further towards the end of this report.

CONSULTATION

21. The AEE states that no consultation was carried out regarding this application. However I note that the application was publicly notified.

DESCRIPTION OF THE AFFECTED ENVIRONMENT

22. The AEE does not describe the receiving environment. However I note that both in Christchurch and other urban areas in Canterbury, the winter meteorology and domestic particulate emissions can combine to cause the PM₁₀ concentration to exceed 50 µg/m³ over a 24-hour period.

ASSESSMENT OF ACTUAL AND POTENTIAL EFFECTS

Applicant's assessment

23. In the AEE the applicant asserts that the proposal will have "low level effects on the environment", and will emit "very minor amounts of PM₁₀" and "no visible smoke". Evidence referred to in support of these assertions include:
- (a) The results of testing of emissions and efficiency of the appliances by ARS, reported in ARS reports 06/1425, 06/1418, and 06/1427 (enclosed with the application), including emissions of 34 mg/MJ for the Visio and Premio
 - (b) Authorisation of the Vision and Premio (06014 and 06015)
 - (c) Resource consent CRC070087 for the Rika Memo in existing homes
 - (d) The consistency of of fuel and the "inability of any operator to operate the pellet fire incorrectly".
24. I note that the reasoning provided in this application is essentially a fairly small subset of the reasoning provided by SERFL in its application (which the current applicant has referred to). At its consent hearing, SERFL revisited the arguments it had made to the NRRP hearing panel, where it examined the predicted contributions to ambient PM₁₀ from various sources, including pellet burners, and concluded that an additional 405 pellet burners would have negligible effect on the airshed. While I disagree with many of the SERFL arguments, in particular their use of the term "offsets", in my report for that hearing I concluded that most of the uncertainty in airshed predictions arose from uncertainty in the number of logburners that would remain in use over the next 5-15 years, and the emissions from those burners. I agreed with SERFL (and still do) that addition of 405 pellet burners had negligible effects on the total emissions from domestic heating.

Adverse effects of other contaminants on human health

25. Other contaminants of potential relevance are nitrogen dioxide, PAH's, and various other volatile organic compounds. The applicant has not addressed these specifically, but has stated that the overall effects will be minor or nil.
26. From my previous audits of single pellet burner applications I agree that these are not likely to be an issue from 405 well-dispersed pellet burners, however it may be an issue in the future if large numbers of pellet burners were concentrated in a small area.

Positive effects of granting the consent

27. The AEE refers to some positive effects of allowing pellet burners. These include the fact that the fuel is "carbon neutral", and is a waste product, so doesn't require trees to be felled specifically for firewood, and the comfort provided to owners of such an appliance.

CONSIDERATION OF ALTERNATIVES

28. Regarding alternative methods of discharge, assuming a pellet burner is installed, there are clearly few alternative methods of disposing of the contaminants other than by discharging them to air via a suitable chimney stack.
29. Regarding alternative forms of home heating, these have been well canvassed in the material presented to the PNRRP hearing and the SERFL hearing.

POLICIES AND OBJECTIVES

30. This section of my SERFL officer report apply equally to this current application. In particular I note that, since the activity was listed as “prohibited” in the NRRP, additional test results for both pellet burners and logburners have become available.
- 31.

PART 2 MATTERS

32. My comments in the SERFL officer report are equally applicable to this application, apart from the reference to runanga submissions. In this case all Canterbury runanga were advised of the application and no specific concerns were raised.

NATIONAL ENVIRONMENTAL STANDARDS

33. My comments in the SERFL officer report are equally applicable to this application

OTHER RELEVANT MATTERS

Decisions of the Environment Court

34. I am not aware of any Environment Court decisions that would provide useful guidance on either interpretation of the NESAQ or on the specific weighting to be given to the PNRRP rules in the light of newly available information. There are decisions on weighting to be given to proposed plans (e.g. the Lynton Dairies Limited decision from Judge Smith), which may be of some relevance.

Previous Council Decisions

35. Ecan has previously granted numerous consents for discharges from pellet burners in individual houses, as noted previously, however this was essentially on the basis of the “permitted baseline” argument. More recent evidence suggests that pellet burners are likely to emit slightly more particulate than diesel burners per night, hence this argument may no longer be valid.
36. Ecan has received two applications for consents to discharge from domestic logburners in Christchurch. One has been publicly notified, and both are on hold, pending the outcome of the PNRRP hearings.
37. Ecan has also recently granted the application (CRC062419) from SERFL for a similar discharge from pellet burners in new houses in Christchurch

RECOMMENDATION

Grant or Decline

- 38. I consider that the panel could either grant or decline the application, and provide a robust explanation for the decision in both cases.
- 39. On one hand, if the panel wishes to take a conservative approach, it could be argued that it is not appropriate to grant consent to emit more particulate than that envisaged by the PNRRP, when the issue of whether the NESAQ targets are going to be met is still very uncertain.
- 40. On the other hand, if the panel wishes to take a more liberal approach, it could be argued that the emissions from these 500 burners will not, in itself, cause the NESAQ target to be breached. The target either will or will not be met, but this will depend primarily on the number of woodburners remaining in 2013, and the amount of particulate they each emit (relative to emissions from those that have been removed). In this case, it could be seen as unreasonable to deny those 500 households the option of a pellet burner, with all its positive effects, when the problem of breaching the target is primarily caused by a different group of appliances.

Duration

- 41. If the panel is of a mind to grant this application, the question of duration arises. The applicant has requested a duration of 35 years. There is guidance on this matter in Chapter 1 of the PNRRP, and in various examples of case law, including Prime Range Meats Limited (C127/98) and PVL Protein Ltd.
- 42. For the SERFL hearing, I advised that there were a range of possible durations that could be chosen, and defended, by the panel, and that this could also be linked to the “product stewardship” issue. In other words, if the applicant could demonstrate that the appliances would be maintained, and would not emit more particulate as they aged, then a longer duration could be considered.
- 43. In that case the committee granted a duration of 35 years, and included conditions requiring regular servicing of the appliance, and a commitment to investigating “real life” emissions from burners, including the emissions from the appliances as they age. The current applicant has, to date, offered no such conditions, so a shorter duration may be appropriate, perhaps closer to the economic life of this type of appliance, which is often quoted as 15 years.

RECOMMENDED CONDITIONS

The conditions applied to the SERFL consent are included in the decision on that application, attached to this report. Also attached are the conditions applied to the AQL2 authorisation of the Rika Premio and Visio. It can be seen that the SERFL conditions for the global consent are more comprehensive, and include requirements to record the location of each appliance, routine servicing, and commitments to fuel quality and real life performance testing. The applicant has not proposed any such research or real life testing. The committee may wish to take this into account when determining an appropriate duration. I will table an updated statement from the applicant on this matter at the hearing on 26th January.

Signed: _____

Date: _____

Tim Mallett
Principal Consents Officer

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**IN THE MATTER of THE RESOURCE
MANAGEMENT ACT 1991**

AND

**RESOURCE CONSENT
APPLICATION CRC062419 SOLID
ENERGY RENEWABLE FUEL LTD**

**REPORT AND DECISION OF CANTERBURY REGIONAL COUNCIL/RESOURCE
CONSENT HEARING IN CHRISTCHURCH OF 2 AND 6 JUNE 2006**

HEARING COMMITTEE:

Cr R A Budd Chairperson
Cr R I R Little
Cr J M Waters

REPRESENTATION AND APPEARANCES

Applicant

M Christensen/Ms B O'Leary Counsel
Dr S Pearce, Witness
R Cudmore, Witness
Ms J Todd, Witness

Submitters

S Simeonides
J Parr
J Walker
Mrs A McGregor
Sir Tipene and Lady O'Regan

SECTION 42A REPORT

T Mallett, Environment Canterbury

APPLICATION CRC062419

The application, as notified, was for consent to discharge contaminants into air from the operation of up to 405 fuelled fire appliances installed in new homes, extensions to homes or homes which do not currently have a solid fuel burning appliance in the Christchurch Clean Air Zone 1. The appliances will emit no more than 1g/kg of particulate and have a space heating efficiency of not less than 65 per cent. The contaminants to be discharged include particulate matter, aldehydes, PAHs and other volatile organic compounds. The application is for a 35-year duration consent.

STATUS OF THE CONSENT ACTIVITY

Under Rule AQL9 of the Proposed Natural Resources Regional Plan (PNRRP) as of 12 January 2003, the discharge to air from any small-scale solid fuel-burning device (including pellet burners) in new dwellings became classified as a prohibited activity. Section 77C(1)(c) of the Resource Management Act 1991 provides that an application for a resource consent for an activity must, with the necessary modifications, be treated as an application for a discretionary activity if a rule in a plan describes the activity as a prohibitive activity and that rule has not become operative. Since the NRRP is still a proposed plan and not yet operative for the purposes of Rule AQL9, the application is to be treated as a consent for a discretionary activity.

A discretionary activity is one for which a resource consent is required which the consent authority may grant with or without conditions, or decline the resource consent and the activity must comply with the standards, terms or conditions if any specified in the plan or proposed plan.

SUMMARY OF SUBMISSIONS AND EVIDENCE FOR THE APPLICANT

The applicant submits that resource consent is not required to replace a solid fuel burner with a pellet burner in an existing house and accordingly this application relates only to new houses, houses without an existing solid fuel burner and installations into extensions to existing houses.

Solid Energy made submissions to the NRRP hearing process that pellet fires are a solution to Christchurch's air problems and should be permitted for use in all homes. Solid Energy submitted that if pellet fires were put in all houses, then Christchurch would more easily meet the National Environmental Standards (NES) targets by 2013 relating to certain air pollutants, dioxins and other toxics than under the existing rules in the PNRRP.

Since notification of the NRRP in 2002 Solid Energy has been applying for resource consents to install pellet burners in Christchurch on an ongoing and individual basis. These applications have been processed on a non-notified basis. Some 389 applications for pellet burners have been approved since Solid Energy purchased its business in October 2003. Solid Energy has a number of clients waiting desperately for approval to install pellet burners in their homes for use this winter.

Solid Energy says that future compliance with national standards for air quality will not be influenced by the granting of this consent. The emissions from these pellet fires have already been offset by the replacement of inefficient wood burners with pellet fires. The figure of 405 is based upon the number of inefficient solid fuel burners that have been replaced with low emission fuelled fires (rather than other permitted options such as compliant wood burners, diesel, LPG or electricity) in the year prior to this application being lodged.

Using Environment Canterbury officers' estimates of the differing emission levels of these appliances, Solid Energy calculates that each time an open fire or inefficient burner is replaced by a pellet fire there is an offset ratio of approximately 2.5:1. In the year prior to this application Solid Energy replaced 1014 existing solid fuel burners in the Christchurch Clean Air Zone with low emission pellet fires.

Solid Energy submitted that its evidence will demonstrate that the adverse effects likely to arise from the granting of this application are inconsequential for the following reasons:

- (a) The emissions from 405 pellet fires are minute and will not give rise to significant adverse cumulative effects.
- (b) The emissions have been offset by the removal of old inefficient solid fuel burners.
- (c) Granting consent will not impact on the ability to meet air quality targets (including NES) in Christchurch.
- (d) There are positive benefits in providing an affordable heating option for the community.

