

NELSON CITY COUNCIL

**Nelson Air Quality Plan**

Plan Change A1  
Changes to Various Provisions

**Report of Hearing and Decisions on Submissions**

Hearings Commissioner  
Sylvia Allan

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## APPENDIX 1 – CONSOLIDATED AMENDMENTS TO PLAN CHANGE A1

# **COMMISSIONER DECISION ON PROPOSED PLAN CHANGE A1 – NELSON AIR QUALITY PLAN**

## **CHANGES TO VARIOUS PROVISIONS**

### **1. INTRODUCTION**

- 1.1 I, Sylvia Allan, was appointed by Nelson City Council on 27<sup>th</sup> April 2011 as a Hearings Commissioner, to hear, consider and decide the submissions and further submissions on proposed Plan Change A1 to the Nelson Air Quality Plan.
- 1.2 The hearing was conducted in accordance with the requirements of the Resource Management Act 1991 (RMA), including the First Schedule to the Act. This report provides the record of the hearing and decisions in terms of Clause 10 of the First Schedule.
- 1.3 Proposed Plan Change A1 is in six parts (Plan Changes A1.1 to A1.6), each addressing a specific aspect where the current provisions of the Air Quality Plan, operative 2005, requires updating, correction or change.
- 1.4 The Proposed Plan Change was publicly notified on 25<sup>th</sup> September 2010. Seven submissions were received. The decisions requested were summarised and notified for further submissions on 26<sup>th</sup> March 2011. Two further submissions were received.
- 1.5 No submissions were received on Plan Changes A1.2 and A1.3, which cover the situation of urban expansion and the application of rules which apply to urban areas to areas that have hitherto been rural areas and provides transitional provisions in these areas, and Plan Change A1.5, which removes the ability to burn certain agricultural plastics as a permitted activity. No decisions are therefore required in relation to these three parts of Proposed Plan Change A1.

### **2. OFFICER'S REPORT**

- 2.1 A comprehensive Planning Officer's Report (Section 42A Report) was prepared for the hearing and provided to submitters and further submitters. This included a description of the relevant part of the Proposed Plan Change, an outline of the consultation and investigations undertaken in progressing the Plan Change prior to its public notification, a discussion and assessment of the relevant statutory context including the RMA, National Environmental Standards (and their amendments), relevant objectives and policies in the Nelson Regional Policy Statement and the Nelson Regional Air Quality Plan, and the one Iwi management plan applying within the Nelson region.
- 2.2 The Report provided background, discussion and recommendations in relation to the submissions on the specific parts of the Proposed Plan Change.
- 2.3 As well as the Planning Officer's Report, a Section 32 Report – an evaluation of alternatives, benefits and costs in relation to the Proposed Plan Change – was available.

### **3. HEARING**

- 3.1 The hearing of submissions on Plan Change A1 was held on 15<sup>th</sup> July at the offices of Nelson City Council. All submitters had indicated that they did not wish to be heard. The hearing therefore provided an opportunity for any questions by the Commissioner relating to the Section 42A report.
- 3.2 Council officers in attendance were:
- Mr David Jackson (Planning Advisor, City Development)  
Mr Matt Heale (Principal Advisor, Resource Management Planning)
- 3.3 A written submission was received from S J Eveleigh, Council for Solid Energy New Zealand Limited in support of its original and further submissions. The Energy Efficiency and Conservation Authority (EECA) also advised the Council that having read the Officer's Report it supported the report and recommendations. It submitted a written statement of evidence from Ms Tania Hood, Advisor, Energy Sector Partnerships in support of its original submission. This written material was tabled at the hearing.

### **4. DECISIONS SUMMARY**

As the person with delegated authority to hear and determine submissions on Proposed Plan Change A1 to the Nelson Air Quality Plan, I have given careful consideration to the generalities and details of the Proposed Plan Change, the advice from Council officers, the nature and content of the written submissions and further submissions, the additional written evidence and submissions of submitters tabled at the hearing, and have determined pursuant to clauses 10(1) and (2) and Clause 16(2) of the First Schedule of the RMA:

1. that Proposed Plan Change A1 should be approved subject to the amendments set out in this Report and compiled in Appendix 1 of this Report;
2. to adopt the Section 32 Report included in the Planning Officers Report, subject to any modifications set out in section 6 of this Report;
3. to accept in whole or in part, or to reject the submissions as set out in the Decisions Summary Table below; and
4. that these decisions be publicly notified and advice served on submitters pursuant to clauses 10(4)(b) and 11(1) and (3) of the First Schedule to the RMA.

