

28 September 2018

PO Box 645 Nelson 7040  
Phone: 03 546 0200  
Fax: 03 546 0239

South Pine (Nelson) Limited  
C/- Tony Wilkinson  
South Pine  
PO Box 554  
Nelson 7040

Resource Consent Number: 085308V5  
Contact: Mark Buckley  
DD:03 265 6227  
Email: [mark.buckley@ncc.govt.nz](mailto:mark.buckley@ncc.govt.nz)  
[www.nelson.govt.nz](http://www.nelson.govt.nz)

Dear Mr Wilkinson

### **RM085308V5 DECISION ON NON-NOTIFIED RESOURCE CONSENT**

Pursuant to Section 114 of the Resource Management Act 1991 ("the Act"), please find enclosed a copy of the Council's decision on your application for resource consent referred to above.

Section 120 of the Act provides you with the right to lodge an appeal with the Environment Court in respect of this decision and/or any associated conditions. Section 121 of the Act requires that any such appeal must be made in the prescribed form, must state the reasons for the appeals, the relief sought, state any matters required by regulations and must be lodged with both the environment Court and the Council within 15 working days of receiving this letter.

You may commence your activity immediately unless you lodge an appeal to this decision. However, it is important that you check the conditions of your consent carefully as some of them may require you to provide information and/or plans to the Council before you may commence your activity. In addition, in some cases you may also require other permits or building consents for your activity and these must be obtained before you can commence your activity.

Invoicing: Once the final processing costs are determined an invoice will be sent out or you will be contacted if there is a refund of any fees.

Please feel free to contact me if you have any questions regarding any aspect of your consent or its conditions. My contact details are listed at the top of this letter.

Yours faithfully

Mark Buckley  
**Principal Planner**

## DECISION ON APPLICATION TO CHANGE CONSENT CONDITIONS

### Resource Consent number: RM085308V5

Pursuant to Sections 104B and 127 of the Resource Management Act 1991 ("the Act"), the Nelson City Council ("the Council") hereby **grants** the application to change conditions of resource consent to the Consent Holder being:

South Pine (Nelson) Limited

### The activity to which this decision relates:

Change of condition 4 of Resource Consent RM085308 (as varied by RM085308V1, RM085308V2, RM085308V3 and RM085308V4) to defer meeting Phase 2 (PM<sub>10</sub> and SO<sub>2</sub> emission reduction requirements) for a further four months from 30 September 2018 to 31 January 2019.

### Location details:

Address of property: 67 Quarantine Road, Nelson

Legal description: Lot 10 DP 13460

Certificate of title: 8B/439 8B/440

Location co-ordinates: 2529949E, 5989914N (NZ Transverse Mercator)

## CONDITIONS

The application to change condition 4 (i) of RM085308 (as varied by RM085308V1, RM085308V2, RM085308V3 and RM085308V4) is granted as follows:

### Condition 4 is changed from:

#### 4. Phase 2 Emission Reductions

The Vekos Boiler shall be either retained or replaced with a combustion plant having a gross heat output not exceeding 8.3 MW. Prior to the design being finalised relevant technical information shall be provided to the Consent Authority, together with a report from an air quality consultant showing:

- (i) That the proposed PM<sub>10</sub> and SO<sub>2</sub> emission reductions will be achieved by 30 September 2018;
- (ii) That the design of the particulate matter collection equipment to be installed is such as to achieve the guaranteed performance provided in the original application, AEE and Section 92 response; and
- (iii) That the adverse effects of contaminants discharged from the combustion plant stacks and the Timber Drying Kilns will be no greater than those indicated by modelling provided in the original application, AEE and Section 92 response.
- (iv) The Consent Holder shall at all times during the duration of the consent, retain a copy of the Application, AEE and Section 92 response in either hard copy or CD form.

**Advice Note:**

The design of the upgraded particulate collection equipment is required to achieve a guaranteed emission concentration for TSP not exceeding 100 milligrams per cubic metre, adjusted to 0 degrees Celsius, 8.5% oxygen and 101.3 kilopascals, on a dry gas basis. The air quality consultant will need to confirm that appropriate safety factors have been used to accommodate the required long term operating performance.

**To:**

**4. Phase 2 Emission Reductions**

The Vekos Boiler shall be either retained or replaced with a combustion plant having a gross heat output not exceeding 8.3 MW. Prior to the design being finalised relevant technical information shall be provided to the Consent Authority, together with a report from an air quality consultant showing:

- (i) that the proposed PM<sub>10</sub> and SO<sub>2</sub> emission reductions will be achieved by ~~30 September 2018~~ 31 January 2019;
- (ii) that the design of the particulate matter collection equipment to be installed is such as to achieve the guaranteed performance provided in the original application, AEE and Section 92 response; and
- (iii) that the adverse effects of contaminants discharged from the combustion plant stacks and the Timber Drying Kilns will be no greater than those indicated by modelling provided in the original application, AEE and Section 92 response.
- (iv) The Consent Holder shall at all times during the duration of the consent, retain a copy of the Application, AEE and Section 92 response in either hard copy or CD form.