ECan's reporting officer placed a great deal of relevance on product stewardship which essentially refers to the steps Solid Energy should or may wish to take by way of maintenance agreements, regular testing of appliances and random monitoring to provide certainty that the pellet fires will continue to emit no more particulate over the life of the appliance than what is assumed when the appliance is new.

Solid Energy's position is that in technical terms a product stewardship arrangement is not required and would introduce a regime for pellet fires, which is inconsistent with that required for other heating appliances. Solid Energy agrees however to ongoing maintenance and in house monitoring of pellet fires as a condition of the consent if granted.

Solid Energy recognises that the effect of granting this consent has to be considered in conjunction with the discharges already permitted by the PNRRP.

Regulations 17 – 17C of the NES relate specifically to the standard for PM₁₀ and set in place a straight line path for reductions of PM₁₀ by 2013. Regulation 17A provides:

"A consent authority must decline an application for a resource consent to which Regulation 17(2) applies if the discharge to be permitted by the resource consent is likely to cause, at any time, the concentration of PM₁₀ in the airshed to be above 'the straight line path'."

Regulation 17A only applies if the application is for an activity which will significantly increase the amount of PM₁₀ in the airshed.

17(1) Regulations 17A to 17C apply to an application for a resource consent to discharge PM₁₀ into an airshed before 1 September 2013, if-

- (a) the concentration of PM₁₀ in the airshed already breaches its ambient air quality standard; and
- (b) the discharge to be permitted by the resource consent is likely to increase significantly the concentration of PM₁₀ in the airshed.

Solid Energy's submission is that the level of emissions produced by 405 pellet fires is so small that it will be undetectable. Any failure in Christchurch to meet the NES is likely to be attributable to the ongoing use of inefficient solid fuel burners.

Solid Energy says that it cannot be concluded that the emissions of PM₁₀ from 405 pellet fires will significantly impact upon the concentration of PM₁₀ in the airshed. Accordingly Regulations 17A – 17C of the NES do not prevent the granting of this application.

In his evidence Dr S Pearce referred to the benefits of pellet fires; the fundamentals of wood pellet fuel combustion; the implications of wood pellet-fuel combustion on emissions regulated by the NES and the issue of possible slow drift in emission performance over time.

Solid Energy Renewable Fuels turns pinewood biomass into pellets and says that it is successfully growing the market for biomass pellet fuels and biomass pellet burners in New Zealand.

Wood pellets are produced by applying pressure to a mixture of wood shavings and sawdust from the whitewood portion of the tree and extracting it like a spaghetti maker. No bark is used in the process. No glue is used in producing wood pellets – naturally occurring lignin in the sawdust is the organic bonding agent. Moisture content in the pellets is controlled to a maximum of 8 per cent.

A quality assurance programme has been implemented in the process and quality testing carried out has led to the following wood pellet properties:

Calorific Value (Gross) MJ/kg	19
Moisture	6.4%
Ash	0.4%
Bulk Density	667 kg/m ³

Historically wood waste of the type used to make biomass pellets has not been used productively and in large measure is disposed of in landfills.

Pellet burners are imported from North America and Europe where they have been used for home heating for over 20 years. The burners have a fuel hopper, which stores around 20kg of pellets. The pellets are automatically fed into the burn pot where the fire is ignited and a dial controls the frequency of the feed of the pellets and regulation of the actual heat output. Combustion air is drawn through the burn pot by an exhaust fan ensuring maximum efficiency. The high operating air to fuel ratio and gradual feed of the pellets into the burn pot ensures that complete combustion of the fuel occurs at all times. Pellet fire combustion temperatures are typically around 1000°C. Fuel firebox temperature for modern enclosed wood burners is around 800-900°C.

The quality assurance programme implemented by Solid Energy Renewable Fuels Ltd includes contractual arrangements with suppliers to ensure raw materials are of a consistently high quality with no contamination; standardised plant operating procedures with moisture testing throughout the manufacturing process and regular product quality testing. The combustion air fan is powered by a synchronous electric motor whose speed is governed by the electricity grid. The combustion fan can be expected to deliver similar quantities of air over the duration of its life.

Fuel to the combustion chamber is conveyed by an auger powered by a stepper motor, whereby the fuel is delivered in proportion to the operator's demand for heat. If the electronics of the auger motor were to fail causing the auger to operate continuously and slightly higher than on high heat setting, the emissions would be similar to normal high heat setting.

Solid Energy is confident that a slow drift in emission performance is therefore unlikely to occur.

PELLET FIRE EMISSIONS

Emissions from pellet fire fuel combustion are likely to contain PM₁₀, nitrogen oxides, poly-aromatic hydrocarbon (PAH). Aldehydes and other volatile organic compounds are likely to be so miniscule as to be of no real concern.

Mr R Cudmore provided a detailed comparison of these emissions to other methods of home heating. He says that PM₁₀ discharges from pellet fires are similar to discharges from diesel and gas fired home heaters. Emissions are lowest for gas-fired heaters, slightly higher for diesel and slightly higher for pellet fires. Emissions from pellet fires are far more similar in magnitude to gas and diesel heaters than for the relatively higher emissions produced by old and modern enclosed log burners. In his view, during the formulation of the NRRP, this fact was not understood and pellet fires were inappropriately placed in the same category as log burners in regards to the proposed rules.

Current information on pellet fire PM₁₀ emissions is sufficient to draw sound conclusions regarding the cumulative effects of this application and the total reduction of PM₁₀ in the airshed due to the recent replacements of log burners with pellet fires.

Mr Cudmore stressed the importance of the difference in the combustion characteristics between pellet fires, enclosed wood burners and open fires. PM₁₀ emissions are primarily a result of large organic compounds that condense to form fine particulates as the exhaust from the fire cools within the flue or chimney. The only reason large volatile compounds exist within the exhaust giving rise to PM₁₀ formulation is combustion inefficiency. Combustion inefficiency results in organic compounds escaping the combustion zone of the fire without being oxidised to CO₂ and water, etc.

The key factor is combustion zone temperature. Pellet fires achieve a high combustion zone temperature of approximately 1000°C, which is comparable to an industrial boiler. Enclosed wood burners and open fires typically operate at much lower temperatures of approximately 800°C.

At a combustion zone temperature of 1000°C the destruction of most chemicals is relatively fast and highly efficient in the presence of excess oxygen. A major reason why pellet fires achieve a high combustion temperature and excess oxygen levels is related mostly to the character of the pellet fuel. Pellet fire fuel is relatively dry, has a consistent geometry and high surface area to volume ratio. The opposite is why enclosed solid fuel heaters operate at lower combustion temperatures.

Apart from the much lower emission levels, the features of pellet fire design and operation strongly indicates that PM₁₀ emissions will not be significantly influenced by the home operator.

When tested in simulated real life circumstances, ie the six-hour cycle method including start up and cool down, many enclosed wood burners have exhibited higher emission rates than standard tests have previously indicated. These differences were highlighted in a graph of total suspended particulates from various appliances in terms of grams/KW hr. Standard tests as used by Environment Canterbury show that all pellet fires including those with a wetback, were in the range of 0.3 to 0.7 grams/KW hr. Enclosed wood burners for the same test were in the range of 0.6 to 0.9 grams/KW hr. By comparison results from the six hour simulated real life test pellet fires were marginally higher and all below the 1 gram/KW hr wood burner standard test emission limit. Enclosed wood burners showed levels of 2.5 and 3 grams/KW hr.

Mr Cudmore was of the opinion that there is considerable doubt that the simulated real life test method may still understate emissions from enclosed wood burners under true real life conditions. The same doubt does not exist in his opinion for gas, diesel or pellet fired home heaters.

NO_x EMISSIONS

Mr Cudmore says the emission rate of NO_x is dependent on the fuel nitrogen content.

Recent testing by Solid Energy and CRL (Coal Research Laboratory) provided the following emission factors based on in situ testing:

Pellet fires	0.6 – 1.1g NO _x /KG fuel
LPG	2.0 – 2.1g NO _x /KG fuel
Diesel	0.76 – 0.95 NO _x /KG fuel

The pellet fire testing was carried out using three different pellet fires at various combustion rates with seven tests in total.

A literature review by Kingett Mitchell Ltd indicated that an appropriate emission rate for pellet fires was between 1 and 2.8g NO_x/KG fuel while testing by Solid Energy under real life conditions indicated between 0.6 and 1.6g/KG fuel. Similar literature review and testing indicated that wood burners had an emission rate of between 0.6 and 1.4g NO_x/KG fuel, diesel burners had emission rates of between 0.8 and 1.8g NO_x/KG fuel and LPG burners an emission rate between 2.0 and 2.1g NO_x/KG fuel.

Based on 2002 ambient NO₂ concentrations and current and projected traffic and industry contributions Environment Canterbury analyses shows that any additional emissions of NO_x from pellet fires is likely to result in ambient NO₂ concentrations that are lower than 2002 levels and therefore less than 50% of NES or AAQG.

The main contributor to NO_x is vehicle emissions with Environment Canterbury reporting in 2004 that in 2002 there were 14.4 tonnes NO_x/day emitted in suburban Christchurch. Conversely industry emitted 2.4 tonnes NO_x/day and domestic heating emitting 1.2 tonnes NO_x/day.

The prediction in the PNRRP is to reduce the total (vehicle, industry and domestic) weighted NO_x emissions to 50% of the 2002 emissions.

Poly-Aromatic Hydrocarbon (PAH) Emissions

PAHs are said to be a consequence of an incomplete combustion process. The formation of PAH emissions is associated with the formation of soot in the combustion process when soot is formed under oxygen deficient conditions. If the combustion process takes place with a reasonable level of excess air and the combustion is thoroughly mixed any soot formed can be burned out before leaving the combustion chamber.

PAH data on a range of domestic combustion devices shows that for a wide range of PAHs the emission levels for pellet fires were non detectable. In comparison emission levels for wood burners all PAHs showed detectable levels with one exception.

The combustion of wood pellets produced only three of the seventeen PAH compounds tested for and all three were close to the detection limit of the analyses equipment.

The conclusion reached was that PAHs from pellet fires are unlikely to cause any issues within the airshed.

CUMULATIVE PM₁₀ EFFECTS

Four hundred and five pellet fires are estimated to produce approximately 4 kg/day total PM₁₀ into the Christchurch Clean Air Zone on a cold winter's day. Figures tabulated from a paper entitled Airshed Capacity and Allocation Calculations by Angee Scott (ECan) 29 November 2005 show that in 2002 a total of 154037 home heating appliances were collectively discharging approximately 6540 kg/day of PM₁₀.

Mr Cudmore reasoned that as it is likely these 405 pellet fires will be distributed throughout the Clean Air Zone an increase in the emission rate of 4kg/day would have no measurable effect upon ambient air PM₁₀ levels as measured by methods specified by the NES.