#### **Decisions Summary Table – Proposed Plan Change A1**

The table on the following page summarises the matters that were raised in submissions and the decisions sought, and the further submissions. It states the decision made in respect of each submission. Further discussion and reasons are set out in the next section of this report.

Topic	Submitter Name	Submitter Number	Statement Number	Decision Sought	Decision
<b>A2-91 Wood Pellet Fuel - definition</b>	Energy Efficiency & Conservation Authority	2	1	Retain definition of wood pellet fuel.	Accept
	Living Energy Ltd	6	1	Wherever the plan refers to wood pellet appliances, it should be amended to say "wood pellet and wood chip".	Reject
	<i>Solid Energy New Zealand Ltd (SENZ)</i>	<i>Further submission X1</i>	1	<i>Opposes introduction of "wood chip", as wood pellets and wood chips are different types of fuel, and wood chips have different combustion characteristics.</i>	Accept
<b>AQr.30A Large-scale fuel burning appliance – Wood Pellets (general)</b>	Energy Efficiency & Conservation Authority	2	2	Retain rule AQr.30A.	Accept
	Solid Energy New Zealand Ltd (SENZ)	7	1	Retain rule as notified.	Accept
	Living Energy Ltd	6	2	A) Wherever the plan refers to wood pellet appliances, it should be amended to say "wood pellet and wood chip". B) Wherever the plan refers to wood pellet quality/standards, it should be amended to say "wood pellet and wood chip".	Reject
	<i>Solid Energy New Zealand Ltd (SENZ)</i>	<i>Further submission X1</i>	2	<i>Opposes introduction of "wood chip", as wood pellets and wood chips are different types of fuel, and wood chips have different combustion characteristics.</i>	Accept

Topic	Submitter Name	Submitter Number	Statement Number	Decision Sought	Decision
<b>AQr.30A.1 Wood pellets – permitted rule</b>	Living Energy Ltd	6	3	A) Reference to a maximum size of 220kW should be amended to say 3500kW (3.5MW). B) In order to ensure only quality wood chip appliances are “Permitted” the qualifying criteria for Permitted Activities in section AQr.30A.1 should have an additional criteria added stating that “i) At least 5 independent tests can be supplied showing Total Suspended Particulate emissions of less than 100mg/Nm <sup>3</sup> ”.	Reject
	<i>Solid Energy New Zealand Ltd (SENZ)</i>	<i>Further submission X1</i>	3	<i>Oppose A) as emissions would exceed that of equivalent diesel-burning equipment. Oppose B) as the requested requirement for tests is excessive and would create additional unnecessary expense.</i>	Accept
<b>Plan Change A1.4 AQr.25.1 – Replacement of ‘Jetmaster-type’ domestic fireplaces</b>	Jim Sinner	4	1	In rule AQr.25.1 (permitted) amend clause a) as follows: a) as currently proposed, insert the words “or ‘Jetmaster’-type insert fireplace” immediately after the words “the solid fuel burner replaces a solid fuel burning appliance”; b) insert a comma after “or was otherwise authorised under Rule AQr.24, and”; and c) delete the closed “bracket “)” where it appears in “Rule AQr.24.1cc”.	Accept in part
	<i>Diane Penman</i>	<i>Further submission X2</i>	1	<i>Supports as Jetmaster are very efficient.</i>	Accept in part

Topic	Submitter Name	Submitter Number	Statement Number	Decision Sought	Decision
<b>Plan Change A1.6</b> <b>AQ4.3</b> <b>Appendix AQ4 – Stack Requirements</b>	Central Heating New Zealand Ltd	1	1	Change the plan as proposed.	Accept in part
	Nicky and Alan Mitchell	3	1	Retain the proposed wording.	Accept in part
	Colin Stewart Campbell (Avon Electric)	5	1	I recommend the word “Diesel” is replaced with “Liquid Fuelled”.  Retain proposed wording in A1.6 – provision for different stack configurations.	Accept in part

### Consolidated Amendments to Plan Change A1

Appendix 1 shows the text of Plan Change A1 as notified, with further changes as a result of the decisions set out in this report shown as tracked changes in colour.

## 5. DECISIONS AND REASONS FOR DECISION

The decisions in this section are grouped and follow the order and numbering set out in the Officer’s Report, and in the Decisions Summary Table set out above. A brief discussion and reason is provided in relation to each.

