The New Zealand Ecolabelling Trust

**Proposed Revised** Licence Criteria for Sanitary Paper Products

EC-13-15

Open for comment until 20 March 2017

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Specification change history

Minor clarifications, corrections or technical changes made since the specification was last reviewed and issued in October 2014.

<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Change</th>
</tr>
</thead>
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<tr>
<td>June 2015</td>
<td>EC-13-15</td>
<td>Addition of subcategory 4.4 to section 4, Category Definition. This brings EC-13 in line with EC-10 for Packaging and Paperboard and EC-12 for Newsprint and Derived Products. Both EC-10 and EC-12 allow base/substrate paper to be licensed, as well as consumer products. A similar change has also been made to EC-26.</td>
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The Trust last reviewed the suite of four paper products specifications in October 2014. An additional, small, technical change was made to the Sanitary Paper Products specification in June 2015.

This current notification draft has been prepared as part of a limited review of the Sanitary Paper Products specification. It includes only Clauses 5.2.1, 5.4.1, part of 5.4.3, 5.5 and 5.7.

Since the revised specification was last published in October 2014, the Trust has noticed that many licence holders/applicants are having difficulty understanding the type of fibre sourcing information they need to provide in order to demonstrate compliance with the requirements in Clause 5.2.1. The Trust is proposing to reword and clarify these requirements and the information needed.

Licence holders/applicants also regularly have difficulty obtaining details of phosphorus emissions from the mills, needed for the calculation in Clause 5.4.3. The Trust is proposing to include some additional notes to help assessors determine the environmental significance of the phosphorus emissions from those sources.

The Trust has also noted that the CO₂ limit in Clause 5.4.1 may not be appropriate for sanitary paper products available in the New Zealand market. The Trust is proposing to re-examine the rationale behind the current CO₂ limit.

Finally, the Trust is proposing some small changes to clarify the scope of Clause 5.5 on energy management and Clause 5.7 on waste management.

Text that is proposed to be changed is highlighted. Proposed additions are underlined, and proposed deletions are struck.

Shaded text boxes in this working draft include notes about the requirements being proposed and some questions to prompt comments. The Trust invites comments from interested parties.
1 Introduction

Environmental Choice New Zealand (ECNZ) is an environmental labelling programme which has been created to help businesses and consumers find products and services that ease the burden on the environment. The programme results from a New Zealand Government initiative and has been established to improve the quality of the environment by minimising the adverse and maximising the beneficial environmental impacts generated by the production, distribution, use and disposal of products, and the delivery of services. The programme is managed by the New Zealand Ecolabelling Trust (the Trust).

ECNZ operates to the ISO 14024:1999 standard "Environmental labels and declarations – Type I environmental labelling – Principles and procedures" and the Trust is a member of the Global Ecolabelling Network (GEN) an international network of national programmes also operating to the ISO 14024 standard.

ISO 14024 requires environmental labelling specifications to include criteria that are objective, attainable and verifiable. It requires that interested parties have an opportunity to participate and have their comments considered. It also requires that environmental criteria be set, based on an evaluation of the environmental impacts during the actual product or service life cycle, to differentiate product and services on the basis of preferable environmental performance.

The life cycle approach is used to identify and understand environmental issues (adverse or beneficial impacts) across the whole life of a product or service (within a defined product or service category). This information is evaluated to identify the most significant issues and from those to identify the issues on which it is possible to differentiate environmentally preferable products or services from others available in the New Zealand market. Criteria are then set on these significant and differentiating issues. These must be set in a form and at a level that does differentiate environmentally preferable products or services, is attainable by potential ECNZ licence applicants and is able to be measured and verified. As a result of this approach, criteria may not be included in an ECNZ specification on all aspects of the life cycle of a product or service. If stages of a product or service life cycle are found not to differentiate environmentally preferable products or services, or to have insufficient data available to allow objective benchmarking in New Zealand, those stages will not generally be included in criteria in the specification. For some issues, however, (such as energy and waste) criteria may be set to require monitoring and reporting. These criteria are designed to generate information for future reviews of specifications.

The Trust is pleased to publish this specification for Sanitary Paper Products. This specification sets out the requirements that Sanitary Paper Products will be required to meet in order to be licensed to use the ECNZ Label. The requirements include environmental criteria and product characteristics. The specification also defines the testing and other means to be used to demonstrate and verify conformance with the environmental criteria and product characteristics.

This specification has been prepared based on an overview level life cycle assessment, information from specifications for similar products from other GEN-member labelling programmes, relevant information from other ECNZ specifications, information made available from existing licence holders and information in publically available paper procurement and paper industry publications.

This specification is valid for a period of five years. Twelve months before the expiry date (or at an earlier date if required), the Trust will initiate a review process for the specification.
2 Background

Manufacturing and use of paper products can, potentially, result in significant burdens being placed on the environment. These burdens can occur throughout the life cycle of the paper product, from sourcing of the raw materials and manufacturing the pulp and paper, through to disposal of the end product after use.

Sustainable management of forests is an issue of much concern and debate internationally. A number of schemes have been developed to define principles, criteria and measures of sustainable management and provide processes for Sustainable Forest Management (SFM) to be independently assessed and assured. SFM can be used in native and plantation forests. Unsustainable management of native forests can lead to the destruction of valuable ecosystems and unsustainably managed plantations can result in conversion of native forests or other ecologically valuable land uses, for production of timber. The proposed criteria in this ECNZ specification accommodate the input of virgin fibre by allowing only native fibre from forests which have been certified as being sustainably managed, and requiring a proportion of the virgin fibre from plantations to be certified as being sustainably managed. The criteria also promote the use of recycled fibre, whilst recognising that fibres can only be recycled a limited number of times. Also, some input of virgin fibre is required in the manufacturing of certain products to achieve required strengths and/or finishes.

In response to concerns over unsustainable management of forests, a range of alternatives to wood fibre are now being used to manufacture paper, including bamboo, hemp and bagasse. This proposed revised specification includes new criteria which address the environmental impacts associated with these alternatives.

During manufacture, process effluents can contain high concentrations of natural organic materials which deplete oxygen in receiving waters, adversely impacting plant and animal life. Sulphur, organochlorines and other hazardous substances, particularly halogenated organics, used in or resulting from the manufacturing process (e.g. from bleaching or for cleaning of equipment) can be persistent. They can, potentially, bioaccumulate and have toxic effects on the environment if discharged in effluents. Poorly-biodegradable detergents (surfactants) may also accumulate and be toxic or otherwise harmful in the environment if discharged.

This specification addresses the issue of emissions from pulp and paper manufacture. It aims to reduce or eliminate the discharge of toxic and environmentally persistent compounds, such as sulphur compounds, oxygen consuming organic material and organochlorines into the environment.