**Advice Note:**

The design of the upgraded particulate collection equipment is required to achieve a guaranteed emission concentration for TSP not exceeding 100 milligrams per cubic metre, adjusted to 0 degrees Celsius, 8.5% oxygen and 101.3 kilopascals, on a dry gas basis. The air quality consultant will need to confirm that appropriate safety factors have been used to accommodate the required long term operating performance.

*A full updated copy of the resource consent conditions are attached to this decision as **APPENDIX A***

**ADVICE NOTES**

1. This is not a building consent, and the Consent Holder shall meet the requirements of Council with regard to all Building and Health Bylaws, Regulations and Acts.
2. This resource consent authorises only the activity described above. Any matters or activities not referred to in this consent or covered by the conditions above must either:
  - (a) comply with all the criteria of a relevant permitted activity in the Nelson Resource Management Plan (NRMP); or

- (b) be allowed by the Resource Management Act 1991; or
- (c) be authorised by a separate resource consent.
3. **Monitoring:** A monitoring charge of \$150 has been included in your invoice, as conditions of consent requiring monitoring have been imposed. This charge covers the costs involved in the first hour of monitoring compliance with the consent conditions. Where additional monitoring costs are required to determine that conditions have been met, these will be charged as per the Council's Fees and Charges policy in force at the time. Please email the Council's Monitoring Officer, [regulatory@ncc.govt.nz](mailto:regulatory@ncc.govt.nz) , when work commences on this consent, so that monitoring can be carried out. Please quote the consent number, RM085308V5.
4. The consent holder is advised that the council is proposing to apply environmental monitoring charges to resource consent holders to recover annual environmental monitoring and science costs. For further information please contact Council's Environmental Programmes Adviser [richard.frizzell@ncc.govt.nz](mailto:richard.frizzell@ncc.govt.nz) .

## **BACKGROUND AND PROPOSAL**

South Pine currently kiln dries up to 75,000m<sup>3</sup> per annum of timber, the heat for which is generated in a thermal energy (combustion) plant. The combustion plant includes one 6 MW gross Scots Combustor and one 4.5 MW gross Vekos Boiler, both of which discharge contaminants into air from their respective stacks.

South Pine has an existing discharge permit to discharge contaminants to air from the combustion plants, for which a discharge permit was originally granted in 2009. This consent has subsequently been varied in 2012, 2015, 2016 and 2018. The consent provides for a two stage reduction in emissions from the combustion plant, and notably provides at the end of Phase 2 emissions reductions for an increase in the installed capacity of the thermal plants (from 8.3 MW total to 14.3 MW), with a commensurate increase in the volume of timber that can be kiln dried.

The Phase 1 reduction requirements were completed ahead of schedule in January 2010. This has reduced the total suspended particulate (TSP) emissions to below the standard required at the end of Phase 1.

South Pine installed a new 50,000m<sup>3</sup> capacity kiln in 2015 and retired one of the batch kilns. They also undertook investigations to look at different options for increasing its kiln capacity and at the same time considering the combustion plant needed to heat the expanded kiln capacity, while still achieving the required net reduction in particle (and SO<sub>2</sub>) emissions. In April 2018 a variation to the consent was sought to defer the Phase 2 Emissions reduction date from April to September 2018 to allow it to complete its investigations, select the appropriate plant and install it. Due to confusion around the design inputs, the cyclones are unable to meet the required reduction limits and they are now looking at installing a wet scrubber between the cyclones and the stack. Delays in manufacturing mean the wet scrubber will not be able for installation by 30 September 2018. The proposed time extension for this variation is to allow for the delivery and installation of the wet scrubber. The installation will be undertaken during the January 2019 shutdown.

## **SECTION 127 RMA**

Section 127 of the Act allows a consent holder to apply for a change to or cancellation of consent conditions. Section 127(3) states that in assessing such a s127 application, sections 88 to 121 apply, with all necessary modifications, as if the application were an application for resource consent for a discretionary activity, and the references to a resource consent and to the activity were references only to the change or cancellation of a conditions and the effects of the change or cancellation respectively. The assessment of this

application has therefore addressed only the actual and potential effects of the proposed change to the conditions.