### 5.1 Decisions on Plan Change A1.1 – Industrial Combustion of Wood Pellet Fuel

Topic	Submitter Name	Submitter Number	Statement Number	Decision Sought	Decision
<b>A2-91 Wood Pellet Fuel - definition</b>	Energy Efficiency & Conservation Authority	2	1	Retain definition of wood pellet fuel.	Accept
	Living Energy Ltd	6	1	Wherever the plan refers to wood pellet appliances, it should be amended to say “wood pellet and wood chip”.	Reject
	<i>Solid Energy New Zealand Ltd (SENZ)</i>	<i>Further submission X1</i>	<i>1</i>	<i>Opposes introduction of “wood chip”, as wood pellets and wood chips are different types of fuel, and wood chips have different combustion characteristics.</i>	Accept

Topic	Submitter Name	Submitter Number	Statement Number	Decision Sought	Decision
<b>AQr.30A Large-scale fuel burning appliance – Wood Pellets (general)</b>	Energy Efficiency & Conservation Authority	2	2	Retain rule AQr.30A.	Accept
	Solid Energy New Zealand Ltd (SENZ)	7	1	Retain rule as notified.	Accept
	Living Energy Ltd	6	2	A) Wherever the plan refers to wood pellet appliances, it should be amended to say “wood pellet and wood chip”.  B) Wherever the plan refers to wood pellet quality/standards, it should be amended to say “wood pellet and wood chip”.	Reject
	<i>Solid Energy New Zealand Ltd (SENZ)</i>	<i>Further submission X1</i>	2	<i>Opposes introduction of “wood chip”, as wood pellets and wood chips are different types of fuel, and wood chips have different combustion characteristics.</i>	Accept
<b>AQr.30A.1 Wood pellets – permitted rule</b>	Living Energy Ltd	6	3	A) Reference to a maximum size of 220kW should be amended to say 3500kW (3.5MW).  B) In order to ensure only quality wood chip appliances are “Permitted” the qualifying criteria for Permitted Activities in section AQr.30A.1 should have an additional criteria added stating that “i) At least 5 independent tests can be supplied showing Total Suspended Particulate emissions of less than 100mg/Nm <sup>3</sup> ”.	Reject



Topic	Submitter Name	Submitter Number	Statement Number	Decision Sought	Decision
	<i>Solid Energy New Zealand Ltd (SENZ)</i>	<i>Further submission X1</i>	3	<i>Oppose A) as emissions would exceed that of equivalent diesel-burning equipment. Oppose B) as the requested requirement for tests is excessive and would create additional unnecessary expense.</i>	Accept

The Plan Change and associated submissions and further submissions relate to proposed new rule AQR.30A, which sets in place specific provision for burning wood pellets in larger fuel-burning appliances. The new rule sets in place a permitted activity provision (subject to specified conditions), a controlled use provision (subject to specified conditions and matters over which control is retained), and a rule setting out the status of pellet-burning activities in large-scale fuel burning appliances that do not meet the specified conditions for permitted or controlled activities. Assessment criteria for discretionary activities are provided, and prohibited activities are specified. The Plan Change also includes a statement clarifying the requirement for compliance with other rules, and provides an explanation for the new rule.

Submitter 2, EECA, sought to retain the provisions unchanged. In written evidence, EECA set out the basis for its support, including that the new rule gives effect to RMA Section 7 (j) and that the use of wood energy is aligned with the NZ Energy Efficiency and Conservation Strategy (2007). Submitter 7, Solid Energy NZ Ltd, sought to retain the rule as notified, and its tabled submission set out the environmental and economic benefits of wood pellet fuels and large-scale fuel burning devices.

Submitter 6, Living Energy Ltd, in submissions 6.1 and 6.2, while giving partial support to Plan Change A1 sought to extend the use of the term “wood pellet fuel” to “wood pellet and wood chip fuel” throughout the rule. The submitter submitted that wood chip boilers are very efficient and can “perform an equally valuable but less costly, therefore more accessible, role in improving air quality”. The submitter estimated that wood chip fuels are approximately half the cost of wood pellet fuel and are more available. Their use can thus benefit industry greatly. The submission attached a sheet compiling independent test results from such boilers, demonstrating that they meet satisfactory and equivalent standards. Further submissions were received from Solid Energy NZ Ltd (submission X1.1 and X1.2) opposing this request on the grounds that the two fuels are different and should be treated differently in the Plan; that wood chip has much higher moisture content, and lacks consistency, and that the emissions differ in the air shed between the two fuel types.