This specification introduces the best practice approach to criteria for hazardous substances taken in other ECNZ specifications. This approach is based on international best practice and guidance developed by the EU. The criteria include bans or restrictions on chemicals based on their hazardous properties (e.g. carcinogens or ecotoxins). Where necessary and appropriate, substance-specific requirements are included where there are sound technical reasons to address them on an exception basis.

Criteria are also included in this specification regarding waste management, energy efficiency, packaging and product safety. These criteria have been included to address environmental issues across the entire life-cycle of the products.

Based on a review of currently available information, the following product category requirements will produce environmental benefits by reducing fibre use from unsustainable sources; decreasing emissions to air and water; minimising the use of harmful chemicals;
managing production waste; and improving energy efficiency. As information and technology change, product category requirements will be reviewed, updated and possibly amended.

3 Interpretation

ADt means Air dry tonne of pulp (ADt) meaning dry solids content of 90 %.

AOX means Absorbable Organic Halogen. A measure of the quantity of chlorine (and other halogens) associated with organic compounds.

APEOs (Alkylphenol ethoxylates) are defined as substances that upon degradation produce alkyl phenols. They include nonylphenol ethoxylates (NPEOs), which degrade to nonylphenol.

Chemical pulp refers to pulp produced using the sulphite or sulphate (Kraft) methods, where wood chips are cooked in pressurised vessels in the presence of bisulphite or sodium hydroxide liquor.

Coating means a substances added to the base paper to give it certain qualities.

COD (Chemical Oxygen Demand) means the mass concentration of oxygen equivalent to the amount of dichromate consumed by dissolved and suspended matter when a water sample is treated with the oxidant under defined conditions.

DIP means de-inked pulp or recycled pulp.

EDTA (ethylene diamine-tetra-acetic acid) is a complexing agents used to bind metals found in raw materials and in process water.

FSC refers to the Forest Stewardship Council.

GEN refers to the Global Ecolabelling Network.

ISO means International Organisation for Standardisation.

Label means the ECNZ Label.

Mechanical pulp refers to pulp produced by grinding wood. It may involve the use of steam or chemicals to soften the wood prior to grinding. It includes stone groundwood, thermo-mechanical pulp (TMP) and chemithermomechanical pulp (CTMP).

NOx is a joint chemical abbreviation for nitrogen oxides (NO, N2O and NO2). In this document NOx means total NO and NO2 measured as NO2 equivalents.

P is the atomic symbol for phosphorus. In this document P means phosphorus discharged to water.

PEFC refers to the Programme for the Endorsement of Forest Certification.

PCB refers to Polychlorinated Biphenyls.

PCP refers to Pentachlorophenol.

Post-consumer refers to material generated by households, or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.
Pre-consumer refers to material diverted from the waste stream during a manufacturing process. Excluded is re-utilisation of materials such as rework, or scrap generated in a process and capable of being reclaimed within the same process that generated it.

Readily biodegradable surfactants are those where the average level of biodegradation observed in an aerobic sewage treatment plant is at least 90% during a residence time of not more than 3 hours. In order to meet this requirement the surfactant must either meet the requirement for “readily biodegradable” when determined using one of the five test methods described in the OECD Guidelines for Testing of Chemicals, Test Guidelines 301A-301E OR achieve a biodegradability of at least 80 % when tested by the OECD method, published in the OECD technical report 11 June 1976 on the “Proposed Method for the Determination of the Biodegradability of Surfactants used in Synthetic Detergents“, OR as listed in the Danish Environmental Protection Agency report “Environmental Health Assessment of Substances in Household Detergents and Cosmetic Detergent Products” (2001), or equivalent test. The pass level of 80 % recognises the inherent experimental variability of the OECD test.

Recycled content refers to post-consumer or pre-consumer material. Purchased broke, and broke generated within the mill is defined as new fibre if the fibre raw material is new fibre, and as recycled fibre if the raw material is recycled fibre.

Renewable energy sources means renewable non-fossil energy sources, e.g. wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogas.

$S$ is the atomic symbol for sulphur. In this document it means gaseous emissions of sulphur to the atmosphere, such as sulphur dioxide and reduced sulphur compounds.

SFM means a Sustainable Forest Management certification scheme.

Ultimately biodegradable means in accordance with the OECD Test Guidelines 302A-302C.

### 4 Category definition

This category includes the following sanitary paper products:

4.1 toilet paper;
4.2 facial tissue;
4.3 paper towels and table napkins;
4.4 base paper used to manufacture one of the products in 4.1-4.3 above.

The pulps used for the paper product must be from one or more of the raw materials in Clauses 5.2.1-5.2.3 (e.g. wood, bamboo or other plant-fibres). No other pulps can be used.

To be licensed to use the Label, a Sanitary Paper product must meet all of the environmental criteria set out in clause 5 and product characteristics set out in clause 6.

**Product Information Required:**

Licence applicants must provide the following information to The Trust as part of the assessment process. Licence holders must maintain and update this information and advise The Trust about any changes to this information:

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- a product description including a list of fibres/raw materials, their suppliers, material type, geographical origin and % by weight of the finished product (see Table 1 in Appendix A);
- supply chain information (see Table 2 in Appendix A); and
- additives and hazardous substances used in the production of the product (see Table 3 in Appendix A).

**Explanatory Notes**

Completed tables of information will be attached to and form part of the Applicant’s Statement on Compliance, which must be signed by applicants during the licence assessment and confirmed by licence holders during licence supervision assessments.

Changes to information, in particular to fibre inputs and suppliers, will require assessment before they can be confirmed on an ECNZ licence.
5  Environmental criteria

5.1  Legal requirements

Criteria

The product must comply with the provisions of all relevant environmental laws and regulations that are applicable during the product’s life cycle.

Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement on regulatory compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by current documentation:

- identifying the applicable regulatory requirements including specific obligations arising from permits, regulations, and regulatory plan rules; and
- demonstrating how compliance is monitored and maintained.

Verification of continued compliance with legal requirements will form part of the Licence Supervision Plan.

Explanatory Notes

The ECNZ licence applicant/holder will need to request information about regulatory compliance from the pulp and paper manufacturers in its supply chain.

Relevant laws and regulations applicable to the facilities that are manufacturing the ECNZ-licensed product and the licence holder’s distribution and sales operations, could, for example, include those that relate to:

- producing, sourcing, transporting, handling and storing raw materials and components for manufacture;
- manufacturing processes;
- handling, transporting and disposing of waste products arising from manufacturing;
- transporting product within and between countries; and
- using and disposing of the product.