## **THE PROPOSAL**

The Consent Holder has now sought a further variation to allow a further 4 months to complete the installation of equipment to meet the Phase 2 limits. The original application requested a variation to December, this was subsequently amended in an email dated 19<sup>th</sup> September 2019 for an additional month. The Consent Holder has noted that the further delay is due to a delay in manufacturing by plant's suppliers, meaning that the completion date of 30 September can no longer be met, and the additional time requested is required to modify emission control equipment that was installed between late December 2018 and early January 2019 so that the Phase 2 emission levels can be met.

The new cyclone equipment does not provide sufficient emission control. A subsequent modelling showed this to be the case, with the estimated TSP level being 320mg/m<sup>3</sup> from the new stack when the intended output was to be under 100mg/m<sup>3</sup>.

The Consent Holder has noted that subsequent reviews of the design and planning process by their technical consultant identified that they had used an incorrect particulate concentration level. In order to address this the installation of a pre-separator cyclone before the high-efficiency cyclone system was recommended. However, subsequent assessment found that this would not achieve the required Phase 2 limit and that a wet scrubber would be required to meet the TSP Phase 2 limits.

## **ASSESSMENT OF EFFECTS**

These changes are outlined in detail in the application and supporting information prepared by South Pine (Nelson) Ltd (dated 28 August 2018). A previous assessment of the environmental effects associated with the delay was undertaken by Environet Ltd (Council's peer review). The assessment concluded 'that the delay of the installation of the equipment is unlikely to pose a significant risk to compliance with the NES for PM<sub>10</sub>. While it will result in the delaying of the health benefits associated with the emissions reductions for a further spring and while this is not ideal, 2017 data suggests the community is still benefiting from improved winter time air quality'.

The emissions from South Pine improved last year with the Total Mass Emission limit (kg/hr) meeting the Phase 2 level, although the Vekos emissions, while being below the Phase 1 were still well above the Phase 2 limits. TSP emissions from the Vekos since the granting of the original consent have decreased from 400 mg/Sm<sup>3</sup> in 2010 to 326 mg/Sm<sup>3</sup> in 2017.

The environmental effects from the proposed variation are considered to be no more than minor due to the following reasons:

- The climatic conditions during the proposed extension period comprise stronger winds averaging over 14km/hr, with gusts of over 40km/hr common in during the day. Greater average wind speeds will result on more mixing of any particulate matter within the discharge from the South Pine site, resulting in an overall lower average concentration beyond the property boundary.
- During the term of the consent there has been continual reduction in the concentration of emissions from the South Pine site. The total mass emissions from the site has reduced from 3.7 in 2013 to 2.1 in 2017.
- The applicant has made a significant investment in emission control infrastructure since the granting of the consent. They have demonstrated a desire to comply with the discharge limits and have not been able to meet timeframes due to technical constraints outside of their control.

- As a result of improvements in air quality there has been a reduction in the number of complaints associated with smoke from South Pine. The last complaint associated with South Pine was in February this year, prior to that the last one was in 2009. None of the submitters who opposed the original consent application in 2009 have complained about smoke or odour from the operation since the consent was granted.
- The use of a wet scrubber will also reduce the pressure of the steam/smoke emission, resulting in less steam being emitted from the stack. This will however mean that South Pine will have a greater amount of liquid and solid waste generated at the site which will need to be discharged into the tradewaste system or disposed of to landfill and greater operation and maintenance costs.
- Discussions with Air Quality experts at the Council has revealed that recent breaches with the national air quality standard were attributed to dust from other sites and not smoke particulates from the applicant's operation.

The proposed variation to delay compliance with the Phase 2 compliance requirement will result in less than minor environmental effects.

### **PLAN RULES AFFECTED**

According to the Nelson Resource Management Plan, the following apply to the subject property:

Zoning: Industrial

Overlays: None relevant

Airshed: B1

Status: The proposed change of conditions is deemed to be a Discretionary Activity in accordance with Section 127(3)(a) of the Act.

### **STATUTORY CONSIDERATIONS**

#### **Policy Statements and Plans**

The proposed extension to the implementation of the Phase 2 targets are minor and any effects will be temporary. Pursuant to section 127(3) of the Act, consideration of the effects of the proposed change in conditions is limited to the effects of the change sought. The provisions of the relevant statutory documents were considered in full when the existing consent was determined. The proposed changes sought are consistent with the existing consent and continue to be consistent with the relevant provisions of the statutory plans.

#### **Part 2 RMA Matters**

The effects of the proposed change are considered to be less than minor, and the proposal is considered to be consistent with the purpose and principles of the Act. There are no section 6 matters affected by the proposed variation, and the development and proposed amendments continue to represent the efficient use, development and management of natural and physical resources required by section 7(b), and the proposal will not detract from the quality of the environment (section 7(f)).