Mr Cudmore concluded that to increase average ambient PM₁₀ by approximately 2µ/m³ would require an increase in PM₁₀ of approximately 100 kg/day, which would equate to the emission from 10,000 pellet fires. He concluded that the increase in PM₁₀ resulting from the installation of 405 pellet fires in new homes in Christchurch would have an insignificant effect upon existing or future PM₁₀ levels.

Regulation 17 of the NES refers to significantly increasing ambient PM₁₀ levels when determining if that regulation applies to an application to discharge PM₁₀. The term significant is not defined and it is considered reasonable to believe that the intent is to allow for small increases in ambient levels that would make a minor difference in terms of NES compliance.

The increase from 405 pellet fires is bordering on zero both now and in the future and cumulative effects will be insignificant.

SUBMISSIONS

Thirty submissions were made to the application, 27 in support and three in opposition.

Many of the submitters in support are persons awaiting this decision in the expectation that consent will be granted whereby they can install a pellet fire for the current winter. Their preference for a pellet fire over other home heating appliances was the high heat output relative to other home heating appliances, the low emissions of pellet fires, the use of a renewable resource as a fuel, a perceived uncertainty of supply and cost escalation of other fuels including electricity. A number of submitters also contended that the heat from pellet fires is a more comfortable living heat than electricity, gas or diesel fuel.

All submitters who attended the hearing, namely Mr Simeonides, Mr Parr, Mrs McGregor and Sir Tipene and Lady O'Regan outlined their particular home heating problems and preference for a pellet fire over other types of home heating. Without wishing to denigrate their contribution to the hearing process we see nothing to be gained by a more detailed summary of their submissions that given above.

Mr J Walker's submission in support was in a more technical vein and worthy of a more detailed summary. Mr Walker has a degree in energy studies and has considerable experience as an energy analyst. He dealt at some length with the offset and risk of attaining the NES standard by 2013, and Environment Canterbury's proposed offset formula calculations provided in the paper Airshed Capacity and Allocation Calculations by Angee Scott, 29 November 2005.

The object of those airshed capacity and allocation calculations was an attempt to show, based on the total heating appliances in 2002, what configuration of heating appliances may exist in 2013 and how the total daily emissions of PM₁₀ would need to be reduced from 6540 kg/day to 1017 kg/day to meet the NES standard.

Mr Walker interpreted those projections as showing that 8999 existing burners still being used in 2013 will take up 547.6kg of the available 1017 kg NES target, leaving a capacity balance of 469.4 kg for any new heating appliances installed before 2013. This equated to a capacity allocation for replacement burners of 12.6g/day.

Mr Walker was critical that this approach is clearly contradicted by the fact that Environment Canterbury is still allowing the installation of log burners emitting 45g/day as replacement burners.

While his analysis appears valid we believe his criticism needs to be tempered by the fact that the configuration of home heating appliances in 2013 are but one projection based on 2002 data. Such projections are inherently difficult and by 2013 could well show an entirely different mix. They do however highlight that log burners are utilising a significant percentage (90% plus) of the NES limit.

Mr Walker's submission also highlighted the significance of the higher real life emissions from log burners. A figure of 3g/kg is said to have been used in formulating the PNRRP for low emission log burners. More recent testing shows that the real life emission is a median of 13g/kg. The prime reason for the real life increase in emission level is attributed to the manner in which log burners are operated in the home. Wood moisture content, ununiform size and bark content are also contributors.

Mr Walker used a number of alternative projection scenarios using real life emission factors and updated heating trend data comparing new and old forecasts for 2002 emission levels. He calculated, using new emission scenarios and assuming no other emissions, that even under his worst case scenario the total number of pellet fires possible whilst still complying with the NES 2013 limit would be over 106,000 pellet fires or nearly 2/3 of the projected number of houses in Christchurch by 2013. He also concluded from his updated emission forecasts using real life emission figures for log burners that there can be an allowance of 23.8g/day for replacement solid fuel burners and still meet the NES 2013 limit.

He concluded that it is theoretically possible to install well over 100,000 pellet fires in Christchurch provided there are no log burners. The major constraint he could see on pellet fire installation allowed would be the number of log burners.

One very illustrative graph produced by Mr Walker using Environment Canterbury's forecast of configuration of appliances possible by 2013 shows that log burners could account for 10.8% of the housing stock and yet take up 95.7% of the NES 2013 limit of 1017 kg/day.

One thing Mr Walker's submission highlighted which was also raised by Mr Cudmore is whether it is appropriate to categorise pellet fires in the same terms as low emission log burners under the PNRRP.

We are given to understand that at the time of the formulation of the draft NRRP pellet fires tested similar to low emission log burners. Subsequent testing and more particular real life emission tests clearly show that pellet fire emissions are less than originally tested and log burners emissions significantly greater. We would be surprised if that difference has not been picked up by those involved in finalising the NRRP which could result in pellet fires being given a separate category classification of at least discretionary activity status or even

permitted activity status. We have no jurisdiction to make any recommendation that might influence that decision.

SUBMISSIONS IN OPPOSITION

The main reason given by those submitters opposing the application was that no solid fuel burners have low enough emissions to achieve the clean air aims and that there are more efficient alternatives available at reasonable cost.

One submitter in opposition, Mr C Campbell attended the hearing. He initially submitted that the Clean Air Zone is not improving as quickly as forecasted and that any spare offset emission capacity created by the replacement of high emission residential combustion burners with lower emission burners should be reserved at least until the 2013 NES standard is met and then be made available to the best cause.

He contended that all technical reports in the publicly available documentation highlight numerous unknown factors and consequences and place heavy reliance on predictions rather than actual performance.

In a supplementary submission, having heard the other evidence and submissions, Mr Campbell substantially modified his opposition to the consent being granted. On the basis of that evidence he accepted that even if pellet fires are installed in significant numbers they are unlikely to be responsible for major air pollution in Christchurch provided that they perform consistently in actual household service, that they are maintained to an as built standard for their working life and that they burn pellet fuel that meets set specifications.

Mr Campbell had remaining concerns over the legality of a pellet fire being installed in a home that does not now have a working open fire or wood burner but which previously qualified for a subsidy (CCC/EECA 1997/1998) receiving a second subsidy. He was also concerned to ensure that any offset credits created by lower emission burners be "banked" for a "rainy day" between now and 2013.

On the subsidy issue raised by Mr Campbell we can only say that is a matter which is outside our jurisdiction.

STATUTORY PLANS

The various rules, objectives and policies of the statutory plans that have application to this consent application were very well summarised by Ms Jacqui Todd. We are satisfied with her conclusion that none of those planning rules and objectives would be contravened if we were to grant the consent sought. For the sake of brevity we see no reason to recite those applicable planning provisions.

DURATION

The applicant seeks a consent for a duration of 35 years. The Section 42A reporting officer felt that the duration of any consent should be closely linked to product stewardship. If a robust product stewardship were to be offered by the applicant providing reasonable assurances that pellet fires will perform as expected for the next 35 years then a duration of consent for that period would not be inappropriate. Other durations suggested were 15 years which is the suggested life of a pellet burner and 7 years giving an expiry just before the 1 September 2013 NES limit deadline.

We are aware that consents already approved non-notified for pellet fires have been given a duration of 35 years.

We are satisfied however that a robust product stewardship has been offered by the applicant and that with proper maintenance pellet fires could have a useful working life beyond 15 years. Appliance emission performance rather than the age of the appliance will be the relevant determining factor.

We are satisfied that a 35-year duration consent would be appropriate.

CONSIDERATION

Section 104 of the Resource Management Act, subject to Part 2 contains the provisions we must have regard to in deciding this application. The relevant provisions are:

- Any actual and potential effects on the environment of allowing the activity;
- Any relevant regulations
- Any relevant objectives, policies, rules or other provisions of a plan or proposed plan;
- Any other matters the consent authority considers relevant and reasonably necessary to determine the application.

In assessing the actual and potential effects the most relevant factor is the cumulative effects to those already affecting the quality of air in the Christchurch Clean Air Zone.

Although the application is for consent for 405 pellet fires that number is immaterial in the overall context and it does not suggest that is the ultimate limit of the number of pellet fires that could be authorised. The figure of 405 was based on the number of pellet fires which Solid Energy calculated it has already created offset for in replacing other solid fuel home heating appliances. The real issue is how well do pellet fires rate in comparison to other available home heating appliances if the NES 2013 PM₁₀ limit is to be met.

On the evidence before us pellet fires must rate very highly when compared to other heating appliances and more particularly low emission log burners. The prime reason for that is their comparatively much lower real life emission levels. Those lower emission levels can be attributed to their higher combustion temperatures, better and more consistent fuel quality and their design which reduces the scope for poor home operator use of the appliance.

In terms of both absolute and cumulative effects the emissions from this application being approved are very low and well within acceptable limits.

Solid Energy identified three issues as the most relevant in determining the application, namely:

- The offset argument
- The emissions argument
- The capacity argument

There was a considerable amount of submissions on the issue of offset. The NES Regulation 17C includes a requirement where in certain circumstances an application must be declined unless the applicant "reduces the amount of PM₁₀ discharged from another source in the same airshed". There appears to be inherent uncertainty in how offset is to be calculated. For the purposes of determining this application we do not see offset as of any real importance. There was no dispute amongst any of the expert witnesses that approval of this application would not push PM₁₀ levels above the straight line reduction path to meet the

2013 limit. The evidence given was that currently there is capacity available below that straight line path. That coupled with the low actual and cumulative effects of the number of pellet fires for which approval is sought effectively negates the applicability of Regulation 17 of the NES. No doubt, as that capacity is utilised or even exceeded by the installation of more solid fuel home heating appliances, then the offset provision will come more sharply into focus. The evidence of R Cudmore and others supports the conclusions that approval of this application will not compromise the ability to meet the 2013 PM₁₀ target and that the level of emissions from 405 pellet fires will not have a measurable impact on PM₁₀ levels.

In terms of the NES Regulations, although pellet fires are excluded from the definition of wood burner they do meet the standards specified in Regulations 23 and 24.

On the evidence given we find it difficult to refute Mr Cudmore's opinion that the combined discharge of PM₁₀ from pellet fires is likely to cause insignificant and undetectable effects upon existing and future ambient PM₁₀ concentrations in the Christchurch airshed. Future compliance with NES Standards for ambient PM₁₀ will not be significantly influenced in any way by the granting of this application or indeed if a much larger number of pellet fires were to be installed in new homes in Christchurch.

The same can be said for NO_x and PAH emissions because of the similarity of these emissions from pellet fires to that of other fossil fuel based home heating appliances.

We find merit in his other conclusion that if Environment Canterbury is forced to take measures in the future to keep ambient air quality reductions on target then tangible steps will be necessary to reduce log fire and any open fire emissions.

In summary we are satisfied that the actual and potential effect of granting this application will be minor and will have no measurable impact on the ability to meet NES air quality standards.

Nothing in this application can be construed as being contrary to the objectives of the relevant statutory plan or the NES air quality standards. In relation to the latter various predictions have been made of the possible configuration of home heating appliances by 2013 as a means of calculating the likely emission levels and compliance with the PM₁₀ limit. The contribution that log burners are likely to make in utilising any available capacity is quite compelling, more particularly because of the significant disparity revealed by testing between laboratory tested emission levels and real life performance. In that respect pellet fires have a much superior real life emission performance.