The documentation required may include, as appropriate:

- procedures for approving and monitoring suppliers and supplies;
- information provided to customers and contractors regarding regulatory requirements;
- evidence of a formal certified environmental management system (for example an ISO 14001 certificate) and supporting records on regulatory compliance (for example, copies of regulatory requirements registers, procedures to manage regulatory compliance, monitoring and evaluation reports on regulatory compliance, internal or external audits covering regulatory compliance and management review records covering regulatory compliance);
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- copies of published environmental, sustainability and/or annual reports expressly addressing environmental regulatory compliance (for example verified Environmental Statements prepared under the European EMAS regulations);
- audit reports completed by independent and competent auditors addressing regulatory compliance (for example, reports for other eco-label licences or reports from regulator audits).

It is not intended to require licence holders to accept increased legal responsibility or liability for actions that are outside their control.

5.2 Raw material source

This section applies to the raw materials used. It does not apply to coating or other additives as these are addressed in Clause 5.3.

5.2.1 Wood-based fibre

Criteria

Please refer to the flow diagrams in Appendix B.

Fibre source

The fibre source must meet one of a)-d):

a 100 % recycled content with at least 50 % post-consumer content;
   If the furnish contains recycled content, at least 50 % of the recycled fibre must be post-consumer recycled.

b 100 % from sawdust/wood chips and/or waste wood from wood processing operations, forest harvesting waste (including thinnings) and/or untreated demolition and/or recycled fibrewaste wood sources;
   AND
   All waste wood from native forests must be sourced from forests that are certified under the Forest Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification (PEFC) as sustainably managed (or equivalent certification).
   For accepted 3rd party claims, please see the notes section below.

c For virgin fibre products:
   i. all virgin fibre input from native forests must be sourced from forests that are certified under FSC or PEFC as sustainably managed (or equivalent certification).
      For accepted 3rd party claims, please see the notes section below;
   ii. a combined total of at least 50 % of the fibre in the finished product must be from either plantations or forests that are certified under FSC or PEFC as sustainably managed (or equivalent certification); and
   iii. the licence applicant (or holder) must be able to demonstrate that all uncertified virgin fibre from plantations in the sanitary paper product is from legally harvested sources.
      For accepted 3rd party claims, please see the notes section below.
b If the furnish contains fibre from native forests, the forest sources used must have current Sustainable Forest Management (SFM) certification.

Please see the notes section below for details of accepted SFM certifications.

Fibre includes that from harvested trees and that derived from waste wood, sawdust or wood chips.

c If the furnish contains fibre from plantation forests:

i. the plantations used must have current legal harvesting certification, AND

ii. a total of at least 50 % of the fibre in the furnish must be from sources that have current SFM certification. This 50 % may include any fibre from native forests that meets b) above.

Please see the notes section below for details of accepted legal harvesting and SFM certifications.

Fibre includes that from harvested trees and that derived from waste wood, sawdust or wood chips.

d For mixed fibre products, at least 90 % of the total wood-based fibre must be:

   - recycled content, or
   - waste wood (as per b), or
   - FSC or PEFC certified (or equivalent) virgin fibre, or
   - any combination of recycled content, waste wood or FSC or PEFC certified virgin fibre,

AND

   - if the remaining 10 % is virgin fibre, it must meet the requirements in c) i) and/or c)iii).

AND

Reporting

e The licence holder must have and report to The Trust on a fibre procurement programme that has the aims of maximising:

i. the post consumer component of recycled content;

ii. the percentage of virgin fibre or waste wood that is sourced from sustainably managed forests in accordance with c) i));

iii. the total percentage of fibre that is recycled, waste wood and certified as sustainable managed in mixed fibre products.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by documentation (as relevant):

- demonstrating the proportion of fibre types included in each product furnish;

- for recycled fibre, demonstrating whether the fibre is pre or post-consumer;

- demonstrating the waste wood source of the fibre;
recording the supplier, nature (native forest or plantation) and geographical source of all virgin fibre inputs;

including certificates or other evidence, for example invoices or packing slips showing FSC or PEFC claims, on forest management certification and chain of custody (to confirm the virgin fibre from native forests that is used is from a certified sustainably managed source, and virgin fibre from plantations is from certified legally harvested sources);

a calculation, spreadsheet or other evidence to demonstrate that a minimum of 50% of the virgin fibre in the furnish is from SFM;

annual reports on the fibre procurement programme; and

describing management systems in place to ensure that these requirements are consistently met.

Notes

Clause 5.2.1 requires details of forest management certifications, chain-of-custody certifications, and physical controls for SFM certified fibre through the supply chain from the forest to the paper mill. Clause 5.2.1 does not require that the finished product carry a FSC or PEFC (or equivalent) label, nor does it require any information about FSC or PEFC credits generated in the supply chain or assigned to the finished products.

For c) Broke:

Broke is not considered recycled fibre/content, unless the raw material generating the broke is recycled fibre.

For c) iii) - Legal harvesting:

The following certification schemes will be accepted as sources of information to demonstrate legal harvesting, where certificates and chain of custody evidence is available for virgin fibre sources:

- Forest Stewardship Council – “Certified” or “Controlled Wood” (www.fsc.org).
- Programme for the Endorsement of Forest Certification (PEFC)¹ - “Certified” or “Controlled Sources” (www.pefc.org).
- Rainforest Alliance SmartWood Verification of Legal Compliance (VLC) certification (http://www.rainforest-alliance.org/forestry/verification/legal).
- System Verifikasi Legalitas Kayu - Timber Legality Verification System (SVLK) certified, or SVLK/PHPL (Pengelolaan Hutan Produksi Lestari – Sustainable Production Forest Management) certified (http://liu.dephut.go.id/).
- Sustainable Forest Management Plans (supported with Annual Logging Plans) that have been prepared and approved under the New Zealand Forests Act 1949 (amended in 1993).

¹ The New Zealand Forest Certification Association (NZFCA), Australian Forest Certification Scheme (AFCS/AFS), and Sustainable Forest Initiative (SFI) (for Forest Management only NOT chain-of-custody) are recognised as part of PEFC. For details of other PEFC-approved schemes, please check the PEFC website: http://pefc.org/resources/technical-documentation/national-standards

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For b), c) i), c) ii) and d)—Sustainable Forest Management (SFM):

The FSC and PEFC certification schemes each have a range of certificates/labels. Some of these allow for wood/fibre from certified sustainably managed plantations or forests to be mixed with non-certified wood/fibre. Under FSC Mixed Credit or PEFC Volume Credit methods, wood/fibre or products associated with the certification claim or label may or may not actually contain wood/fibre from the certified sustainably managed source. Certifications accepted by The Trust are those which will ensure that the required minimum percentages of wood from sustainably managed forests, as required by Clause 5.2.1, will be actually present in the final ECNZ-licensed product. These are set out below.