## REASONS FOR THE DECISION

1. The activity remains broadly consistent with the National Environmental Standards (NES) for Air Quality and the Nelson Air Quality Plan (AQP) (including the policies and objectives contained in section 5). As an example, Objective A5-1 'Air Quality' of the Nelson AQP seeks to avoid adverse effects on the environment of localised discharges to air. It is considered that this activity will achieve this objective, particularly as the assessment of the effects is related to the 4 month extension of the Phase 2 deadline.
2. Policy A5-1.4A 'Existing large-scale fuel burning activities' states that when considering applications for resource consent for existing discharges to air from large scale fuel burning appliances in Airsheds that breach the NES for Air Quality for fine particles (PM10), particular regard will be had to the social and economic benefits of allowing the activity to continue and the level of existing investment in it, providing that granting consent is consistent with the NES and improvements to the discharge will occur which support achievement of the NES and Air Quality Plan targets. It is noted that South Pine is a large industry and being unable to operate would have significant social and economic effects. As identified above, the assessment of effects related to this variation is limited to the effect of the extension sought, and these effects have been determined to be less than minor. The proposal is therefore considered to be consistent with this Policy.
3. The Council considers that the adverse effects of the activity on the environment will be no more than minor and there are no persons adversely affected by this proposal.
4. The activity is considered to be consistent with the relevant objectives and policies contained in the Nelson Resource Management Plan and the Nelson Regional Policy Statement. In particular objective IN2 and policy IN2.2 nuisances beyond the boundary of the site. The applicant is proposing to install a wet scrubber to meet compliance requirements to ensure that there is no to limited impact beyond the boundary of the site. The use of a wet scrubber will also reduce steam emissions from the South Pine site due to a decreased in pressure of the emission.
5. The Council has taken into account the relevant principles outlined in sections 6, 7 and 8 of the Act and it is considered that granting this resource consent achieves the purpose of the Act as set out in section 5.

This application to change conditions is **granted** on 28 September 2018 under delegated authority from Nelson City Council by:

Jennifer Lancashire  
**Team Leader Resource Consents**

## APPENDIX A

**Full and Updated Conditions for Resource Consent RM085308 dated 2 July 2010 as varied by RM085308V1 dated 10 September 2012, RM085308V2 dated 8 July 2015, RM085308V3 dated 2 August 2016, RM085308V4 dated 15 April 2018 and RM085308V5 dated 28 September 2018:**

### **1. Definition of Allowed Discharges**

#### **Until completion of the Phase 1 Emission Reductions (condition 3)**

Discharges of contaminants to air shall only be from the operation of:

- (a) one Scotts Combustor (having a gross heat output of not more than 6 MW);
- (b) one Sawdust Drier;
- (c) one Vekos Boiler (having a gross rated heat output of not more than 4.5 MW); and
- (d) seven Timber Drying Kilns with a nominal timber capacity of around 400 cubic metres,

as described in the application (Nelson City Council number RM085308) at a site legally described as Lots 9-16 DP 13460, Lot 1 DP 7279, Pt Lot 2 DP 11840, Lot 2 Pt Lot 1 DP 4905, Pt Lot 1 DP 5375, Lot 1 DP 5981, Lot 1 DP 9013, Lot 3 DP 307039 and Sec 1 SO 327063), situated on Quarantine Road and Pascoe Street, Tahunanui, Nelson, at or about Map Reference NZMG 2529949E, 5989914N.

#### **From completion of the Phase 1 Emission Reductions until completion of Phase 2**

As above, except conditions 1(a) and 1(b) shall be replaced by:

- (a) one Scotts Combustor (having a gross heat output of not more than 6 MW) and associated Sawdust Drier;
- (b) [*deleted*]

#### **From completion of the Phase 2 Emission Reductions (condition 4)**

As above, except conditions 1(c) and 1(d) shall be replaced by:

- (c) one Scotts Combustor (having a gross heat output of not more than 8.3 MW); and
- (d) up to nine Timber Drying Kilns with a nominal timber capacity of up to 520 cubic metres.

### **2. Consent Duration**

This consent shall expire on 30 April 2026.

### **3. Phase 1 Emission Reductions**

The particulate matter emission control equipment at the Scotts Combustor shall be upgraded, and the Scotts Combustor and the Sawdust Drier shall be integrated, as described in the Application documentation (application, Assessment of Environmental Effects and Section 92 response). Prior to the design being finalised, relevant technical information shall be provided to the Consent Authority, together with a report from an air quality consultant showing:

- (i) that the proposed PM<sub>10</sub> emission reductions will be achieved by 1 May 2010;
- (ii) that the design of the upgraded particulate matter collection equipment is such as to achieve the guaranteed performance provided in the original application, AEE and Section 92 response; and
- (iii) that the dispersion of contaminants from the upgraded Scotts Combustor and Sawdust Drier stack will be no worse than from the existing two stack configuration.
- (iv) The Consent Holder shall at all times during the duration of the consent, retain a copy of the Application, AEE and Section 92 response in either hard copy or CD form.