Other matters of relevance that we have given regard to are the possibility raised of pellet fire owners using other than approved pellet fuel and turning off the convection fan to reduce noise. Either of these measures would appear to be counter productive to gaining the best efficiency from the appliance and we would not expect any prevalent use of those measures. The effect of turning off the convection fan on emission levels is not known but not expected to be significant. If it is, then it would not seem a manufacturing problem to change the design to prevent that practice.

A more positive other matter of relevance is the applicant's commitment to a robust product stewardship plan. In large part this commitment reflects the confidence held in pellet fires in achieving low emission levels.

With respect to sections 5, 6, 7 and 8 of Part II of the Act there are no matters of national importance or Treaty of Waitangi issues involved in deciding this application. Other matters (section 7) of relevance include (ba) *"the efficiency of the end use of energy (f) maintenance and enhancement of the quality of the environment and (j) the benefits to be derived from the use and development of renewable energy"*. Approval of the application would not be contrary to any of these statutory provisions.

In the overall context, the positive effects of granting this application far outweigh any actual or potential adverse effects. Approval of the application clearly falls within the definition of sustainable management in providing people an efficient means of home heating which is so essential to their social well being and their health and safety.

As a final comment we commend the participants at this hearing for the high standard of the evidence and submissions presented.

DECISION

Having considered all the evidence and submissions and the relevant statutory provisions applying to consideration of this consent application we are satisfied that the grant of the consent is consistent with the objectives of the NRRP and the purpose and principles of the Resource Management Act 1991 Part 2 Section 5.

Accordingly we grant consent to Solid Energy Renewable Fuels Limited to discharge contaminants into air within the Christchurch Clean Air Zone 1 from the operation of up to 405 pellet fires installed in new homes, extensions to homes or homes that do not currently have a solid fuel home heating appliance.

The consent shall be for a duration of 35 years subject to the following conditions:

CONDITIONS

1.
 - (a) The discharge shall only be combustion products from 405 pellet fires.
 - (b) The discharge of PM₁₀ from each pellet fire installed under this consent shall be no more than 40mg/MJ.
2. The location of the discharge shall only be at homes within the Christchurch Clean Air Zone 1.
3. The consent holder shall, on an annual basis, provide the Canterbury Regional Council with a list of addresses where pellet fires have been installed in accordance with this consent.
4.
 - (a) The discharge into air from the pellet burner shall occur via a stack, and shall be directed vertically into the air and shall not be impeded by any obstruction above the stack which would decrease the vertical efflux velocity below that which would occur in the absence of such obstruction.
 - (b) The point of discharge from the stack shall be at a height of at least 600 millimetres above the point at which the stack penetrates the roof.

5. (a) The discharge shall be only from the combustion of pelletised wood fuel meeting the following specifications:
- | | |
|------------------|---|
| Fines: | 1% maximum through a 3mm screen |
| Bulk density | 641 kg/m ³ minimum |
| Size | 6 to 10 mm diameter and 38 mm maximum length |
| Ash content | 1% maximum |
| Moisture content | 8% maximum |
| Heat content | 19.4 MJ/kg minimum (air dried basis, 2% moisture) |
| Sulphur content | 0.05% maximum |
- (b) The pelletised wood fuel shall comprise only sawdust and/or wood shavings that have not been treated with chemicals except non-chlorinated anti-sap stain chemicals.
6. The discharge shall not cause an odour or deposition of particulate or suspended particulate which is offensive or objectionable beyond the boundary of the property on which the consent is exercised.
7. The capacity of emissions from the chimney stack from the pellet burners authorised by this consent shall not be darker than the Ringlemann Shade 1 as determined in accordance with the New Zealand Standard 5201:1973, except for a period not exceeding two minutes in any hour.
8. The pellet burner shall be serviced at least once every two years, by a person competent in the servicing of such appliances. Servicing shall include:
- Removal of ash from inside the appliance;
 - Cleaning of the flue;
 - Checking and if necessary, repairing the door and ash pan seals; and
 - Testing and adjusting if necessary the air to fuel rate.

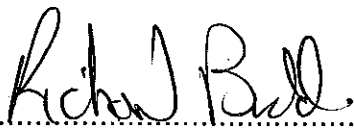
Service reports shall be prepared, and retained, so that copies can be provided to the Canterbury Regional Council upon request.

9. The consent holder shall within six months of the date of the commencement of this consent, prepare, maintain and where appropriate amend, a maintenance and monitoring plan which shall:
- (a) Set out the procedure for contacting all home operators of pellet fires installed under this consent on a two-yearly basis of the requirement to have the pellet fire serviced every two years.
- (b) Describe the consent holder's commitment to wood pellet quality assurance.
- (c) Describe the procedures for undertaking real life home performance trials on pellet fires both within and outside the Christchurch Clean Air Zone 1 to provide real life pellet fire operation emission data.
- (d) Set out the steps by which to investigate the effect of ageing of the pellet fire on emissions.

A copy of the Management Plan shall be provided to Canterbury Regional Council on request.

10. The consent holder shall within five years of the date of commencement of this consent monitor the real life emission performance of five pellet fires installed under this consent and shall repeat monitor the same appliances at intervals of five years.
11. The lapsing date of this consent for the purposes of Section 125 shall be five years after the date of commencement of this consent.
12. The Canterbury Regional Council may on the last working day of September each year, serve notice of its intention to review the conditions of this consent for the purposes of:
 - (a) Dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or
 - (c) Complying with the requirements of a relevant rule in an operative regional plan.

DATED this 27th day of June 2006.



.....
R A Budd
Chairperson of the Hearing Committee

**Before the Hearing Panel appointed by Canterbury
Regional Council**

IN THE MATTER OF The Resource Management Act
1991

AND

IN THE MATTER OF Application CRC062419 by Solid
Energy Renewable Fuels Limited
for a discharge permit to
discharge contaminants to air.

Section 42A Officer's Report

Date of Hearing: 2nd June 2006

Report of Tim Mallett

1. I have been employed at Environment Canterbury for the past 7 years in a variety of roles, all of which involved auditing applications for consents to discharge contaminants to air. I am currently employed as a Principal Consents Officer.
2. This report is prepared under the provisions of Section 42A of the Resource Management Act 1991 (RMA).
3. It is worth mentioning at this point that my role in this process is as a neutral advisor to the hearing panel, and is to advise whether the information in front of them, from whatever source, is complete and correct, so they can make their decision based on sound information. It is not my role to reach a particular conclusion on what their decision should be, nor to lobby to achieve that outcome.

INTRODUCTION

4. Solid Energy Renewable Fuels Limited (SERFL) has applied for a resource consent to discharge contaminants to air from 405 domestic pellet burning appliances in new houses in the Christchurch Clean Air Zone 1, as defined in the Proposed Natural Resources Regional Plan (PNRRP).

Background

5. Prior to 2003, pellet burners could be installed and used anywhere in Christchurch provided the specific appliance was authorised under s369(11) of the RMA. The first pellet burner to be authorised was the Envirofire EF III, imported at that time by Pellet Heating New Zealand Limited, with a laboratory emission test result of 1.47 g/kg.
6. On 1 January 2003 the discharge to air from any small scale solid fuel burning device (including pellet burners) in new dwellings¹ became classified as a prohibited activity,

¹ A "new dwelling" is defined in the PNRRP as any dwelling for which the building permit was issued after 31 December 2002, or which didn't have an existing solid fuel burning device as at 31 December 2002).

under rule AQL9 of the PNRRP. In practice this means that, until the PNRRP is operative, anyone wishing to install and use a pellet burner in a new house in Christchurch Clean Air Zone 1 must obtain a resource consent².

7. In October 2003 SERFL obtained a resource consent³ to discharge contaminants to air from a domestic pellet burner in the Christchurch Clean Air Zone. The assessment of effects asserted that emissions of PM₁₀ from the pellet burner were similar to those from a diesel burner, and hence, under the “permitted baseline” argument, the residual effects from the pellet burner, over and above those effects expected from a diesel burner, were nil. Given the knowledge of emission factors at the time, that argument appeared to be reasonable, and since that initial application a further 381 applications for consents for discharges from individual pellet burners have been granted on a non-notified basis.
8. During 2005 decision-makers at Ecan became aware of various pieces of information that suggested that the argument for granting these consents without notification may not be valid. This included new information on real life PM₁₀ emission rates for pellet and diesel burners, and the latest projections on whether the targets for reducing domestic PM₁₀ emissions were likely to be met. Some of this information was presented to the PNRRP hearings, both by Ecan staff and various submitters to the PNRRP. In addition, on 1 September 2005 the NES for ambient air quality came into effect, including requirements to achieve the air quality targets by 1 September 2013. At various time during 2005 SERFL was advised that the individual burner applications would not necessarily be non-notified indefinitely, and that SERFL should provide further information on the cumulative effects of the emissions from pellet burners. In addition, it was suggested that SERFL consider applying for a “global” consent, for a fixed number of pellet burners, rather than continuing to apply on a house by house basis.
9. On 22 December 2005 an application was received from SERFL for a consent to discharge contaminants to air from 405 domestic pellet burners. Further information was requested on 25 January 2006, and a response was received on 15 February. The application was publicly notified on 5 April 2006 as described below.

Notification

Applicant: Solid Energy Renewable Fuels Limited
Address: c/- Anderson Lloyd Cauldwell, P O Box 13 831, Christchurch
Attn: Mark Christensen/Brigid O’Leary

CRC062419 – to discharge contaminants to air from the operation of up to 405 pellet fire appliances installed in new homes, extensions to homes, or homes which do not currently have a solid fuel burning appliance, in the Christchurch Clean Air Zone 1. The appliances will emit no more than 1 g/kg of particulate and have a space heating efficiency of not less than 65%. The contaminants to be discharged include particulate matter, aldehydes, PAHs, and other volatile organic compounds. A consent with a duration of 35 years is sought.

² Under s77C of the RMA if a rule in a proposed plan describes an activity as prohibited, and that rule is not yet operative, then the activity is to be treated as discretionary

³ CRC032273, Mr D McKinnel

Submissions

10. A total of 30 submissions were received by the closing date of 8 May 2006. Two late submissions were also received, but a waiver was neither sought nor granted. Of the 30 submissions accepted, 27 are in support, with 14 of these to be heard, and three are in opposition, with two of these to be heard.
11. The main reasons given by many submitters in support of the application were:
 - (a) Pellet burners have a high heat output relative to other available heating options, and alternative heating devices don't provide sufficient warmth (as an aside, it was disturbing to note the number of submitters who experience significant health problems, many of which are worsened by cold living conditions).
 - (b) Pellet burners have low emissions (some submitters even thought that pellet burner emissions were lower than diesel burner emissions, but provided no data to support this assertion).
 - (c) Pellets are a domestically produced, carbon neutral, renewable resources, whereas all other forms of heating, even electricity (some of which is produced from fossil fuels), use non-renewable, imported, carbon dioxide emitting fuel. These concerns were also associated with uncertainty of supply, and expected cost increases.
12. Other less common reasons given in support were:
 - (a) A concern about the dangers of using gas;
 - (b) Unflued gas heaters introduce moisture to the air in the room;
 - (c) Pellet burners dry the room (presumably by using and discharging room air, and drawing dry outside air as a replacement);
 - (d) The heat from a pellet burner is nicer than that from electricity ;
 - (e) Pellet burners create a nice atmosphere – if you can't have a woodburner, a pellet burner is the next best thing.
13. John Walker has provided a comprehensive submission in support of the application, and I will comment on his submission later in this report.
14. Reasons given by submitters in opposition focus on the fact that pellet burners emit particulate into an already compromised airshed. Mr Colin Campbell, of Avon Electric, has written a more substantial submission with a number of points, most centred on the issue of uncertainty as to whether the NESAQ goal will be met. I agree with many of the issues raised by Mr Campbell, as detailed later in this report. There are one or two comments in the submission that I have responded to in a letter to Mr Campbell, attached to this report.