Types of FSC claims\(^2\) on invoices or packing slips which can be used to demonstrate compliance with the SFM above requirements:

- FSC 100 %
- FSC Mix X % - provided the % meets the requirements in Clause 5.2.1 b), c) or d). – Transfer or Percentage system (rolling average or batch).
- FSC Mix Credit – only if the manufacturer can demonstrate that fibre from SFM is actually present in actual FSC material is used for the ECNZ products.
- FSC Recycled – provided it contains 100 % recycled material.

FSC Controlled Wood cannot be used to meet the FSC certified requirements in Clause 5.2.1 b), c) or d). does not demonstrate SFM.

Types of PEFC claims\(^3\) on invoices or packing slips which can be used to demonstrate compliance with the above SFM requirements:

- PEFC Certified – Physical Separation method.
- X % PEFC Certified – Average Percentage method, provided the % meets the requirements in Clause 5.2.1 b), c) or d).
- X % PEFC Certified – Volume Credit method – only if the manufacturer can demonstrate that fibre from SFM is actually present in actual PEFC certified material is used for the ECNZ products.
- PEFC Recycled – provided it contains 100 % recycled material with 50 % post-consumer material.

PEFC Controlled Sources material cannot be used to meet the PEFC certified requirements in Clause 5.2.1 b), c) or d). does not demonstrate SFM.

The following certification schemes will be accepted as equivalent to FSC or PEFC certification of SFM:

- Pengelolaan Hutan Produksi Lestari – Sustainable Production Forest Management certified (PHPL) (http://liu.dephut.go.id/).
- Sustainable Forest Management Plans, supported with Annual Logging Plans, that have been prepared and approved under the New Zealand Forests Act 1949 (amended in 1993). These Plans must be prepared in accordance with Standards and Guidelines for the

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\(^3\) PEFC Chain of Custody Certifications – The Key to Selling Certified Products. PEFC, 2012
Sustainable Management of Indigenous Forests\(^4\) and guidance for preparing Sustainable Management Plans and Annual Logging Plans\(^5\). Wood sourced from New Zealand indigenous forests covered by approved plans will be accepted as equivalent to FSC sustainably managed forest certification provided compliance with the approved plans is demonstrated through independent on-site assessment.

For any other schemes to be considered, the applicant will be required to provide detailed information that demonstrates the certification scheme is credible and equivalent. For examples of the type of information required, refer to the UK Central Point of Expertise on Timber Procurement (CPET) assessments of certification schemes available on www.CPET.org.uk.

**Intention**

The Trust will monitor reported fibre composition and procurement information with the intention of increasing the minimum percentages set in these criteria at future reviews when higher levels are attainable.

**Example calculation of SFM fibre in the furnish:**

**Furnish 1:**

<table>
<thead>
<tr>
<th>Pulps</th>
<th>Fibre Source</th>
<th>% of each pulp in the furnish</th>
<th>% SFM certified fibre in the pulp</th>
<th>% SFM certified fibre in the furnish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulp A</td>
<td>Plantations</td>
<td>10</td>
<td>0 *</td>
<td>0</td>
</tr>
<tr>
<td>Pulp B</td>
<td>Native Forests</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Pulp C</td>
<td>Plantations</td>
<td>70</td>
<td>65</td>
<td>45.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>65.5</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Fibre is legally harvested but does not have SFM certification

**Notes:**

The Trust’s rationale for the proposed changes to Clause 5.2.1 is discussed below.

**Removal of the Appendix B flow diagrams**

As a result of the proposed changes to the wording of Clause 5.2.1, the Trust also proposes to remove the flow diagrams from Appendix B as they depict the current wording of Clause 5.2.1 (which the Trust is proposing to replace), and do not reflect the proposed new wording.

**Recycled content**

The current wording of Clause 5.2.1 a) covers products with 100 % recycled content only, and requires that they contain at least 50 % post-consumer recycled content. At present, if a

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product contains less than 100 % recycled content it would be assessed under Clause 5.2.1 d). Clause 5.2.1 d) does not include a limit for a minimum amount of post-consumer recycled fibre, therefore, all of the recycled content could potentially be from pre-consumer sources.

The revised requirements in Clause 5.2.1 a) require that 50 % of any recycled content in the furnish be from post-consumer sources. This aligns better with equivalent criteria in EC-10 for Packaging and Paperboard and EC-12 for Newsprint and Derived Products:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Product Type</th>
<th>Recycled Content (%)</th>
<th>Post-consumer recycled (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC-10 (Packaging)</td>
<td>Mulch mat</td>
<td>85</td>
<td>70</td>
</tr>
<tr>
<td>EC-10 (Packaging)</td>
<td>Macerated products</td>
<td>100 for bulk</td>
<td>80 for bulk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 for liner</td>
<td>10 for liner</td>
</tr>
<tr>
<td>EC-10 (Packaging)</td>
<td>Moulded products</td>
<td>100</td>
<td>75</td>
</tr>
<tr>
<td>EC-10 (Packaging)</td>
<td>Paperboard</td>
<td>No minimum</td>
<td>No minimum</td>
</tr>
<tr>
<td>EC-12 (Newsprint)</td>
<td>Newsprint, periodicals and directories</td>
<td>70</td>
<td>35</td>
</tr>
<tr>
<td>EC-12 (Newsprint)</td>
<td>Inserts and flyers</td>
<td>100</td>
<td>50</td>
</tr>
</tbody>
</table>

Q1. Do you agree with the proposed change to the requirements for recycled content? If not, please advise what you would suggest as an alternative and why.

**Virgin fibre from native forests and plantations**

With the current wording of Clause 5.2.1 b, c and d, ECNZ assessors have reported to the Trust that it requires significant time during supervision assessments, and numerous discussions with licence holders and their suppliers, in order to obtain sufficient information to demonstrate compliance. ECNZ licence holders are also unsure of what information they should request from pulp suppliers, both as part of ECNZ supervision assessments, and also in order to check if potential new pulps can be used for ECNZ-licensed products.

The Trust is not proposing any changes to the requirements for fibre from native forests and plantations, but is proposing to reword them in order to clarify the three key requirements:

1. If any fibre in the furnish is from native forests, those forests must have SFM certification.
2. If any fibre in the furnish is from plantation forests, those plantations must be certified as legally harvested.
3. Each furnish must contain at least 50 % fibre from certified SFM sources. (If the furnish only contains fibre from native forests, then it would have 100 % from certified SFM sources as a result of point 1 above).
During the recent research work to reword Clause 5.2.1, the Trust consulted with FSC, PEFC and Nordic Ecolabelling, and is grateful for their insightful and supportive feedback. All three organisations confirmed that the criteria in Clause 5.2.1 requiring segregation of SFM fibre so as to ensure that each individual ECNZ-licensed sanitary paper product contains fibre from SFM sources (rather than relying on a credit-based approach) are an appropriate benchmark to set for identifying paper products that are significantly environmentally preferable over others in the market. The Trust also notes that assurance about the actual fibre content in end products has been identified in earlier reviews of this ECNZ specification as an important environmental issue and differentiator for stakeholders.