**Advice Note:**

The design of the upgraded particulate matter collection equipment is required to achieve a guaranteed emission concentration for total suspended particulate (TSP) not exceeding 100 milligrams per cubic metre, adjusted to 0 degrees Celsius, 8.5% oxygen and 101.3 kilopascals, on a dry gas basis. The air quality consultant will need to confirm that appropriate safety factors have been used to accommodate the required long term operating performance.

**4. Phase 2 Emission Reductions**

The Vekos Boiler shall be either retained or replaced with a combustion plant having a gross heat output not exceeding 8.3 MW. Prior to the design being finalised relevant technical information shall be provided to the Consent Authority, together with a report from an air quality consultant showing:

- (i) that the proposed PM<sub>10</sub> and SO<sub>2</sub> emission reductions will be achieved by 31 January 2019;
- (ii) that the design of the particulate matter collection equipment to be installed is such as to achieve the guaranteed performance provided in the original application, AEE and Section 92 response; and
- (iii) that the adverse effects of contaminants discharged from the combustion plant stacks and the Timber Drying Kilns will be no greater than those indicated by modelling provided in the original application, AEE and Section 92 response.
- (iv) The Consent Holder shall at all times during the duration of the consent, retain a copy of the Application, AEE and Section 92 response in either hard copy or CD form.

**Advice Note:**

The design of the upgraded particulate collection equipment is required to achieve a guaranteed emission concentration for TSP not exceeding 100 milligrams per cubic metre, adjusted to 0 degrees Celsius, 8.5% oxygen and 101.3 kilopascals, on a dry gas basis. The air quality consultant will need to confirm that appropriate safety factors have been used to accommodate the required long term operating performance.

## **5. Combustion Plant Stack Heights**

### **Until completion of the Phase 1 Emission Reductions (condition 3)**

- (a) The discharge to air from the Scotts Combustor shall occur via a stack at a height of at least 16 metres above ground level.
- (b) The discharge to air from the Sawdust Drier shall occur via a stack at a height of at least 14.4 metres above ground level.
- (c) The discharge to air from the Vekos Boiler shall occur via a stack at a height of at least 15 metres above ground level.
- (d) The discharges from combustion sources detailed in conditions 5(a), 5(b) and 5(c) shall be directed vertically into air and shall not be impeded by any obstruction above the stack that decreases the vertical efflux velocity below that which would occur in the absence of such obstruction.

### **From completion of the Phase 1 Emission Reductions until completion of Phase 2**

As above, except conditions 5(a) and 5(b) shall be replaced by:

- (a) The discharge to air from the Scotts Combustor and Sawdust Drier shall occur via the drier cyclone stack at a height of at least 20 metres above ground level.
- (b) [*deleted*]

#### **Advice Note:**

The reason for the replacement condition 5(a) referring to the drier cyclone stack is to make it clear that the redundant stacks are not to be used to discharge contaminants to air.

### **From completion of the Phase 2 Emission Reductions (condition 4)**

As above, except condition 5(c) shall be replaced by:

- (c) The discharge to air from the Vekos Boiler or from the replacement combustion plant shall occur via a stack at a height of at least 20 metres above ground level.

## **6. Type of Fuel to be Burned**

### **Until completion of the Phase 2 Emission Reductions (condition 4)**

- (a) Only wood which has not been treated with any chemicals shall be burned in the Scotts Combustor and Vekos Boiler, except that containing antisapstain residues, the burning of which shall be kept to a minimum and shall not exceed 50 kilograms per hour.

#### **Advice Note:**

Because the use of antisapstain is likely to be periodic or seasonal a short-term quantity of treated residues is specified. The basis of the calculation was an annual quantity of 125 tonnes per annum.

- (b) Only coal with a sulphur content of less than 0.7 % by weight and a gross calorific value of greater than 26 MJ/kg shall be burned in the Vekos Boiler.

**From completion of the Phase 2 Emission Reductions (condition 4)**

As above, except conditions 6(a) and 6(b) shall be replaced by:

- (a) Only wood which has not been treated with any chemicals shall be burned in the combustion plant, except that containing antisapstain residues, the burning of which shall be kept to a minimum and shall not exceed 50 kilograms per hour.
- (b) Only coal with a sulphur content of less than 1.0 % by weight and a gross calorific value of greater than around 26 MJ/kg shall be burned in the combustion plant.

**Advice Note:**

When burning coal the addition of alkali to the scrubber liquor may be necessary to ensure pH is kept alkaline.