DESCRIPTION OF THE PROPOSED ACTIVITY

15. The applicant proposes to discharge contaminants to air from up to 405 pellet burners in the Christchurch Clean Air Zone 1 in accordance with the conditions listed in

Appendix B of the application (attached). These are similar to the conditions offered by the applicant, and placed on resource consents for individual burners. They address the type of burner installed, the stack heights, fuel quality, maintenance, and restrictions on the opacity and any odour from the emissions.

LEGAL AND PLANNING MATTERS

The Resource Management Act 1991 (RMA)

16. Section 15(2) of the Resource Management Act (RMA) states that “no person may discharge any contaminant into the air ... from any place ... in a manner that contravenes a rule in a regional plan or proposed regional plan unless the discharge is expressly allowed by a resource consent, or regulations, or allowed by section 20.
17. In addition, s369(11) of the RMA states that, in certain circumstances, the TRP shall be deemed to include a rule to the effect that the regional council may authorised or prohibit the use of fuel burning equipment in a Clean Air Zone.

Regional Plans

Transitional Regional Plan (TRP)

18. The Transitional Regional Plan (TRP) includes the Clean Air Zone (Christchurch) Order 1977. This order prohibits the use in the Christchurch Clean Air Zone of fuel burning equipment that has not been authorised. The applicant has limited the appliances in this application to those approved in accordance with Rule AQL2 of the PNRRP (see condition 1 of applicant’s proposed conditions). In practice, all applicants for Rule AQL2 authorisation for specific appliances simultaneously seek authorisation under s369(11). For clarity, however, I suggest that, if consent is granted, condition 1 be amended to include “and section 369(11) of the RMA” after “Rule AQL2”.
19. The relevant point here is that, prior to rule AQL9 of the PNRRP coming into effect, the applicant could have installed these authorised appliances in new homes without a resource consent.

Proposed Natural Resources Regional Plan (PNRRP)

20. The Proposed Natural Resources Regional Plan Chapter 3:Air (PNRRP) includes rule AQL9, which states that:

"The discharge of contaminants into air in the Christchurch Clean Air Zone 1 from the burning of any fuel in a small scale solid fuel burning device located in ...

a) any dwelling for which building consent was issued after 31 December 2001... or

b) any dwelling that did not have a small scale solid fuel burning device at 31 December 2002, ... unless building consent was issued and any amendments were incorporated in the building consent in accordance with the Building Act 1991 for the installation of the small scale solid fuel burning device before 1 January 2003;

is a prohibited activity for which no resource consent shall be granted".

The properties to which this application relates are in the Christchurch Clean Air Zone 1. Therefore, if the NRRP was operative, the proposed discharge would be prohibited.

21. As an aside, section 88(2) of the RMA states that

"No application shall be made for a resource consent

(a) for a prohibited activity; or

(b) for any activity described as a prohibited activity by a proposed plan once the time for making any submissions or appeals against the proposed plan has expired and

(i) no such submissions or appeals have been made or lodged; or

(ii) all such submissions and appeals have been withdrawn or dismissed"

Regarding s88(2)(a), section 2 of the RMA defines "prohibited activity" as an activity which a plan (my emphasis) prohibits. Section 2 defines a plan as a regional plan or district plan, and defines a regional plan as an operative plan. Therefore the discharge is not (yet) a prohibited activity, and s88(2)(a) does not apply at this time.

Regarding s88(2)(b), there have been submissions made on rule AQL9, and they have not been withdrawn, hence s88(2) does not apply to this application.

Similarly s105 (2)(c) and (d) do not apply, as the PNRRP is not operative, and submissions have been made on Rule AQL9.

22. Section 2 of the RMA defines a non-complying activity as one which contravenes a rule in a plan or proposed plan. As the proposed discharge contravenes rule AQL9, it is non-complying until such times as s88(2) applies.

The National Environmental Standard – Air Quality (NESAQ)

23. The NESAQ came into effect on 1 September 2005. The implications of this NES for the current application are discussed further towards the end of this report.

CONSULTATION

24. The AEE states that no consultation was carried out regarding this application. However I note that the application was publicly notified.

DESCRIPTION OF THE AFFECTED ENVIRONMENT

25. The AEE refers to the receiving environment as being the Christchurch airshed, where winter meteorology and domestic particulate emissions can combine to cause the PM₁₀ concentration to exceed 50 µg/m³ over a 24-hour period. I agree.

ASSESSMENT OF ACTUAL AND POTENTIAL EFFECTS

Scoping

26.

(a) The AEE refers to the effects of PM₁₀ emissions from the pellet burners;

- (b) Subsequent information provided refers to potential effects of other contaminants, including PAHs and dioxins.

27. Submissions to the application refer to the fact that woodwaste pellets are not net emitters of carbon dioxide, whereas alternative domestic heating options (including electricity) do have net carbon dioxide emissions. I note that s104E of the RMA states that a consent authority must not have regard to the effects of a discharge of greenhouse gases on climate, *except to the extent that the use and development of renewable energy enables a reduction in the discharge into the air of greenhouse gases either (a) in absolute terms or (b) relative to the use and development of non-renewable energy*”.

At face value that exception would appear to closely match the current situation, suggesting that the carbon neutral status of pellet burners can be taken into account. However the hearing panel may wish to seek legal advice on this matter prior to deciding whether or not to include this issue in their deliberations.

Adverse effects of particulate (PM₁₀) emissions on human health

28. The AEE does not explicitly address the direct effect of pellet burner emissions on human health. Instead, it focuses on the NESAQ value for particulate of 50 µg/m³ (24 hour average, midnight to midnight, with one exceedence per year), presumably on the assumption that if the discharge doesn't cause this to be exceeded then it is acceptable. Overall I think this is a reasonable approach, the precise relationship between ambient PM₁₀ concentrations and human health effects having been debated extensively in other forums. However it is worth noting that there are health effects at concentrations below 50 µg/m³, there is no formal “no adverse effect level” for particulate, and there are smaller particulate fractions (eg PM_{2.5}, PM₁, and “total number of particles”) that may have stronger correlations with human health effects than PM₁₀, and may become the contaminant of concern in the future.

29. The AEE, and subsequent information provided, essentially puts forward three arguments as to why SERFL considers the effects of PM₁₀ emissions from these 405 appliances will be less than minor, and won't cause the NESAQ guideline to be exceeded. These arguments are:

- (a) The offset argument - installation of pellet burners as replacements for non-compliant solid fuel burners has created an emissions “credit”, which will “offset” the new emissions caused by pellet burners in new homes.
- (b) The emissions argument – 405 pellet burners won't emit a significant amount of particulate.
- (c) The capacity argument – the predictions show the NES will be met, and there is room for 405 pellet burners.

The offset argument

30. The reasoning put forward in the AEE is that pellet burners emit on average 12.8 kg PM₁₀ per day, and Ecan has stated that the average emissions from appliances replacing non-complying woodburners needs to be less than 18 g/day, hence every pellet burner installed creates 5.2 g/day of capacity in the airshed. I have three concerns with this line of reasoning

31. My first concern is that the figure of 18 g/day is based on a number of assumptions. These include the number of solid fuel burning appliances currently being used in

Christchurch, the amount of fuel each appliance uses per night, the amount of particulate emitted per unit of fuel used, the number of each type of appliance that will be present in 2013, and the amount of particulate each of these will emit. None of these values are certain, hence the resulting “target” value for the average grams per night is far from certain. There may well be a set of assumptions that would produce a figure of 18 grams per night, but I have also seen sets of assumptions that produce target values of 12.6 g/night. This is less than one of the estimates of how much the pellet burners will emit on average, so using this figure there is no “credit” available.

32. My second concern is that the so called “credit” created (whenever a pellet fire is installed) may have already been “spent” by any of the complying woodburners that have or will be installed as replacement appliances. Therefore the “credit” isn’t physically available to allocate to pellet burners in new homes. Whether or not this is the case depends on the relative numbers of logburners, pellet burners, and other appliances installed to replace non-complying woodburners and open fires. However there is no certainty as to how many of each of these will be installed, hence no certainty as to whether the theoretical “credit” is in fact available.
33. As an aside, if the pellet burner installed as a replacement is chosen by a person who would otherwise have selected a logburner, then there may well be an argument that some form of emissions “credit” had been earned. However if the person was wavering between a pellet burner and a heat pump, then one could argue that in fact an emissions “debit” has been created, which needs to be “paid” for before any space is available for pellet burners in new houses.
34. My third concern relates to the use of an “offset” to satisfy the NESAQ. The NESAQ (Regulation 17C) includes a requirement where, in certain circumstances, an application must be declined unless the applicant “reduces the amount of PM₁₀ discharged from another source into the same airshed”. However it requires that the reduction must “be effective for the duration of the resource consent” (see discussion of this below). While I am not aware of any case law on this regulation, I have assumed that this could apply in a situation where, for example, an applicant wishing to obtain consent for a new coal boiler in Christchurch might negotiate with a holder of an existing consent (for a similar amount of particulate discharged) whereby the existing consent would be surrendered in exchange for the granting of the new consent. There could be commercial circumstances where this could be beneficial to both parties. However the key point here is that the existing, consented discharge **could** have continued for the duration of the existing consent, hence is available as a legitimate reduction if it were to cease discharging. This is different to the SERFL situation, where the existing emissions from non-complying burners will have to cease shortly anyway.
35. Having said that, there are two situations where a genuine “credit” could be created. Firstly, if a person with a complying woodburner decided to replace it with a pellet burner for some reason. In that case the discharge from the compliant woodburner could have presumably continued for the duration of the pellet consent (whatever that may be), hence is available as a legitimate reduction under section 17C. However this is a rather specialised case.
36. Secondly, if there is a reasonable, soundly-based expectation that a certain number of compliant logburners will be installed as replacement appliances, and it can be shown that this number has been actively reduced by the sale of pellet burners as replacement appliances, without impacting on the number of lower emitting appliances installed, then there may arguably be a theoretical credit available, though it may be difficult to identify this or quantify it.

37. Finally, as I will explain later in the report, I don't consider that regulation 17C applies in this case, so there is no requirement to satisfy it in order to grant the consent. (Conversely there are plenty of reasons not to grant the consent without resorting to Regulation 17C).