Submitter 6 also sought a change to a condition in the permitted activity rule (submission 6.3) seeking a change to the provision under AQR.30A.1 which limits the combined heat output per site from wood pellet burning appliances to 220kW for permitted activities. The submitter sought to amend the reference to read 3500kW (3.5MW). This was opposed in further submission X1.3 on the basis that the current proposed heat output limit of 220kW for a permitted activity is approximately equivalent to that of a permitted diesel boiler, and a 3.5MW limit would result in considerably higher emissions.

Submitter 6 also requested an additional criterion to be applied to the permitted activity conditions – that “at least 5 independent tests can be applied showing Total Suspended Particulate (TSP) emissions of less than 100mg/Nm<sup>3</sup>”. This was also opposed in further submission X1.3 on the basis that tests would be excessive and would add to compliance costs.

Solid Energy NZ Ltd provided additional comment in its written submissions emphasising that wood pellet fuels are manufactured in accordance with an AS/NZ standard, which results in uniform product in terms of moisture and ash. The standard also applies to the fuel burning equipment itself, and is referenced (along with another standard) in the permitted activity conditions. In contrast, wood chips come from many sources and do not need to meet standards that will ensure low emissions. A similar comment is made in respect of the submission seeking to increase the size of equipment able to be used per site – the further submitter considers that this would unreasonably increase the emissions per site from pellet fuels. The further submitter considers both these submissions to be inconsistent with the NES and the objectives of the Nelson Air Quality Plan which seek to improve ambient air quality and reduce emission of particulates (PM10).

The further submitter also submits that other conditions in the permitted rule overcome the need for test demonstration of TSP levels. To require test demonstrations would unnecessarily and unreasonably increase compliance costs in the use of wood pellet fuel.

The Officer's Report discusses these points at length, including commentary from an additional expert report commissioned in response to the submissions (from Mr Bluett, Senior Air Scientist at NIWA).

In summary, the main points relevant to this group of submissions are:

- While the use of chip fuels at industrial scale may in some circumstances and in some appliances be appropriate, there is no basis to add chip fuels into a rule that has been specifically researched and developed to apply to wood pellet fuels.
- The further submitter is correct in stating that chip fuel is of variable quality and consistency, and there are risks in assuming that particulate emissions from wood chip burning would be equivalent to those of wood pellet fuels. The submitter provided no definition of wood chip and there is a wide range of parameters in wood chip as described in the "Wood Fuel Classification Guidelines" (Bioenergy Association of NZ).
- The rules as proposed for pellet fuels incorporate a very precise definition of wood pellets, and other limitations that ensure that the activities permitted are in accordance with the objective of the Plan and the NES.
- If rules were to be added for wood chips, considerable additional investigation would be needed. There is little information about emissions from wood chip burning in industrial appliances available in New Zealand (including from EECA). The information attached to the Living Earth submission is not adequate to justify any change in the current provisions.
- The establishment of the 220kW heat limit permitted activity threshold was the result of careful research and analysis which classified emission sizes/sources/types into permitted, controlled and discretionary rules. This recognised Nelson's less-than-satisfactory air quality circumstances, and any departure from the provisions would need considerable justification. An increase in this rule to 3.5MW heat output would involve approximately a 16-fold increase in fuel use with a concomitant increase in emissions.

I accept those points. Wood pellet fuel and its use in controlled systems has been well-researched in New Zealand and the inclusion of a specific rule in the Plan at a scale that results in emissions that are approximately the equivalent to those of permitted activity emissions from alternative fuels is appropriate.

The permitted rule applies to new systems and has clear and relatively tight requirements, referring to specific standards in terms of fuel, stack requirements and site heat outputs.

In commenting on the submission requesting a further permitted activity condition that "at least 5 independent tests can be supplied showing TSP emissions of less than 100mg/Nm<sup>3</sup>", the Officer's

Report highlights commentary in the NIWA report that identifies potential environmental management benefits from such a condition, but also notes potential administration and cost implications. On balance, Mr Bluett's recommendation is to not accept the submission, a recommendation affirmed by Mr Jackson in the Officer's Report.

However, Mr Bluett's report includes a caveat that if the decision-making Commissioner considers that more environmental certainty is required, such a provision could be added, but only after a cost-benefit analysis to decide on how best to do so. Mr Jackson disagrees with this suggestion, as the appliances permitted are relatively small and stack testing is costly. Mr Jackson considers that there is a significant risk that an additional criterion of this nature could become a disincentive and create a barrier to installation of pellet-burning appliances.