**7. Amount of Fuel to be Burned**

**Until completion of the Phase 2 Emission Reductions (condition 4)**

- (a) The maximum burning rate of wood in the 6 MW gross Scotts Combustor shall not exceed 2,200 kg/hr.
- (b) The maximum burning rate of wood in the Vekos Boiler shall not exceed 930 kg/hr.
- (c) The maximum burning rate of coal in the Vekos Boiler shall not exceed 610 kg/hr.
- (d) A record shall be kept of the type and quantity of fuel burned in both combustion units each day. This record shall be provided to the Consent Authority at least once every 12 months, or as requested by the Consent Authority.

**From completion of the Phase 2 Emission Reductions (condition 4)**

As above, except conditions 7(b) and 7(c) shall be replaced by:

- (b) The maximum burning rate of wood in the Vekos Boiler shall not exceed 930 kg/hr.  
The maximum burning rate of wood in any combustion plant replacing the Vekos Boiler shall not exceed 3,000 kg/hr.
- (c) The maximum burning rate of coal in the combustion plant collectively shall not exceed 300 kg/hr in total at any time, except if planer mill or feeding system failure occurs when up to 600 kg/hour for a period not exceeding 48 hours may be burned.

**8. Concentrations of PM<sub>10</sub> and TSP in Exhaust Gases**

**Until completion of the Phase 1 Emission Reductions (condition 3)**

- (a) The concentration of PM<sub>10</sub> in the discharge from the Scotts Combustor stack shall not exceed 250 milligrams per cubic metre, adjusted to 0 degrees Celsius, 8.5% oxygen and 101.3 kilopascals, on a dry gas basis.

- (b) The concentration of PM<sub>10</sub> in the discharge from the Sawdust Drier stack shall not exceed 250 milligrams per cubic metre, adjusted to 0 degrees Celsius, 8.5% oxygen and 101.3 kilopascals, on a dry gas basis.
- (c) The concentration of PM<sub>10</sub> in the discharge from the Vekos Boiler shall not exceed 400 milligrams per cubic metre, adjusted to 0 degrees Celsius, 8.5% oxygen and 101.3 kilopascals, on a dry gas basis.

**Advice Note:**

The purpose of these concentration emission limits is to demonstrate satisfactory performance of the particulate emission control equipment. They also form individual assessment criteria for the source emission testing required by condition 11. Notwithstanding that, the primary criteria for assessment of satisfactory emissions are the total mass emission rate limits in condition 9.

**From completion of the Phase 1 Emission Reductions until completion of Phase 2**

As above, except conditions 8(a) and 8(b) replaced by:

- (a) The concentration of TSP in the discharge from the 6 MW gross Scotts Combustor and Sawdust Drier stack shall not exceed 100 milligrams per cubic metre adjusted to 0 degrees Celsius, 8.5% oxygen and 101.3 kilopascals, on a dry gas basis.
- (b) [*deleted*]

**From completion of the Phase 2 Emission Reductions (condition 4)**

As above, except condition 8(c) replaced by:

- (c) The concentration of TSP in the discharge from the Vekos Boiler stack or from the stack or the replacement combustion plant shall not exceed 100 milligrams per cubic metre adjusted to 0 degrees Celsius, 8.5% oxygen and 101.3 kilopascals, on a dry gas basis.

And, a new condition 8(d) is added:

- (d) All combustion gases and drier gases from the combustion plant, excluding minor fugitive emissions, shall be directed to their respective water scrubbers.

**9. Mass Emission Rates of PM<sub>10</sub> and TSP**

**Until completion of the Phase 1 Emission Reductions (condition 3)**

The total mass emission rate of PM<sub>10</sub> from the Scotts Combustor stack, the Sawdust Drier stack and the Vekos Boiler stack, when measured in accordance with condition 11, shall not exceed 3.4 kilograms per hour.

**Advice Note:**

For emission inventory purposes a longer term emission limit is required. When averaged over 24 hours, the total mass emission rate of PM<sub>10</sub> from the Scotts Combustor stack, the

Sawdust Drier stack and the Vekos Boiler stack shall not exceed 50 kilograms per day. The basis of this calculation is a plant operating factor of 70%.

**From completion of the Phase 1 Emission Reductions until completion of Phase 2**

The total mass emission rate of PM<sub>10</sub> from the Scotts Combustor and Sawdust Drier stack and the Vekos Boiler stack, when measured in accordance with condition 11, shall not exceed 2.6 kilograms per hour. If stack conditions do not allow measurement of PM<sub>10</sub>, then the mass emission limit shall be 3.9 kilograms per hour of TSP, and from 2 August 2016 until completion of the Phase 2 Emissions Reductions, 2.9 kilograms per hour of TSP.

**Advice Note:**

For emission inventory purposes longer term emission limits are required. When averaged over 24 hours, the total mass emission rate of PM<sub>10</sub> from the Scotts Combustor and Sawdust Drier stack and the Vekos Boiler stack shall not exceed 37 kilograms per day, and for TSP shall not exceed 65 kilograms per day. The basis of these calculations is a plant operating factor of 70%.