The total emissions argument

38. Another line of reasoning raised in the further information provided on 15 February 2006, is that the combined emissions from 405 pellet burners would amount to only 4.1 kg/day, which is only 0.4 or 0.5% of the predicted emissions from all domestic heating appliances in Christchurch in 2013, and hence won't significantly influence the "ability" of Christchurch to meet the NES standard.
39. This document also notes that, if the emissions from a diesel burner are subtracted from this figure (under the "permitted baseline" argument), the net emissions from the 405 pellet burners drop to 1.9 kilograms per day.
40. In my view this argument needs to be considered in the context of the cumulative effects, being the effects of these pellet burner emissions together with all the emissions from existing appliances that can still be used in 2013, and all new appliances that are introduced as permitted activities. If there is a high probability that the NES target will not be met, then it may be that even a small additional discharge is not acceptable. However if the NES is likely to be met, then this small additional amount may be of little significance, and hence be acceptable. This is explored further below.
41. I note that the hearing panel should not take into account the effects of any future pellet burners that may be the subject of future consent applications, as these come into the category of "precedent" effects, not cumulative effects.

The capacity argument

42. One of the documents provided on 15 December was a copy of the evidence prepared by Roger Cudmore, of Kingett Mitchell, and presented to the PNRRP hearings in 2005 on behalf of SERFL. While this didn't include the appendices of Mr Cudmore's report, I presume that it was intended to, and I have since obtained copies of these appendices. This evidence included a number of predictions about the likely numbers of various domestic heating appliances in Christchurch, both now and over the next 16 years, and the likely emissions from these, and the reduction in emissions required to meet the NESAQ. It included a number of recommended adjustments to the values used by Angie Scott (Ecan air quality scientist) in her evidence to the PNRRP hearing.
43. On the basis of Roger Cudmore's adjusted values, it is possible to "show" that there will be capacity in the airshed to absorb the emissions from these 405 pellet burners and still meet the NESAQ target. However, using different values for the appliances numbers, emissions, and reduction required, it is possible to "show" that the target will not be met, and there is no capacity to authorise any new emissions, however low.
44. To try and clarify the effects of different assumptions, I have reproduced in Table 1 a set of assumptions from Angie Scott on the numbers of appliances and their emission factors, as quoted in Roger Cudmore's evidence to the PNRRP hearing, and in Table 2 the corresponding assumptions made by Roger Cudmore. Note that Angie Scott's figures correspond to an 88% reduction in domestic emissions required to meet the target (i.e. a reduction to 12% of 2002 emissions) whereas Roger Cudmore's figures correspond to an 82% reduction (i.e. a reduction to 18% of 2002 emissions).

Table 1 – Ecan predictions – possible appliance numbers and emissions (quoted in Cudmore’s evidence to the NRRP hearing)

Type	g/kg	kg/day	g/day	Number of appliances kg/day		Number of appliances kg/day		Number of appliances kg/day		
				2002	2013	2013	2018	2018		
Open fire - wood		9	14.5	130.5	8570	1118.4				
Open fire - coal		21	9.3	195.3	3703	723.2				
Multi-fuel - wood		12	18	216.0	2962	639.8				
Multi-fuel - coal		19	8.8	167.2	2116	353.8				
W/b – pre 1992		12	13.8	165.6	13542	2242.6				
W/b - 1992 - 2000		5	15.5	77.5	16582	1285.1	4738.0	367.2		
W/b - sub 1.5		3	15	45.0	3777	170.0	13455.0	599.0	11696 526.3	
Pellet		1.6	8	12.8	484	6.2	1489.0	37.4	3984 51.0	
Diesel		0.3	1.8	0.5	1587	0.9	2997.0	1.6	3507 1.9	
Gas		0.032	3.3	0.1	32163	3.4	47947.0	5.1	54518 5.8	
Electricity		0	0	0.0	72048	0.0	49447.0	0.0	54733 0.0	
					157534	6543.242	121364	1010.3	128438	585.0
								15.4%		8.9%

Table 2 – Cudmore predictions – possible appliance numbers and emissions – from evidence to NRRP hearing.

Type	g/kg	kg/day	g/day	Number g/day		Number kg/day		number kg/day	
				2002	2013	2013	2018	2018	2018
Open fire – wood	20	20	400.0	5984	2393.6				
Open fire – coal	21	12	252.0	2586	651.7				
Multi-fuel – wood	12	12	144.0	1913	275.5				
Multi-fuel – coal	19	8	152.0	1367	207.8				
W/b - pre 1992	12	12	144.0	13542	1950.0				
W/b - 1992 – 2000	6	12	72.0	16582	1193.9	4738	341.1		
W/b - sub 1.5	3	12	36.0	3777	136.0	13381	481.7	12214	439.7
Pellet	1.1	9.3	10.2	484	5.0	1522	15.6	1848	18.9
Diesel	1.1	5	5.5	1587	8.7	2798	15.4	3199	17.6
Gas	0.032	5	0.2	32163	5.1	45972	7.4	51283	8.2
Electricity	0	0	0.0	72048	0.0	48476	0.0	53303.0	0.0
				152033	6827.278	116887	861.2	121847	484.4
							12.6%		7.1%

45. It would be possible to work through all the differences in the assumptions by Cudmore and Scott and offer comment on which I considered to be more appropriate, and hence arrive at a third set of assumptions. This would be an interesting exercise, as both sets of assumptions are well reasoned, and where there are differences there are substantive issues behind them, such as the open fire emission factor.
46. However I am not convinced that this further analysis is necessary for the purposes of deciding this consent application. The reason is that, regardless of which set of assumptions is used, the critical point that is shown by both the spreadsheets, which I understand is broadly accepted by both Roger Cudmore and Angie Scott, is the fact that probability of meeting the NESAQ goal by 2013 is dominated by two numbers, the total number of logburners remaining in 2013, and the particulate emissions from these logburners relative to the burners that have been removed since 2002.
47. If the number of people retaining logburners or converting to authorised logburners is higher than expected, and/or the emissions from these are higher than expected (relative to the emissions from removed burners), then there is little chance of achieving the NES AQ goals. If, by contrast, the number of woodburners remaining is lower than expected, or the relative emissions are lower than expected, then there is a very good chance of meeting the NESAQ goals, regardless of how many pellet burners are installed. (I shall attempt to show this at the hearing by displaying the Excel spreadsheet and altering the values as required).
48. The challenge for decision makers today, in my view, is to determine whether it is appropriate to grant the current application in the face of this uncertainty.
49. As noted earlier, John Walker has provided a comprehensive submission in support of the applicant, in which he explores many of the assumptions reported by Angie Scott and Roger Cudmore in their respective submissions to the air plan hearings. Essentially Mr Walker undertakes a similar exercise to my use of the emission spreadsheets (above), and seeks to show, as I have attempted to, that the critical numbers (in terms of whether or not the NESAQ target is achieved) are the number of logburners remaining in 2013, and the actual emissions from them relative to those that have been removed. I agree with much of the content of the submission.
50. There are, however, two aspects of Mr Walker's submission that I disagree with. Firstly, he refers at various times to the "offset" (as discussed previously in this report), and uses phrases such as "Ecan has decided to provide all of this offset to the log burner industry". This is misleading. Firstly, Ecan has made no decision yet regarding the allocation of airshed capacity to pellet burners, beyond the inclusion of rules AQL2 and AQL9 in the PNRRP. One such decision will be made if and when the elected councillors consider and adopt the recommendation of the NRRP hearing panel, however this has not yet been tabled. Another, if somewhat smaller, decision will be made when this hearing panel decides on the current application. Until then there are simply staff reports on the table, including this hearing report and the evidence provided by Angie Scott. While Angie Scott's reports have discussed the numbers involved, my impression is that this is in the context of a target for the average emissions to be achieved, not a rule as to what one particular type of appliance must achieve.
51. Secondly, in his evidence Mr Walker suggests using the projected number of pellet burners installed as replacements for logburners, and assumes that these have displaced the other heating options available in the proportions given in his Table 3

(page 6), which is taken from an Ecan staff report. This is an interesting idea, but I can see no practical way of confirming that these pellet burners did in fact displace replacement woodburners in the proportions suggested, or indeed of requiring that these pellet burners must replace that many woodburners.

52. As an aside, if one could set a cap on the number of woodburners that could remain in 2013, then much of the uncertainty about final emissions and reaching the NESAQ target would be eliminated, and there would be much more certainty about how much spare capacity could be allocated to other forms of heating, such as pellet burners. However at present there is no such “cap”, and no mechanism for producing one, and such a “cap” would be outside the scope of this application. Hence the decision makers are still faced with the task of deciding whether this current application is acceptable in the light of the inherent uncertainty about future emissions.

Adverse effects of other contaminants on human health

53. Other contaminants of potential relevance are nitrogen dioxide, PAH's, and various other volatile organic compounds. The applicant has stated that these emissions are lower than for conventional woodburners, but has not modelled the emissions from pellet burners explicitly.
54. From my previous audits of single pellet burner applications I agree that these are not likely to be an issue from 405 well-dispersed pellet burners, however it may be an issue in the future if large numbers of pellet burners were concentrated in a small area.

Product Stewardship

55. In the course of discussions with SERFL , the issue of product stewardship arose. Essentially this refers to steps the applicant may wish to take by way of maintenance agreements, regular testing of appliances, random monitoring etc, to improve certainty that the appliances will continue to emit no more particulate over the life of the burner than what is assumed when the burner is new. Clearly the longer the duration of the consent, the more relevant this becomes. I note that the applicant has requested a duration of 35 years, so the hearing panel is required to consider the potential effects from these 405 burners (or their replacements) for that period of time.
56. There is a second aspect to product stewardship in this instance, and that is the question of determining how much particulate the pellet burners emit in “real life”. I understand that some work has been done on this, including the “6 hour test” regime, however it would be valuable to have more representative data on what these appliances emit across a range of “real life” settings (i.e. in-house measurements), to establish a baseline, to which any future measurements of emissions in-house could be compared.
57. To date the applicant has not proposed any substantial form of product stewardship, apart from the offer in paragraph 15 of the further information, to contract pellet fire owners to ensure they are “fully aware of the conditions”, and to “schedule ongoing maintenance of the appliance”. The applicant may wish to offer further clarification of this offer at the hearing. The hearing panel may also wish to seek further clarification of this offer from the applicant before finalising its deliberations on whether the effects will be acceptable for the duration of the consent, and before determining an appropriate duration for the consent.

Positive effects of granting the consent

58. A number of submissions refer to the positive effects of allowing pellet burners. These include their adequate heat output (regardless of outside temperature), the fuel is “carbon neutral”, it is not imported, and not affected by electricity shortages. Clearly, if one puts aside the issue of particulate emissions, there is a strong case in favour of these appliances.

CONSIDERATION OF ALTERNATIVES

59. Regarding alternative methods of discharge, assuming a pellet burner is installed, there are clearly few alternative methods of disposing of the contaminants other than by discharging them to air via a suitable chimney stack.
60. Regarding alternative forms of home heating, these have been well canvassed in the material presented to the PNRRP hearing.