I accept Mr Jackson's professional opinion. In addition to the points he makes, I consider there would be difficulties in accepting the original submission, which was made in tandem with, and as part of, a wider submission seeking to introduce a wider range of fuel (wood chips). Had I accepted the wider submission, noting that no standards apply to wood chip fuels, an additional emission performance standard would have been appropriate. As I have rejected the wider submission, it would be unrealistic to accept a new condition which is not necessary in relation to wood pellet fuels. Further, the type of detailed analysis that Mr Bluett says would be needed in order to accept the submission would take time and delay completion of the processing of this Plan Change. In the meantime, applications are still needed for wood pellet burning installations; a cost issue in itself.

Thus the submissions and further submissions seeking retention of the provisions in Plan Change A1 are accepted, and the submissions seeking alterations and additions are rejected.

### **Reasons for Decisions**

The reasons for accepting or rejecting the further submissions set out in the Table above are as follows:

- Inclusion of new rule AQr.30A.1, the definition and associated explanation in Plan Change A1.1 provides for the sustainable management of natural and physical resources by clarifying the circumstances in which burning of wood pellets are permitted and controlled in the Nelson City area. This enables people to introduce appropriate new devices, or convert existing devices, to make use of this fuel with reduced compliance cost and appropriate environmental outcomes.
- Inclusion of the provisions are in accordance with Section 7(j) of the RMA – the benefits to be derived from the use and development of renewable energy.
- The provisions have been developed following considerable investigation of wood pellet fuels and their performance, and the development of suitable associated controls, as set out in the Section 32 analysis.
- The provisions are in line with, and will assist in achieving, the relevant NES, the relevant objective and policy in the Nelson Regional Policy Statement, and the sole objective and relevant policy in the Nelson Air Quality Management Plan, all as set out in the Officer's Report. It is also consistent with the aims relating to air quality in the one relevant lwi management plan.

The discussion above provides additional detailed considerations taken into account in reading the decisions.

### **Modification to Proposed Plan Change A1.1**

Nil

## 5.2 Decisions on Plan Change A1.4 – Replacement of “Jetmaster-type” domestic fireplaces

Topic	Submitter Name	Submitter Number	Statement Number	Decision Sought	Decision
Plan Change A1.4 AQR.25.1 – Replacement of ‘Jetmaster-type’ domestic fireplaces	Jim Sinner	4	1	In rule AQR.25.1 (permitted) amend clause a) as follows: a) as currently proposed, insert the words “or ‘Jetmaster’-type insert fireplace” immediately after the words “the solid fuel burner replaces a solid fuel burning appliance”; b) insert a comma after “or was otherwise authorised under Rule AQR.24, and”; and c) delete the closed “bracket “)” where it appears in “Rule AQR.24.1cc”.	Accept in part
	<i>Diane Penman</i>	<i>Further submission X2</i>	<i>1</i>	<i>Supports as Jetmaster are very efficient.</i>	Accept in part

### Discussion

This part of Plan Change A1 seeks to correct a minor error in the current rule AQR.25.1 that has limited the ability to replace an existing Jetmaster-type fire with a more efficient type of appliance as a permitted activity since 2008. This has limited the uptake of more efficient appliances since 2008 in the small number of circumstances where Jetmaster-type fires remain. All such fires must however be discontinued from 2013, so the current wording of the rule is counter-productive in terms of the Plan’s intention of encouraging orderly transition to more efficient systems.

Submitter 4 supports the change in principle, but seeks small grammatical changes to improve its interpretation. Further submitter X2 supports submission 4, but seeks to extend the ability to install new Jetmaster-type fires indefinitely.

The Officer’s Report explains the background to the changes and recommends adoption of part of submission 4.1 in the interests of clarifying the more complex rule that has resulted from the Plan Change amendment. The part of the submission that seeks deletion of a “spare” closed bracket is recommended to be declined. The closed bracket is part of a reference to another rule, and its removal would potentially add confusion, which the submitter is generally seeking to avoid. The recommendation is to accept the further submission but only to the extent that it supports the grammatical clarification, as parts of the submission endeavour to extend both the original submission, and the intent of the original Plan Change, substantially.

### Reason for Decisions

The submission and further submission are accepted in part, as one of the small changes sought provides further clarity to the rule.

### Modification to Proposed Plan Change A1.4

Add a comma in rule AQR.25.1.a) immediately following the words “rule AQR.24, and”.