One organisation said that the “ECNZ requirements were very demanding and providing verifiable information will be difficult, especially in a continuous production process such as pulp production”. ECNZ Principle 4 (based on ISO 14024, Clause 5.5), states that ECNZ criteria should differentiate products based on significant environmental impacts. The Trust acknowledges that the requirements in Clause 5.2.1 are challenging, but believes that they do differentiate paper products on the significant environmental issue of SFM. An ECNZ licence indicates that each product meets criteria that have been set at a level that differentiate genuinely preferable product from others in the market. In contrast, SFM certification programmes such as FSC or PEFC are trying to achieve the sustainable management of all forests, and to promote worldwide demand for certified fibre in order to support responsible forest management. FSC and PEFC credit-based approaches work at this macro-scale objective of improving the sustainable management of all forests, but do not provide sufficient detail for a micro-level/product-specific objectives such an ensuring fibre from SFM is included in individual products.

ECNZ Principle no. 7 is based on ISO 14024, Clause 5.6.2, and requires that criteria must be set at an attainable level that can be measured. At present, all current ECNZ licence holders are able to meet the requirements for Clause 5.2.1 for at least some of their products. Nordic Ecolabelling allows tissue paper manufacturers to use credits in order to meet its requirements on SFM, but now requires the credits to be allocated to the each ecolabelled product. The ECNZ specification does not require credits to be assigned to end products, but does require material from SFM sources to be physically present in the final products.

The Trust is also proposing some small changes to the Verification Required and Notes sections of Clause 5.2.1 in an effort to help clarify the intention of the requirements and the types of information that may help to demonstrate compliance.

The Trust is not proposing any changes to the types of certifications it accepts as evidence of SFM or legal harvesting. In the future, the Trust may also be able to rely on licences issued as part of a Voluntary Partnership Agreement (VPA) under the EU FLEGT regulations as evidence of legal harvesting. VPAs are currently being implemented by the following countries: Cameroon, Central African Republic, Ghana, Liberia and the Republic of the Congo. VPAs are currently under negotiation with Côte d’Ivoire, Democratic Public of the Congo, Gabon, Guyana, Honduras, Laos, Malaysia, Thailand and Vietnam. Indonesia is the only country which
has completed the VPA process and it started issuing FLEGT licences on 15 November 2016. These licences are issued in accordance with Indonesia’s national timber legality assurance system called SVLK.

An example calculation has also been included in the Notes section. Chain-of-custody certification provides some assurances of the source of fibre, however, it covers processes for managing fibre in a mill. Calculation of the amount of SFM fibre in each individual furnish will still be required if the mill uses a credit system for managing SFM fibre.

**Q2. Do you agree with the rewording of the requirements for native forests and plantations? If not, please advise what you would suggest as an alternative and why.**

**Mixed fibre products**

The Trust is proposing to remove the criteria for mixed-fibre products, as the re-worded sub-clauses a, b and c already include requirements for fibres from different sources (plantation, native forests or waste wood). The Category Definition in Section 4 of this specification also governs what raw materials sources can be included in the finished products. An additional sub-clause which re-states requirements for mixed-fibre products is, therefore, unnecessary.

**Fibre Procurement and Reporting**

The Trust is proposing to remove the requirement to have and report on a procurement programme for sourcing fibre from SFM sources, given that it now understands the challenges around obtaining sufficient fibre from SFM sources to meet the current criteria. Feedback from licence holders, FSC and PEFC indicates that licence holders are unlikely to be able to significantly increase the amount of SFM fibre in their products in the near future. The Trust is of the view that the current requirements already differentiate environmentally preferable products in the New Zealand market.

**Q3. Do you agree with the proposal to remove the requirement and annual reporting on fibre sourcing? If not, please advise what you would suggest as an alternative and why.**

**Removal of the CPET reference from the Notes section**

The Trust is proposing to remove the reference to the UK Central Point of Expertise on Timber Procurement (CPET), as CPET was closed by the UK Department for Environment, Food and Rural Affairs (DEFRA) on 31 March 2016. It is not clear at this time if DEFRA (or another organisation) will replace CPET with another resource. FSC UK issued a statement on 8 April 2016 expressing its concern at the closure of CPET. Information provided by CPET on SFM programmes may be used by the Trust in the future, however, as it is unclear whether or not the CPET website will remain available, the Trust is proposing to remove specific reference to it in Clause 5.2.1.

For any SFM schemes which are not specifically listed in the notes which follow Clause 5.2.1, the Trust will establish the credibility and equivalence of those schemes on a case by case
This may include details from CPET. Details of the assessment will be discussed with the licence holder/applicant who wishes to use fibre certified by that scheme.

Removal of the section entitled Intention

The Trust is proposing to remove the “Intention” wording, given that it now understands that the current criteria are set at a level which provides significant differentiation of environmentally preferable products in the New Zealand market.

5.2.2 Bamboo

Criteria

a A minimum of 50% by weight of the bamboo in the sanitary paper product must be from plantations or forests certified as SFM under the Forest Stewardship Council (FSC) or Programme for the Endorsement of Forest Certification schemes (PEFC), or equivalent schemes.

b The ECNZ licence applicant/holder must ensure that all uncertified bamboo comes from legal sources. Bamboo raw material must not be derived from:
   i. protected areas, or areas that are under investigation as to their protection status;
   ii. areas where ownership or rights of exploitation are unclear; or
   iii. illegally harvested fibre.

   In addition, the bamboo management must not harm:
   iv. natural woodland, biodiversity, special ecosystems and important ecological functions; and
   v. social and cultural preservation values.

c Bamboo fibre must not come from bamboo species that appear on the Convention on International Trade in Endangered Species (CITES) list.

d Companies must:
   i. maintain records of the certification of bamboo fibre used in licensed products; and
   ii. have, implement and report on an ongoing programme to review options and increase FSC or PEFC or equivalent SFM-certified content in ECNZ licensed products.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. The statement shall be supported by documentation (as relevant):

- recording the supplier, nature and geographical source of all bamboo inputs to the sanitary paper product;
- including certificates or other evidence on forest management, SFM certification and chain of custody;
- describing management systems in place to ensure that these requirements are consistently met;
• describing the programme to review options and increase FSC or PEFC or equivalent SFM-certified bamboo content in ECNZ licensed products; and
• including annual reports to ECNZ on this procurement programme.