**From completion of the Phase 2 Emission Reductions (condition 4)**

The total mass emission rate of PM<sub>10</sub> from the combustion plant collectively, when measured in accordance with condition 11, shall not exceed 2.0 kilograms per hour. If stack conditions do not allow measurement of PM<sub>10</sub>, then the mass emission limit shall be 2.4 kilograms per hour of TSP.

**Advice Note:**

For emission inventory purpose longer term emission limits are required. When averaged over 24 hours, the total mass emission rate of PM<sub>10</sub> from the combustion plant collectively shall not exceed 34 kilograms per day, and for TSP shall not exceed 40 kilograms per day. The basis of these calculations is a plant operating factor of 70%.

**10. Mass Emission Rates of SO<sub>2</sub>**

**Until completion of the Phase 2 Emission Reductions (condition 4)**

The Consent Holder shall keep records of the coal blend burned in the Vekos Boiler, including the gross calorific value and sulphur content by weight, and the calculated maximum sulphur dioxide emission rate based on that information. These records shall be provided to the Consent Authority at least once every 12 months. The rate of discharge of sulphur dioxide, as calculated from the maximum burning rate of the coal blend used and the sulphur content of that coal blend, allowing for sulphur retention in the ash from the Boiler. The rate of discharge of sulphur dioxide, as measured in accordance with condition 11, shall not exceed 8.1 kilograms per hour.

**From completion of the Phase 2 Emission Reductions (condition 4)**

The Consent Holder shall keep records of the coal blend burned in the combustion plant, including the gross calorific value and sulphur content by weight, and the calculated maximum sulphur dioxide emission rate based on that information. These records shall be

provided to the Consent Authority at least once every 12 months. The rate of discharge of sulphur dioxide, as calculated from the maximum burning rate of the coal blend used and the sulphur content of that coal blend, can allow for sulphur retention in the ash from the Combustors. The rate of discharge of sulphur dioxide, as measured in accordance with condition 11, shall not exceed 4.0 kilograms per hour.

**Advice Note:**

When burning coal the addition of alkali to the scrubber liquor may be necessary to ensure pH is kept alkaline.

**11. Emission Test Frequency and Method**

**Until completion of the Phase 1 Emission Reductions (condition 3)**

- (a) The concentration of PM<sub>10</sub> discharged from the three stacks referred in condition 5, and SO<sub>2</sub> discharged from the Vekos Boiler while burning coal, shall be measured at least once every 12 months.
- (b) Test sampling shall occur when each combustion unit is operated at greater than 50 percent of maximum capacity. The method of sampling and analysis for particulate matter shall be USEPA Method 201A, or an equivalent method. The method of sampling and analysis for sulphur dioxide shall be USEPA Method 6, or an equivalent method.
- (c) Sampling results shall be adjusted to 0 degrees Celsius, 8.5% oxygen and 101.3 kilopascals, on a dry gas basis, and as a mass emission expressed as kilograms per hour. The results shall include a description of the method used, the combustion unit output during testing and any assumptions made.
- (d) The organisation performing the test shall at that time be accredited under ISO 17025 to the method used to do the testing, or accredited to that method by another quality control organisation acceptable to the Consent Authority.
- (e) A copy of the test results shall be retained and provided to the Consent Authority on request.

**From completion of the Phase 1 Emission Reductions until completion of Phase 2**

As above, except conditions 11(a) and (b) replaced by:

- (a) The concentration of PM<sub>10</sub> discharged from the two stacks referred in condition 5, or TSP if stack conditions do not allow measurement of PM<sub>10</sub> emitted from the Scott Combustor stack, and SO<sub>2</sub> discharged from the Vekos Boiler while burning coal, shall be measured at least once every 12 months.
- (b) Test sampling shall occur when each combustion unit is operated at greater than 50 percent of maximum capacity. The method of sampling and analysis for PM<sub>10</sub> shall be USEPA Method 201A, or an equivalent method. If stack conditions do not allow measurement of PM<sub>10</sub>, then the method of sampling and analysis for TSP shall be methods ISO9096: 2003 or USEPA Method 5, or equivalent methods. The method of

sampling and analysis for sulphur dioxide shall be USEPA Method 6, or an equivalent method.