### 5.3 Decisions on Plan Change A1.6 – Appendix AQ4 – Stack requirements

Topic	Submitter Name	Submitter Number	Statement Number	Decision Sought	Decision
Plan Change A1.6 AQ4.3 Appendix AQ4 – Stack Requirements	Central Heating New Zealand Ltd	1	1	Change the plan as proposed.	Accept in part
	Nicky and Alan Mitchell	3	1	Retain the proposed wording.	Accept in part
	Colin Stewart Campbell (Avon Electric)	5	1	I recommend the word “Diesel” is replaced with “Liquid Fuelled”.  Retain proposed wording in A1.6 – provision for different stack configurations.	Accept in part

### Discussion

Plan Change A1.6 introduces a new provision to Appendix AQ4.3 of the Air Quality Plan, in that it provides alternative means of meeting the Appendix (stack) requirements for domestic diesel appliances. The change is needed because of technological improvements in diesel appliances and their flue systems, which now means that discharging above a roofline is often not necessary. The current requirement means that people seeking to install certain modern diesel heating and similar systems require a resource consent.

All three submissions are in general support of the Plan Change. Submitter 1 provided some detail on the modern technology which this Plan Change would facilitate, and pointed out that the change will encourage the uptake of clean burning technology by reducing the cost of installation, both in terms of not needing to obtain a resource consent and in terms of reduced flue lengths. Submitter 3 provided information on the practical beneficial effect of the rules, including no loss of living space which would otherwise be occupied by flues, and cost savings similar to those identified by submitter 1. As well, this submitter set out the cost-savings in using diesel heating systems, particularly in respect of the South Island.

Submitter 5 (from Christchurch-based supplier of such systems, Avon Electric) provided technical comment on the Proposed Plan Change, including an explanation as to how relevant New Zealand Standards provisions have not kept pace with manufacturers requirements, which meet international standards. The submitter endorses the proposed change, but seeks to extend it to refer to “liquid fuel appliances” rather than just “diesel appliances” in recognition that there is ongoing diversification in

the use of these types of fuels, including use of bio-fuels, and mixtures of diesel with kerosene. The submission points out that manufacturers' requirements specify the types of liquid fuels that an individual heater can burn.

The Officer's Report recommends that this latter submission is accepted in part, the limitation being that the scope of the liquid-fuelled appliances is limited by a cross-reference to rule AQR.23, which does not include appliances burning light and heavy oil. This overcomes a concern relating to the lack of definition in the Plan of the term "liquid fuel". At the hearing, Mr Jackson advised that the recommendation followed discussions with Brent Higgins of the Council's Environmental Inspections team, who has no concerns with the suggested modification to the notified provision. I accept this relatively elegant solution to achieving the submitter's suggestion, and adopt the revised wording proposed in the Officer's Report as part of the decision. As this wording is not exactly as proposed in the submission, submission 5 is accepted in part.

This modification means that the submissions in full support of Plan Change A1.6 as notified (submissions 1 and 3) are only partly achieved, thus they are also both accepted in part.

I also acknowledge and accept the paragraph in the Officer's Report that addressed potential adverse effects from the alternative discharge solutions provided for in Plan Change A1.6. The report refers to rule provisions in AQR.22 and the noise provisions in the Nelson Resource Management Plan as means of managing and mitigating any associated effects.

### **Reason for Decisions**

The partial acceptance of submissions 1.1, 3.1 and 5.1 provides more flexibility for people to provide for their social, economic and cultural wellbeing and their health and safety (section 5, Resource Management Act) over the provisions promoted in the Plan Change as notified.

The decision is consistent with the National Environmental Standard for air quality, the objective of the operative Air Quality Plan, and Policies A5-1.3 and A5-1.4. The modified wording in the decision will facilitate the use of fuels that produce lower PM<sub>10</sub> emissions, since an alternative for many homeowners faced otherwise with the cost of obtaining resource consent would be to install a more polluting woodburner. The decision also provides for a degree of future-proofing, given the ongoing changes in technology and fuel types.

### **Modification to Proposed Plan Change A1.6**

Replace the word "diesel" with the words "liquid-fuelled appliances under rule AQR.23,".

## **6. SECTION 32 FURTHER EVALUATION**

I have reviewed the section 32 evaluation carried out by the Council, dated 25<sup>th</sup> September 2010. I confirm that I agree with the analysis as undertaken. The small changes to the relevant wording resulting from submissions on Plan Change A1.4 and A1.6 will further reduce future costs, through clarity (A1.4) and through increasing the application of the rules to similar situations as covered by the rules, but where otherwise resource consents would still be required (A1.6). These changes thus enhance the benefits of those parts of Plan Change A1 with no additional cost.