Notes:

Legal harvesting:
The following certification schemes will be accepted as sources of information to demonstrate legal harvesting, where SFM certificates and chain of custody evidence is available for virgin fibre sources:
• Forest Stewardship Council – “Certified” or “Controlled Wood”
• Programme for the Endorsement of Forest Certification (PEFC)6 (http://www.pefc.org/) “Certified” or “Controlled Sources”.

Sustainable Forest Management (SFM):
The FSC and PEFC certification schemes each have a range of certificates/labels. Some of these allow for fibre from certified sustainably managed plantations or forests to be mixed with non-certified fibre. Under FSC Mixed Credit or PEFC Volume Credit methods, fibre or products associated with the certification claim or label may or may not actually contain fibre from the certified sustainably managed source. Certifications accepted by The Trust are those which will ensure that the required minimum percentages of fibre from sustainably managed bamboo sources, as required by Clause 5.2.2 a), will be actually present in the final ECNZ-licensed product. These are set out below.

Types of FSC claims7 which can be used to demonstrate compliance with Clause 5.2.2 a):
• FSC 100 %
• FSC Mix X % - provided the % is > 50 %.
• FSC Mix Credit – only if the manufacturer can demonstrate that actual FSC material is used for the ECNZ products.

FSC Controlled Wood cannot be used to meet the SFM requirements in Clause 5.2.2 a).

Types of PEFC claims8 which can be used to demonstrate compliance with Clause 5.2.2 a):
• PEFC Certified – Physical Separation method.
• X % PEFC Certified – Average Percentage method, provided the % is > 50 %.
• X % PEFC Certified – Volume Credit method – only if the manufacturer can demonstrate that actual PEFC certified material is used for the ECNZ products.

PEFC Controlled Sources material cannot be used to meet the SFM requirements in Clause 5.2.2 a).

For any other schemes, such as programmes run by the International Network for Bamboo and Ratten (INBAR) to be considered, the applicant will be required to provide detailed information that demonstrates the certification scheme is credible and equivalent. For examples of the type

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6 The Australian Forest Certification Scheme (AFCS/AFS) is recognised as part of PEFC.
8 PEFC Chain of Custody Certifications – The Key to Selling Certified Products. PEFC, 2012
of information required, refer to the UK Central Point of Expertise on Timber Procurement (CPET) assessments of certification schemes available on www.CPET.org.uk.

The Trust intends to monitor levels of bamboo certification with the expectation that the minimum percentage requirements will be increased when a higher levels are attainable.

### 5.2.3 Other plant-sourced fibre

These criteria apply to hemp, kenaf, flax, cotton, linen and waste left over from harvesting an existing agricultural crop (e.g. wheat straw, rice straw, seed flax straw, sorghum stalks, corn stalks, sugar cane bagasse, and rye seed grass straw).

Wood fibre and bamboo are excluded from these criteria as they are addressed in Clauses 5.2.1 and 5.2.2, respectively.

#### Criteria

The ECNZ licence applicant/holder shall:

a. ensure the traceability of all fibre raw materials;

b. have a documented procedure regarding procurement of sustainable fibre raw material;

c. ensure that all fibre raw materials come from legal sources;

d. ensure fibre raw material is not derived from:
   
   i. protected areas, or areas that are under investigation as to their protection status;
   
   ii. areas where ownership or rights of exploitation are unclear; or
   
   iii. illegally harvested fibre.

In addition, the fibre management must not harm:

iv. natural woodland, biodiversity, special ecosystems and important ecological functions; and

v. social and cultural preservation values.

#### Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. The statement shall be supported by documentation (as relevant):

- traceability system for all fibre raw materials, e.g. a Chain of Custody certificate;
- a documented procedure from the ECNZ licence applicant/holder that describes sustainable procurement of all fibre used; and
- certification, harvesting permits or other information to demonstrate that the fibre is legally harvested and does not come from protected areas or areas where ownership rights are in dispute.

### 5.3 Hazardous substances

#### 5.3.1 General hazardous substances

#### Criteria

This document is for consultation only. Any final published criteria may differ from those proposed here. The proposed criteria and supporting explanatory information have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme’s life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.
a. Substances which are classified as toxic, ecotoxic, carcinogenic, mutagenic or toxic to reproduction in accordance with Table 4 (Appendix C) shall not be added to the paper product or used during the production process.

b. In addition to a) above, softeners, lotions, fragrance and any additives intended to be present in the finished product must not be classified as respiratory or skin sensitisers in accordance with Table 4 (Appendix B).

The following are exempt from this requirement:

<table>
<thead>
<tr>
<th>Inorganic chemicals</th>
<th>Chemicals that are 100 % inorganic (e.g. NaOH, NaClO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biocides</td>
<td>Exempt from the ban on ecotoxic substances only</td>
</tr>
<tr>
<td></td>
<td>(Additional requirements for biocides are in Clause 5.3.5)</td>
</tr>
<tr>
<td>Foam inhibitors</td>
<td>Exempt from the ban on ecotoxic substances only</td>
</tr>
<tr>
<td></td>
<td>(Additional requirements for foam inhibitors are in Clause 5.3.4)</td>
</tr>
<tr>
<td>Softeners</td>
<td>Exempt from the ban on ecotoxic substances only</td>
</tr>
<tr>
<td>Wet strength agents</td>
<td>Containing chloro-organic substances epichlorohydrin (ECH), 1,3-dichloro-2-propanol (DCP) and 3-monochloro-1,2-propanediol (MCPD) are exempt from Clause 5.3.1</td>
</tr>
<tr>
<td></td>
<td>(Additional requirements for wet strength agents are in Clause 5.3.6)</td>
</tr>
<tr>
<td>Peracetic acid (bleaching agent)</td>
<td>Exempt from Clause 5.3.1.</td>
</tr>
<tr>
<td>Cationic polymers and dyes</td>
<td>Exempt from the ban on ecotoxic substances, if the classification is due to the cationic charge.</td>
</tr>
<tr>
<td>Low use chemicals</td>
<td>Chemicals whose consumption is less than 0.05 kg/tonne pulp produced (0.005 %) at the pulp mill or per paper produced at the paper mill are exempt from Clause 5.3.1.</td>
</tr>
</tbody>
</table>

**Verification Required**

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by documentation, including:

- identifying hazardous substances used in materials and production processes (including CAS numbers and Safety Data Sheets (SDS), where available) identifying the classifications that apply to these substances;
- compliance with a) may be demonstrated by providing data indicating that the substance does not have any of the classifications (or combinations thereof) listed in Table 4 (Appendix C) for toxins, ecotoxins, carcinogens, mutagens and reproductive toxins; and
• compliance with b) may be demonstrated by providing data indicating that the substance does not have any of the classifications (or combinations thereof) listed in Table 4 (Appendix C) for respiratory or skin sensitisers.

Notes

The requirements above apply to all production chemicals (but not constituent substances), except where specifically exempt.