**From completion of the Phase 2 Emission Reductions (condition 4)**

As above, except condition 11(a) and (b) replaced by:

- (a) The concentration and mass emission of PM<sub>10</sub> discharged from the two stacks referred in condition 5, or TSP if stack conditions do not allow measurement of PM<sub>10</sub>, and SO<sub>2</sub> discharged from one of the combustion units while burning coal, shall be measured at least once every 12 months.
- (b) Test sampling shall occur when each combustion unit is operated at greater than 50 percent of maximum capacity. The method of sampling and analysis for PM<sub>10</sub> shall be USEPA Method 201A, or an equivalent method. If stack conditions do not allow measurement of PM<sub>10</sub>, then the method of sampling and analysis for TSP shall be methods ISO9096: 2003 or USEPA Method 5, or equivalent methods. The method of sampling and analysis for sulphur dioxide shall be USEPA Method 6, or an equivalent method.

**12. Plant Maintenance**

The combustion units and the driers shall be maintained at least once every year, by a person competent in the servicing of such plant. This maintenance shall include for the combustion units adjustment (if necessary) of the fuel to air ratio and testing of the ratio of combustion gases discharged (i.e. carbon monoxide, carbon dioxide and oxygen) using suitably calibrated instruments. Service reports shall be prepared and retained, and copies shall be provided to the Consent Authority on request.

**13. Plume Opacity**

The opacity of the stack emissions, excluding wet steam, shall not be darker than Ringelmann Shade 1 as described in New Zealand Standard 5201:1973 except:

- (a) in the case of a cold start, for a period not exceeding 30 minutes in the first hour of operation; and
- (b) for a period not exceeding a total of four minutes in each succeeding hour of operation.

**14. Operation of Kilns – volume of wood processed**

**Until completion of the Phase 2 Emission Reductions (condition 4)**

- (a) The total volume of green timber being dried in the kilns shall not exceed 400 m<sup>3</sup> at any one time.
- (b) The total volume of timber dried in the kilns shall not exceed 75,000 m<sup>3</sup> in any calendar year.

- (c) The total volume of treated timber being re-dried in the kilns shall not exceed 160 m<sup>3</sup> at any one time.
- (d) The total volume of treated timber re-dried in the kilns shall not exceed 14,000 m<sup>3</sup> in any calendar year.
- (e) The Consent Holder shall monitor and record the volume of timber dried in each kiln to determine compliance with condition 14(a), 14(b) 14(c) and 14(d).
- (f) Records shall be retained for a period of at least 12 months and also be made available to the Consent Authority within two working days on request.

**From completion of the Phase 2 Emission Reductions (condition 4)**

As above, except condition 14(b) replaced by:

- (b) The total volume of timber dried in the kilns shall not exceed 100,000 m<sup>3</sup> in any calendar year.

**15. Operation of Kilns – temperature regime**

**Until completion of the Phase 2 Emission Reductions (condition 4)**

- (a) The kilns shall be operated at temperatures not exceeding 110°C (dry bulb).
- (b) The Consent Holder shall monitor and record the temperature in each kiln to determine compliance with condition 15(a).
- (c) Records shall be retained for a period of at least 12 months and also be made available to the Consent Authority within two working days of request by the consent authority.

**From completion of the Phase 2 Emission Reductions (condition 4)**

As above, except condition 15(a) replaced by:

- (a) The kilns shall be operated at as low a temperature as commercially practicable and, in any case, the medium temperature kiln temperatures shall not exceed 110°C (dry bulb) and the 'soft' high temperature kiln temperature shall not exceed 130°C (dry bulb).

**16. Odour, Deposited Particulate and Visible Plume Effects**

Discharges from the operation of the combustion units or timber drying kilns shall not cause odour, deposited particulate material or visible plumes (including blue haze), which is objectionable or offensive beyond the boundary of the property on which the consent is exercised.

**17. Complaints Records**

A record of all complaints relating to odour or particulate matter caused by a discharge from the Consent Holder's operations shall be maintained, and shall include:

- (a) the location where the odour or particulate matter was detected by the complainant;
- (b) the date and time when the odour or particulate matter was detected;

- (c) a description of the wind speed and wind direction when the odour or particulate matter was detected;
- (d) the most likely cause of the odour or particulate matter detected;
- (e) any corrective action undertaken by the consent holder to avoid, remedy or mitigate the odour or particulate matter; and
- (f) this record shall be provided to the Consent Authority on request.

#### **18. Annual Consent Review**

The Consent Authority may, once per year, until 2016 on any of the five last working days of November each year, and from 2017 on any of the five last working days in February 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 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; and
- (c) to consider consistency of the conditions of this consent with progress toward achieving the air quality targets in the Nelson Air Quality Plan.

#### **Advice Note:**

If, following the annual reviews, reductions in emissions are deemed to be necessary the work shall be carried out until 2016 during the Christmas shutdown, and from 2017 during the Easter shutdown. The implementation date for any revised conditions of consent shall be from the 1 May following. As part of the annual review in February 2026 the Consent Authority may evaluate how it intends processing any application for a new consent (that is, whether to notify or not, etc).