POLICIES AND OBJECTIVES

Regional Policy Statement (RPS)

61. The Regional Policy Statement (CRC 1998), Chapter 13 Air, contains the following Objectives and Policies that are relevant to this application:

Objective 1. Maintain or improve ambient air quality so that it is not a danger to people’s health or safety, and to reduce the nuisance effects of low ambient air quality.

Policy 1(c) Give priority to ensuring ambient air quality improvements are achieved in Christchurch and Timaru.

Objective 2. Avoid, remedy, or mitigate the adverse effects on people, flora and fauna, and other natural and physical resources resulting from discharges of contaminants into the air.

Policy 3. Set standards, conditions, and terms for discharges of contaminants into the air to avoid, remedy, or mitigate adverse effects.

Policy 5a. Activities which require resource consents to discharge contaminants into air should be encouraged to locate away from residential dwellings, educational facilities, hospitals, shops, and other similar public buildings unless adverse effects can be avoided or mitigated.

62. The discharges to air proposed in the application will clearly neither maintain nor improve ambient air quality. Therefore granting this application is not strictly consistent with Objective 1 nor Policy 1(c). The key question is whether the positive effects of the proposal mean that the breach of the wording of the policies is acceptable.

Proposed Natural Resources Regional Plan (PNRRP) – Chapter 3 Air Quality

63. The PNRRP was publicly notified on 1 June 2002, submissions have been received, and a hearing has been held. At present no decisions on the plan have been received from the commissioners. This raises the interesting question of what weight should be given to the policies, objectives, and rules of the PNRRP for this application. On the one hand, it is only a proposed plan, with no decisions, on the other hand there is no

other plan in existence (apart from the TRP, which has no policies or objectives), so the PNRRP is the only relevant plan for this application.

64. At face value, whatever weight is given to it, the PNRRP appears to clearly signal that applications such as this one for solid fuel burners (of any type) in new homes should be declined. Objective AQL3 states the PNRRP goal of achieving only one annual exceedence of $50 \mu\text{g}/\text{m}^3$ of PM_{10} , and Policy AQL13 proposes the policy, as reflected in Rule AQL9, of prohibiting from 1 January 2003 the installation of solid fuel burners in new houses, and houses that don't already have solid fuel burners. However since that rule was written further information has become available. This includes:
- (a) new laboratory test emission factors for pellet burners (the first pellet burner authorised had an emission factor of 1.47 g/kg, which is partly why they were included with log burners in the PNRPP),
 - (b) "real life" simulation emission factors for pellet burners,
 - (c) "real life" test results for logburners (including the report by Angie Scott prepared for the MfE⁴),
 - (d) Updated information on current appliance numbers in Christchurch, and predictions of future appliance numbers.
65. It could be argued that, in the context of s104, the hearing panel has an obligation to consider this additional technical information in conjunction with the rules in the plan, when coming to a decision on this application, and the weight to give the PNRRP. This raises the question of whether the hearing panel should request the relevant evidence that was given to the PNRRP hearing be presented, and offer all parties the chance to comment on it.
66. In my opinion it is not necessary to relitigate this planning evidence in detail, as the key issue that emerges from it is the uncertainty of the predictions and the overwhelming role of logburners in the overall emissions in 2013. In addition, the question before the panel today is not whether to allow unlimited numbers of pellet burners into new homes, but whether to allow 405. However I am aware that, if the panel wished to consider the planning evidence, they have the right to do so, provided all parties have a chance to respond to that evidence.

PART 2 MATTERS

Purpose of the RMA (s5)

67. Section 5 of the Act refers to the sustainable management of natural and physical resources, and to "safeguarding the life-supporting capacity of air, water, soil, and ecosystems". The emissions described in the AEE, from 405 pellet burners in new homes, will clearly not improve air quality in Christchurch. If sufficient pellet burners go into existing homes which otherwise would have installed compliant woodburners, then the net effect of all pellet burner installation could be a decrease in particulate emitted, which would be consistent with section 5. However, regarding just the 405 appliances, the question is whether the slight increase in overall PM_{10} emissions requested in the application is acceptable.

⁴ Real-life emissions from residential woodburning appliances in New Zealand, Scott, AJ; 2005; Ministry for the Environment.

Matters of National Importance (s6)

68. The matters of sections 6(a) to 6(d) should not be compromised by the proposed activity. Section 6(e) requires the consent authority to recognise and provide for ..."the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga". Concerns of Tangata Whenua regarding air quality include the possible contamination of waterways and effects on mahinga kai, wildlife, and indigenous plants. This is addressed below.

Other Matters (s7)

69. The matters of section 7 of the Act should not be compromised by the proposed activity, with the possible exception of section 7(f), "maintenance and enhancement of the quality of the environment". The emissions described in the AEE will not enhance the quality of the environment in terms of PM₁₀ concentrations in air. Again the question is whether the predicted effects on the quality of the air are acceptable.

Principles of the Treaty of Waitangi (s8)

70. Section 8 of the Act requires the consent authority to take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). The Tuahuriri Runanga was informed of this consent application on 13 January 2006. No response was received, and the Runanga did not submit on the application. I note that Sir Tipene and Lady O'Regan submitted in support of the application, however I understand that this was in a private capacity, and not as formal representatives of Ngai Tahu or any of the Runanga. In my opinion, granting this application with the recommended conditions does not appear to contravene the principles of the Treaty of Waitangi, or compromise section 6(e) of the RMA.

NATIONAL ENVIRONMENTAL STANDARDS

71. On 1 September 2005 the National Environmental Standard for Air Quality (NESAQ) took effect. This includes regulation 17, regarding the issuing of resource consents to discharge contaminants to air. Regulation 17(1) states that:

17 (1) Regulations 17A to 17C apply to an application for a resource consent to discharge PM10 into an airshed before 1 September 2013 if-

(a) the concentration of PM10 in the airshed already breaches its ambient air quality standard; and

(b) the discharge to be permitted by the resource consent is likely to increase significantly the concentrations of PM10 in the airshed (bold added)

72. Christchurch Clean Air Zone One has been gazetted as an airshed for the purposes of Regulation 17. Clearly condition (a) is met, as monitoring results show the 50 µg/m³ limit is breached more than once per year. However condition (b) is less straightforward. Council has provided guidance to staff that decisions regarding the term "significant" shall only be made after having regard to the level of compliance with the requirements of the PNRRP, and the extent to which the proposed discharge would be consistent with the reductions required to meet the NESAQ target (Council minutes, 24 August 2005). As noted above, the application is for an activity described as prohibited in the PNRRP, so does not comply with it. Also, being an increase in domestic emissions, it is clearly not consistent with the reductions required to meet the NESAQ.

73. However the above guidance has no statutory basis, and is not based on any case law. It was simply an attempt by Councillors to assist staff with the rather vexed problem of interpreting the NES, and in my view was particularly aimed at notification decisions and non-notified applications, where staff have been delegated decision making responsibilities. In addition the advice is phrased as “have regard to”, and cannot fetter the discretion of decision makers. It could also be argued that the expected mass emissions from 405 pellet burners, at an estimated 4–5 kg/day, are unlikely to “significantly” increase the concentration of PM₁₀ in the airshed even when emissions from other sources are reduced from 10 tonne per day to about 1 tonne per day. It is therefore arguable whether or not Regulation 17 applies to this application.
74. If Regulation 17 does apply, then Regulation 17A states that a consent authority must “decline” an application for a resource consent to which regulation 17(2) applies (ie process it under s17C) if the discharge to be permitted (authorised) by the consent is likely to cause, at any time, the concentration of PM₁₀ in the airshed to be above the straight line path. It is my understanding that, based on currently available figures, we are not currently above the straight line path, although that could clearly change depending on progress made with removing woodburners. However, it could be argued that, if the concentration of PM₁₀ does move above the straight line path, it is very unlikely to be the emissions from these 405 pellet burners alone that have caused the exceedences. It will be cumulative effect of all emissions, and dominated by the emissions from too many logburners, or high emissions from logburners, that causes the exceedences, not just the emissions from 405 pellet burners.
75. That is not to say that, if we are above the straight line path, the emission from 405 burners is necessarily acceptable. Arguably any new discharge of PM₁₀ is of concern if the straight line path is exceeded. However that question of acceptability is different from the 117A test for causation.
76. Finally, if an application is “declined” under 17A, then Regulation 17C states that the consent authority must decline an application for a resource consent (to which regulation 17(4) applies) unless the applicant reduces the amount of PM₁₀ discharged from another source into the same airshed, for the duration of the resource consent. This is presumably why SERFL has raised the question of “offsets” in its original application. As noted earlier, even if the overall use of pellet burners creates a net reduction in emissions, and hence some capacity in the airshed, I don’t think the proposal by SERFL is consistent with the “offsets” referred to in 17C. However I also don’t think this is relevant, as it appears that Regulation 17 does not apply to this consent, by virtue of both 17(1)(b) and 17A.

OTHER RELEVANT MATTERS

Decisions of the Environment Court

77. I am not aware of any Environment Court decisions that would provide useful guidance on either interpretation of the NESAQ or on the specific weighting to be given to the PNRRP rules in the light of newly available information. There are decisions on weighting to be given to proposed plans (e.g. the Lynton Dairies Limited decision from Judge Smith), which may be of some relevance.

Previous Council Decisions

78. Ecan has previously granted numerous consents for discharges from pellet burners in individual houses, as noted previously, however this was essentially on the basis of the “permitted baseline” argument. More recent evidence suggests that pellet burners

are likely to emit slightly more particulate than diesel burners per night, hence this argument may no longer be valid.

79. Ecan has received two applications for consents to discharge from domestic logburners in Christchurch. One has been publicly notified, and both are on hold, pending the outcome of the PNRRP hearings.

RECOMMENDATION

Grant or Decline

80. I consider that the panel could either grant or decline the application, and provide a robust explanation for the decision in both cases.
81. On one hand, if the panel wishes to take a conservative approach, it could be argued that it is not appropriate to grant consent to emit more particulate than that envisaged by the PNRRP, when the issue of whether the NESAQ targets are going to be met is still very uncertain.
82. On the other hand, if the panel wishes to take a more liberal approach, it could be argued that the emissions from these 405 burners will not, in itself, cause the NESAQ target to be breached. The target either will or will not be met, but this will depend primarily on the number of woodburners remaining in 2013, and the amount of particulate they each emit (relative to emissions from those that have been removed). In this case, it could be seen as unreasonable to deny those 405 households the option of a pellet burner, with all its positive effects, when the problem of breaching the target is primarily caused by a different group of appliances.