Production chemicals include:
• chemicals additives - used to give paper certain characteristics or qualities and usually retained by cellulose fibres.
• auxiliary chemicals – used to increase efficiency and simplify production processes and often released into waste water.
• process chemicals – used to maintain pulp and paper production equipment.

5.3.2 Bleaches and complexing agents

Criteria

a Chlorine gas may not be used as a bleaching agent.
b Ethylenediamine tetraacetic acid (EDTA) may not be used.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by relevant production and quality control documentation.

Notes

It is accepted that recycled fibres may have been bleached with chlorine gas during their previous lifecycle.

Elemental Chlorine bleaching is prohibited by 5.3.2 a).

5.3.3 Dyes, pigments and coatings added to the products

Criteria

a No dyes, pigments or coatings shall be used that contain phthalates, mercury, lead, copper, chromium, nickel, aluminium or cadmium as constituent parts. Copper phthalocyanine dyes or pigments may, however, be used.
b The levels of ionic impurities in the dyes and pigments used shall not exceed the following: Ag 100 ppm; As 50 ppm; Ba 100 ppm; Cd 20 ppm; Co 500 ppm; Cr 100 ppm; Cu 250 ppm; Fe 2,500 ppm; Hg 4 ppm; Mn 1,000 ppm; Ni 200 ppm; Pb 100 ppm; Se 20 ppm; Sb 50 ppm; Zn 1,500 ppm.
c Acrylamide monomer must not be present as a constituent part of coatings.
Azo dyes or pigments which may release one of the amines listed in Table 1 must not be used.

Table 1

<table>
<thead>
<tr>
<th>Amine</th>
<th>CAS-number</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-amino-biphenyl</td>
<td>92-67-1</td>
</tr>
<tr>
<td>Benzidine</td>
<td>92-87-5</td>
</tr>
<tr>
<td>4-chloro-toluidine</td>
<td>95-69-2</td>
</tr>
<tr>
<td>2-naphthylamine</td>
<td>91-59-8</td>
</tr>
<tr>
<td>o-aminoazo-toluene</td>
<td>97-56-3</td>
</tr>
<tr>
<td>2-amino-4-nitro-toluene</td>
<td>99-55-8</td>
</tr>
<tr>
<td>p-chloroaniline</td>
<td>106-47-8</td>
</tr>
<tr>
<td>2,4-diamino-anisol</td>
<td>615-05-4</td>
</tr>
<tr>
<td>4,4'-diamino-diphenylmethane</td>
<td>101-77-9</td>
</tr>
<tr>
<td>3,3'-dichlorobenzidine</td>
<td>91-94-1</td>
</tr>
<tr>
<td>3,3'-dimethoxybenzidine</td>
<td>119-90-4</td>
</tr>
<tr>
<td>3,3'-dimethylbenzidine</td>
<td>119-93-7</td>
</tr>
<tr>
<td>3,3'-dimethyl-4,4'-diamino-diphenylmethane</td>
<td>838-88-0</td>
</tr>
<tr>
<td>p-cresidine</td>
<td>120-71-8</td>
</tr>
<tr>
<td>4,4'-methylenebis(2-chloroaniline)</td>
<td>101-14-4</td>
</tr>
<tr>
<td>4,4'-oxydianiline</td>
<td>101-80-4</td>
</tr>
<tr>
<td>4,4'-thiodianiline</td>
<td>139-65-1</td>
</tr>
<tr>
<td>o-toluidine</td>
<td>95-53-4</td>
</tr>
<tr>
<td>2,4-toluilenediamine</td>
<td>95-80-7</td>
</tr>
<tr>
<td>2,4,5-trimethylaniline</td>
<td>137-17-7</td>
</tr>
<tr>
<td>o-anisidinedimethoxyaniline</td>
<td>90-04-0</td>
</tr>
<tr>
<td>2,4-xylidine</td>
<td>95-68-1</td>
</tr>
<tr>
<td>4,6 – xylidine</td>
<td>87-62-7</td>
</tr>
<tr>
<td>4-animoazobenzene</td>
<td>60-09-3</td>
</tr>
</tbody>
</table>

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the

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applicant company/licence holder. This statement shall be supported by documentation (as relevant) that:

- identifies the dyes, pigments and coatings used;
- SDS (safety data sheets) or other information to demonstrate the level of impurities in dyes and pigments; and
- demonstrates that no acrylamide monomer is used.

### 5.3.4 Surfactants and foam inhibitors

**Criteria**

a. Where surfactants are used for de-inking recycled paper input, these surfactants shall be readily biodegradable.

b. Foam inhibitors used in manufacturing processes must meet either (i) or (ii) below:
   i. not be assigned at the time of assessment any of the ecotoxicity classifications in Table 4 (Appendix C);
   ii. 95 % by weight of the constituent substances that have a foam inhibiting or retarding effect must be either readily or ultimately biodegradable.

**Verification Required**

Conformance with these requirements shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by documentation (as relevant) that:

- identifies any surfactants or foam inhibitors used;
- SDS (safety data sheets); and
- test reports provided by laboratories competent to perform the relevant tests.

Test methods shall be those nominated below or equivalents. If an equivalent method is to be used, Environmental Choice may require details of the method and its validation.

**Test Methods**

The surfactant must either meet the requirement for “readily biodegradable” when determined using one of the five methods described in the OECD Guidelines for testing of chemicals, Test Guidelines 301A-301E or achieve a biodegradability of at least 80 % when tested by OECD method published in the OECD technical paper report of 11 June 1976, or as listed in the Danish Environmental Protection Agency report “Environmental Health Assessment of Substances in Household Detergents and Cosmetic Detergent Products” (2001), or equivalent test. Alternatively, the foam inhibitor may meet the requirement for ultimate biodegradability in accordance with the OECD Test Guidelines 302A-302C.

### 5.3.5 Cleaning solvents and biocides

**Criteria**
a Solvents used in the cleaning of production/manufacturing equipment must not contain halogenated hydrocarbons, alkylphenol ethoxylates (APEOs) or other alkylphenol derivatives as constituent parts.

b The active components in biocides or biostatic agents used to counter slime-forming in pulp and paper production shall not bioaccumulate or be potentially bio-accumulative.

**Verification Required**

Conformance with these requirements shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by documentation (as relevant) that:

- identifies the cleaning solvents and biocides used;
- SDS (safety data sheets) which show that the biocide is not bioaccumulative or potentially bioaccumulative. A substance is considered to be potentially bioaccumulative if the Log Kow (log octanol/water partition coefficient) ≥3.0 (unless the experimentally determined BCF ≤100; and
- test reports for bioaccumulability of biocides or biostatic agents and/or data sheets in accordance with European Union Directive 91/155/EEC, or equivalent standard, with sufficient data and references to test methods.