Signed:   
Hearings Commissioner

Date: 20<sup>th</sup> September 2011

**APPENDIX 1 – CONSOLIDATED AMENDMENTS TO PLAN CHANGE A1**



## PLAN CHANGE A1

### Proposed Amendments to the Nelson Air Quality Plan (Statutory Provisions)

Note that Plan Changes A1.2, A1.3 and A1.5 were not the subject of submissions and do not require decisions. They remain as notified and are not included in this Appendix.

#### ***Plan Change A1.1 – Industrial combustion of wood pellet fuel***

**A1.1 a)** *Add new definition A2-91 to Chapter A2 Meaning of Words, as follows:*

<b><u>Wood pellet fuel</u></b>	<u>means pellets made from wood shavings or sawdust bonded together by the wood's natural resins through the process of pelletisation.</u>
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**A1.1 b)** Add a new rule AQR.30A to Chapter A6, as follows:

<u>Item</u>	<u>Permitted</u>	<u>Controlled</u>	<u>Discretionary/Non-complying/ Prohibited</u>
<p><b><u>AQR.30A</u></b>  <b><u>Large-scale fuel burning appliance</u></b></p> <p><u>Wood pellets</u></p>	<p><u>AQR.30A.1</u>  The discharge of any contaminant into air from the combustion of wood pellets in a large-scale fuel burning appliance is permitted if:</p> <p>a) <u>the large scale fuel burning appliance is purpose designed and manufactured<sup>1</sup> to burn wood pellets, and</u></p> <p>b) <u>the combined heat output from all such purpose designed and manufactured appliances on the site burning wood pellets does not exceed 220kW, and</u></p> <p>c) <u>the discharge is not replacing an existing discharge on the site from a large-scale fuel burning appliance burning wood or coal, and</u></p> <p>d) <u>the wood pellet fuel burnt in the appliance meets the quality assurance specifications defined in either AS/NZS 4014.6:2007, or Category A in the Bioenergy Association Wood Fuel Classification Guidelines Version 5, 28 July 2010, and</u></p> <p>e) <u>no fuels in Rule AQR.20 (Prohibited Fuels) are burnt, and</u></p> <p>f) <u>the stack complies with the requirements in Appendix AQ5, and</u></p> <p>g) <u>except for a period not exceeding two minutes in each hour of operation, the opacity of the discharge at the chimney exit is not darker than Ringelmann Shade No. 1, as described in New Zealand Standard 5201:1973.</u></p> <p>(Note: Compliance with Rule AQR.22 (General Conditions) is also required)</p>	<p><u>AQR.30A.2</u>  The discharge of any contaminant into air from the combustion of wood pellets in a large-scale fuel burning appliance is a controlled activity if:</p> <p>a) <u>the discharge is from a wood pellet-burning appliance that replaces a large-scale fuel burning appliance on the site of at least equivalent heat output that at the time of replacement was burning wood or coal, and where the discharge to air was lawfully approved, and</u></p> <p>b) <u>the large-scale fuel burning appliance being replaced under a) ceases to burn wood or coal, and</u></p> <p>c) <u>the replacement large-scale fuel burning appliance is designed and manufactured to burn wood pellet fuel, or is an existing or replacement appliance converted to burn wood pellet fuel, and</u></p> <p>d) <u>the wood pellet fuel burnt in the appliance meets the quality assurance specifications defined in either AS/NZS 4014.6:2007, or Category A in the Bioenergy Association Wood Fuel Classification Guidelines Version 5, 28 July 2010, and</u></p> <p>e) <u>no fuels in Rule AQR.20 (Prohibited Fuels) are burnt.</u></p> <p>Control reserved over:</p> <p>i) <u>stack height and design, and</u></p> <p>ii) <u>direction of exhaust gases, and</u></p> <p>iii) <u>maintenance, and</u></p> <p>iv) <u>stack testing and reporting, and</u></p> <p>v) <u>distance from sensitive receptors, and</u></p> <p>vi) <u>the daily maximum mass emissions during winter (May to August inclusive).</u></p>	<p><u>AQR.30A.3</u>  Any discharge that contravenes permitted clause a), b), d), or f) or a controlled clause is a discretionary activity, except in the case of clause AQR.30A.1 (e) or AQR.30A.2 (e) where the activity is prohibited (see Rule AQR.20).</p> <p>Non-compliance with permitted clause g) is an enforcement matter.</p> <p>(Non-compliance with permitted clause c) is a controlled or a discretionary activity, depending on whether other controlled standards are complied with)</p>

<sup>1</sup> Designed and manufactured means an appliance designed and factory-built to burn wood pellet fuel, rather than a burner that has been modified from burning another fuel to burning wood pellets.