Duration

83. If the panel is of a mind to grant this application, the question of duration arises. The applicant has requested a duration of 35 years. There is guidance on this matter in Chapter 1 of the PNRRP, and in various examples of case law, including Prime Range Meats Limited (C127/98) and PVL Protein Ltd.
84. In my opinion, however, the question of duration in this instance is closely linked to the question of product stewardship. If the applicant were able to offer some robust process by which they could guarantee, to a reasonable degree, that the emissions from the pellet burners would remain at the expected levels (about 10 g/day) for the next 35 years, then there may be some argument for granting the duration sought.
85. If, at the other extreme, there is no such offer made at the hearing (and I note there has been no robust offer made to date), then the panel may consider reducing the duration substantially below this, to perhaps 15 years or less. Between these two, one could impose a duration based on the robustness of the product stewardship proposal.
86. There is obviously some appeal in considering a duration of 7 years, which would expire just before the 1 September 2013 deadline. This could be a mechanism for dealing with the current uncertainty as to whether the NES target will be met. In this case any application for a renewal consent could include information on progress towards meeting the NES target, together with any information that SERFL had obtained on real life emissions from the burners as they age. I note also that, if such a replacement consent was declined, that those 405 households would have to replace their appliances before they had intended to, and perhaps before the expiry of the economic life of the appliance.

87. Alternatively, if a longer duration were granted, the panel could require such real life testing on older burners as a condition of the consent, and the consent could be reviewed if the results of those tests indicated higher than expected emissions, or if ambient monitoring indicated higher than expected PM₁₀ concentrations.
88. Overall, without knowing what the applicant may offer by way of product stewardship, it is difficult to make a recommendation on duration.

RECOMMENDED CONDITIONS

If consent is granted, I agree with the conditions proposed by the applicant, as provided in Appendix "B" of the original application (attached). However I suggest the panel also consider the following:

- (1) A condition requiring that SERFL provided Ecan with a list of addresses of where the pellet burners have been installed. This would assist monitoring compliance with the limit of 405 appliances, assist with any response to complaints, assist with monitorint any product stewardship arrangement, and with responding to any person discharging from a pellet burner not authorised by any consent.
- (2) A condition requiring any product stewardship arrangement that the applicant may propose at the hearing
- (3) A condition requiring testing of the emissions from a random selection of burners at some stage during the duration of the consent
- (4) A condition limiting the grams per megajoule emitted to that proposed by the applicant (as opposed to the criteria in condition 1).

Signed: _____

Date: _____

Tim Mallett
Principal Consents Officer

5. APPOINTMENT OF COMMISSIONERS TO HEAR AND DECIDE RESOURCE CONSENT APPLICATIONS

5.1 CDL LAND (NZ) LIMITED – CRC061671 AND CRC062602

Applications

The above applicant has applied for the following resource consents relating to the discharge of stormwater onto land, in circumstances which may result in contaminants entering groundwater, from an 83 lot, 14.95-hectare residential subdivision, located at Stonebrook Drive between Brookside Road and Main South Road, Rolleston:

CRC061671 - the discharge of stormwater from the roofing and hardstand areas within each lot of the subdivision.

CRC062602 - the discharge of stormwater from roading within the subdivision.

Stormwater will be discharged to land, at or about map reference NZMS 260 M36:5863-3415 via sumps and soakpits. Contaminants in the discharges may include suspended sediment, nutrients, heavy metals, hydrocarbons and micro-organisms.

The applicant has requested a consent duration of 35 years.

Note: A consent to subdivide the land was applied for, publicly notified, and granted by the Selwyn District Council (R306629).

The Regulation Hearing Committee at its 15 December 2006 meeting, resolved that a hearing be scheduled under Section 100 Resource Management Act 1991 to require the applicant to present evidence in respect of their consent applications.

The applicant subsequently requested that an independent Commissioner be appointed to hear and decide the applications.

The Commissioner recommended has satisfied Council staff he has the necessary criteria, including technical ability and RMA Certification Accreditation, to carry out the duties required.

Report prepared by Donald Fraser, Consents Hearings Officer.
Report endorsed by Don Rule, Consents Manager.

Recommended

- (a) *That the Committee appoint Dr Brent Cowie as a Commissioner to hear and decide resource consent applications CRC061671 and CRC062602 by CDL Land (NZ) Limited with the full powers of the Council as a consent authority.*
- (b) *That the Committee appoint Dr Brent Cowie to deal with any preliminary matters associated with (a) with the full powers of the Council as a consent authority.*

5.2 FIRTH INDUSTRIES LIMITED – CRC070401

Application

To discharge contaminants into air from the operation of a concrete batching plant at 219 Jacks Pass Road, Hanmer Springs, at or about map reference NZMS 260 N32: 9461-5491. Contaminants to be discharged include cement dust including suspended particulates less than ten micron (PM₁₀), dust from the handling and storage of aggregate and sand, and fugitive dust from site activities.

A consent with a duration of 35 years is sought.

A hearing is required to be scheduled to hear and decide the consent application.

The Commissioner recommended has satisfied Council staff he has the necessary criteria, including technical ability and availability, to carry out the duties required.

Report prepared by Donald Fraser, Consents Hearings Officer.
Report endorsed by Don Rule, Consents Manager.

Recommended

- (a) *That the Committee appoint Robert Nixon as a Commissioner to hear and decide resource consent application CRC070401 by Firth Industries Limited with the full powers of the Council as a consent authority.*
- (b) *That the Committee appoint Robert Nixon to deal with any preliminary matters associated with (a) with the full powers of the Council as a consent authority.*

5.3 PAUL SMITH EARTHMOVING 2002 LIMITED – CRC040303

Application

To discharge contaminants to land from a proposed clean-fill operation at a quarry at Kellands Hill. The contaminants include untreated timber, stumps, old bitumastic seal, concrete, reinforced concrete, demolition material excluding asbestos and asbestos cement products, and limited amounts of green slash. The proposed site is part of the former Port of Timaru quarry, located approximately 630 metres west from Kellands Hill Road, Timaru, at or about map reference NZMS 260 J39: 6643-4754.

The applicant has requested a consent duration of 20 years.

A hearing is required to be scheduled to hear and decide the consent application.

The Commissioner recommended has satisfied Council staff he has the necessary criteria, including technical ability and availability, to carry out the duties required.

Report prepared by Donald Fraser, Consents Hearings Officer.
Report endorsed by Don Rule, Consents Manager.

Recommended

- (a) *That the Committee appoint David McLernon as a Commissioner to hear and decide resource consent application CRC040303 by Paul Smith Earthmoving 2002 Limited with the full powers of the Council as a consent authority.*
- (b) *That the Committee appoint David McLernon to deal with any preliminary matters associated with (a) with the full powers of the Council as a consent authority.*

5.4 WAIMAKARIRI DISTRICT COUNCIL – CRC041162.1

Application

To change a condition of resource consent CRC041162, which authorises Waimakariri District Council to discharge up to 57,000 cubic metres per day of treated sewage effluent into Pegasus Bay via an ocean outfall. The discharge comprises of combined treated sewage effluent from within the Waimakariri Eastern Districts, including Rangiora, Kaiapoi, Woodend and Waikuku Beach sewage treatment plants.

Condition 11 currently requires that the median concentration of total suspended solids in the discharge will not exceed 50 grams per cubic metre. Waimakariri District Council proposes to increase this median concentration of total suspended solids to 200 grams per cubic metre.

This is the only change of condition that is sought.

The discharge is located approximately 1.5 kilometres offshore and 2.7 kilometres north of the Waimakariri River mouth, at or near map reference NZMS 260 M35:880-662. The consent expires on 12 July 2039.

A hearing is required to be scheduled to hear and decide the consent application.

The Commissioners recommended have satisfied Council staff they have the necessary criteria, including technical ability and availability, to carry out the duties required.

Report prepared by Donald Fraser, Consents Hearings Officer.
Report endorsed by Don Rule, Consents Manager.

Recommended

- (a) *That the Committee appoint Dr Greg Ryder and John Lumsden as Commissioners to hear and decide resource consent application CRC041162.1 by Waimakariri District Council with the full powers of the Council as a consent authority.*
- (b) *That the Committee appoint Dr Greg Ryder and John Lumsden to deal with any preliminary matters associated with (a) with the full powers of the Council as a consent authority.*

5.5 DARNLEY FARM LIMITED – CRC020526.1

Application

To change Condition 2 of resource consent CRC020526 to take and use groundwater at Culverden.

The applicant has requested that a Commissioner be appointed to decide whether the application be processed with or without notification and then consider and decide the application.

The Commissioner recommended has satisfied Council staff he has the necessary criteria, including technical ability and RMA Certification Accreditation, to carry out the duties required.

Report prepared by Donald Fraser, Consents Hearings Officer.
Report endorsed by Don Rule, Consents Manager.

Recommended

That the Committee appoint Paul Rogers as a commissioner in respect of resource consent application CRC020526.1 by Darnley Farm Limited with the full powers of the Council as a consent authority to:

- (a) *decide whether the resource consent application shall be processed with or without notification;*
- (b) *determine any preliminary matters associated with the resource consent application; and*
- (c) *decide the resource consent application with or without a hearing.*

5.6 A K C OLIVER AND S EDWARDS – CRC071482

Application

To discharge up to 1400 litres per day of domestic sewage effluent to land at Birches Road, Prebbleton.

It is Council policy to appoint a Commissioner when resource consent applications are lodged by a Council staff member.

The Commissioner recommended has satisfied Council staff he has the necessary criteria, including technical ability and RMA Accreditation Certification, to carry out the duties required.

Recommended

That the Committee appoint Barry Loe as a commissioner in respect of resource consent application CRC071482 by A K C Oliver and S Edwards with the full powers of the Council as a consent authority to:

- (a) decide whether the resource consent application shall be processed with or without notification;*
- (b) determine any preliminary matters associated with the resource consent application; and*
- (c) decide the resource consent application with or without a hearing.*

6. APPOINTMENT OF COMMISSIONER TO HEAR AND DECIDE OBJECTION TO RESOURCE CONSENT DECISIONS

6.1 ASHBURTON DISTRICT COUNCIL – CRC070615

A hearing is required to decide an objection lodged under Section 357 of the Resource Management Act by the Ashburton District Council to the decision on resource consent CRC070615 to discharge stormwater at East Street, Ashburton.

The Commissioner recommended has satisfied Council staff she has the necessary criteria, including technical ability and availability to carry out the duties required.

Report prepared by Donald Fraser, Consents Hearings Officer.
Endorsed, Don Rule, Consents Operations Manager.

Recommended

- (a) *That the Committee appoint Sharon McGarry as Commissioner to hear and decide resource consent application CRC070615 by Ashburton District Council with the full powers of the Council as a consent authority.*
- (b) *That the Committee appoint Sharon McGarry to deal with any preliminary matters associated with (a) with the full powers of the Council as a consent authority.*

6.2 A C MATHIAS – CRC071571

A hearing is required to decide an objection to a decision on consent application CRC071571 to decline an application for a Certificate of Compliance.

The Commissioner recommended has satisfied Council staff she has the necessary criteria, including technical ability and availability, to carry out the duties required.

Report prepared by Donald Fraser, Consents Hearings Officer.
Report endorsed by Don Rule, Consents Manager.

Recommended

- (a) *That the Committee appoint Sharon McGarry as Commissioner to hear and decide resource consent application CRC071571 by A C Mathias with the full powers of the Council as a consent authority.*
- (b) *That the Committee appoint Sharon McGarry to deal with any preliminary matters associated with (a) with the full powers of the Council as a consent authority.*