**A1.1 c)** Add new Assessment Criteria AQR.30A.4 and Explanation AQR.30A.5 to Chapter A6, as follows:

<u>Assessment Criteria</u>	<u>Explanation</u>
<p><u>AQR.30A.4</u></p> <p>a) <u>the ambient levels of PM<sub>10</sub> and the predicted effect that the activity will have on these levels.</u></p> <p>b) <u>the predicted results of the likely ground level concentration of contaminants from atmospheric dispersion modelling.</u></p> <p>c) <u>the extent to which adverse effects on sensitive receptors are avoided, remedied or mitigated.</u></p> <p>d) <u>the proximity and nature of nearby activities, and the likely future uses given the zoning of the land.</u></p> <p>e) <u>the proximity and nature of any sensitive receptors.</u></p> <p>f) <u>the likely degree of contaminants discharged to the air if alternative fuel was used and the potential effects on the environment.</u></p> <p>g) <u>new options, processes or techniques available to minimise any discharges or their effects.</u></p> <p>h) <u>the total amount of the discharge and the time period over which the discharge occurs.</u></p> <p>i) <u>the topography, including whether the discharge will be located at the head or bottom of valleys and airsheds and the meteorology of the area including wind speed and wind direction.</u></p> <p>j) <u>the potential effect of the discharge on aircraft flight paths where the combined discharge from all fuel burning on the site is greater than 5MW.</u></p> <p>k) <u>how significant the discharge is in terms of the total industrial contribution to the airshed.</u></p> <p>l) <u>in the case of renewal of consent, the age of the existing plant (old plant will likely be beyond its design life).</u></p> <p>m) <u>in the case of renewal of consent, how practicable reductions in emissions are, and the economic costs of making them (and not making them).</u></p> <p>n) <u>if the burning of wood pellets is replacing an existing fuel, the expected change in peak and mass emissions, and the environmental effects of this.</u></p>	<p><u>AQR.30A.5</u></p> <p><u>PM<sub>10</sub> emissions from purpose-built pellet-fired boilers can be approximately one third the emissions of wood or coal boilers of equivalent size, and boilers converted from wood or coal to burn pellets can have emissions about one half the levels typical for wood and coal. (NIWA report CHC2010-061 'Proposed classification of Wood Pellet Fuelled Boilers').</u></p> <p><u>Modelling by NIWA indicates that new purpose-built pellet boilers could be allowed as permitted activities, if they are small – less than 220kW (the equivalent of 20 domestic pellet burners. Ultra low emission domestic pellet burners are permitted in new houses or ones without a current fire).</u></p> <p><u>Since new or retrofitted pellet boilers will substantially improve the emissions from any industrial combustion involving wood or coal, the replacement or conversion of an existing large-scale wood-burning or coal burning appliance to instead run on wood pellets has been made a controlled activity (such consent applications cannot be declined, but conditions can be imposed). This is to help facilitate a transition to lower emitting appliances and improve ambient air quality.</u></p> <p><u>Where the discharge is new and from a purpose designed and manufactured pellet boiler of more than 220kW in capacity then a discretionary resource consent is needed. A discretionary resource consent is needed where a retrofit boiler is not replacing an existing wood or coal-fired discharge, and also where grades of wood pellet fuel, other than those specified in the rule, are proposed to be used. This is partly to address any potential local adverse effects, but also to assess the capacity of the airshed to accommodate the discharge of particulate matter in terms of the objectives and policies set out in this Plan.</u></p> <p><b><u>Note: Compliance with Rule AQR.22 General Conditions is also required which relates to smoke, dust, odour and other effects. In terms of compliance and enforcement of this rule, Council staff will be guided as appropriate by Appendices AQR. 10 and 11.</u></b></p>

**Plan Change A1.4 – Replacement of 'Jetmaster'-type domestic fireplaces**

**A1.4** In rule AQR.25.1 (permitted) amend clause a) as follows:

a) the solid fuel burning appliance replaces a solid fuel burning appliance or 'Jetmaster'-type insert fireplace in the building and on the site that was lawfully approved before the date of notification of this Plan, or was otherwise authorised under Rule AQR.24, and, where a cessation date is specified in Rule AQR.24.1cc), the building consent for replacement is lodged with the Council prior to that date, or”.

**Plan Change A1.6 – Domestic Diesel Burners – provision of different stack configurations**

**A1.6** In Appendix AQ4 add a new clause, as follows:

**AQ4.3** For dieselliquid-fuelled appliances under rule AQR.23, compliance with the manufacturer's installation instructions and stipulated clearances will be deemed to be compliance with the stack requirements of AQR.23.1.