**5.3.6 Wet strength agents**

**Criteria**

Wet strength agents must not contain more than 7000 ppm (0.7 %) of the chloro-organic substances epichlorohydrin (ECH), 1,3-dichloro-2-propanol (DCP) and 3-monochloro-1,2-propanediol (MCPD), calculated as the sum of the three components and related to the dry content of the wet strength agent.

The above limit includes free ECH, DCP and MCPD only and does not include epichlorohydrin polymer.

**Verification Required**

Conformance with this requirement shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by information (including SDS) on the wet-strength agents used and production information to demonstrate that the limit is being met.

**5.4 Process emissions**

**5.4.1 Emissions of CO2**

**Criteria**

The combined emissions of CO2 from both pulp and paper production (apportioned to the product being licensed) shall not exceed 1100 1500 kg CO2/tonne paper.

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Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by documentation that includes:

- test reports;
- calculations and
- production and quality control information.

Test reports must be from laboratories competent to perform the relevant tests. If an equivalent method is to be used, The Trust may require details of the method and its validation.

Notes

- The above limits include emissions from purchased electricity and use of fossil fuels, but exclude emissions from renewable sources. Renewable energy sources means renewable non-fossil energy sources, e.g. wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogas.
- For paper comprising a mixture of recycled, chemical and mechanical pulp, a weighted limit should be calculated, based on the proportion of each pulp type used. The total pulp emissions from the pulps should then be added to that from the paper making.
- For recycled fibre sources, emissions arising from the original production of recycled paper shall not be included in the calculations.
- CO₂ from surplus energy sold as electricity, steam or heat may be subtracted from the total CO₂ emissions.
- The amount of energy from renewable sources, purchased and used for the production processes, should not be included in the calculation.
- The energy used for converting the tissue paper into a product and transport in distributing this product, pulps or other raw materials shall not be included in the calculations.

Notes:
The current limit of 1100 kg CO₂/ADT comes from the Nordic Ecolabelling specification for Sanitary Paper. During recent supervision assessments, ECNZ Assessors have reported to the Trust that it may be not possible for licence holders to consistently meet the CO₂ limit year on year. Some licence holders make small changes to the proportions of different pulps in their furnish in order to meet the limit, however, there is little evidence that these small changes to the furnish composition result in any real environmental benefit. In addition, in many cases, the majority of CO₂ emissions associated with sanitary paper come from the paper mill not the pulp mills. ECNZ licence holders may be able to choose from a number of different pulps in order to meet the CO₂ limit, but cannot change the paper mill used as readily. Changes to the fuel mix used at a paper mill requires significant capital investment and time to implement.

The Trust has researched further the basis of the 1100 kg CO₂/ADT limit, and CO₂ requirements included in other GEN-member specifications for paper products. There are no specific limits for CO₂ in the sanitary/tissue paper specifications from the Canadian, US, Korean, Japanese or Hong Kong programmes. Criteria are not available in English from the Thai, Malaysian, German Chinese or Indonesian ecolabelling programmes, so we were unable to determine if sanitary
paper product specifications from these GEN-members contain requirements on CO₂ emissions. CO₂ limits from the ECNZ, Nordic Ecolabelling, EU and GECA specifications are summarised below.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Limits (kg CO₂/ADT)</td>
<td>1100</td>
<td>900 (chemical pulp)</td>
<td>1500</td>
<td>1100</td>
<td>900 (chemical pulp)</td>
<td>900 (chemical pulp)</td>
<td>1500</td>
<td>1000 (for integrated mills)</td>
</tr>
<tr>
<td></td>
<td>1500 (mechanical pulp)</td>
<td></td>
<td></td>
<td>1600 (mechanical pulp)</td>
<td>1500 (mechanical pulp)</td>
<td></td>
<td>1100 (for non-integrated mills)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1000 (de-inked pulp)</td>
<td></td>
<td>1000 (mechanical pulp)</td>
<td></td>
<td>1000 (de-inked pulp)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conversion factor for grid electricity</td>
<td>None given</td>
<td>None given</td>
<td>None given</td>
<td>233</td>
<td>385</td>
<td>None given</td>
<td>400</td>
<td>400</td>
</tr>
</tbody>
</table>

Although the current version of the ECNZ Sanitary Paper specification was notified with separate limits for chemical and mechanical pulp, the Trust now understands that this is not appropriate for sanitary paper products as only chemical pulp is used to manufacture sanitary paper. In addition, the Nordic Ecolabelling background document for its paper specifications⁹, states that the 900 kg CO₂/ADT limit for chemical pulp is too low for non-integrated mills, and most sanitary paper is manufactured at separate pulp and paper mills (as a combination of different pulps are used). Hence the Nordic Ecolabelling programme decided on a higher limit of 1100 kg CO₂/ADT for its tissue paper specification. Further consultation with Nordic Ecolabelling has revealed that pulps for products licensed by Nordic Ecolabelling come from Europe and South America where emissions of CO₂ are reportedly lower than for many other parts of the world¹⁰. Pulp for ECNZ-licensed products comes from a much wider area, including Europe and South America as well as North America and Asia.

The Trust has also noted that the Nordic Ecolabelling limit of 1100 kg CO₂/ADT is based on a conversion factor for grid electricity of 233 g CO₂/MJ, which is equivalent to propane. Conversion factors for electricity will vary widely between different countries, depending on the fuel mix used to generate the electricity, however a figure of around 400 g CO₂/MJ is common in many countries. The Nordic Ecolabelling background document states that 385 g CO₂/kWh is the average for European electricity generation, and the EU Ecolabel is currently consulting on a proposal to reduce the emission factor for grid electricity from 400 g CO₂/MJ to

---

380 g CO₂/MJ\textsuperscript{11}. The mix of fuel used for generation of grid electricity is beyond the influence of the pulp or paper manufacturer, and the EU Ecolabel is also currently consulting on whether some flexibility should be afforded to EU member states that rely on more carbon intensive fuels\textsuperscript{11}. Changes to the fuel mix for grid electricity requires massive investment by a country and are largely being driven by climate change agreements and Emission Trading Schemes (ETS).

Based on the further research completed by the Trust (summarised above), the Trust is now of the view that the criteria should revert to the previous limit of 1500 kg CO₂/ADT. The Trust sees this to be appropriate as pulp and paper mills used to manufacture sanitary paper for the New Zealand market are not integrated, and are based all over the world with huge differences in the fuel sources used to generate grid electricity.

Q4: Do you agree with the proposal to revert to the former limit of 1500 kg CO₂/ADT? If not, please explain why not and what you believe an appropriate limit to be for sanitary paper products available in the New Zealand market.

### 5.4.2 Emissions of AOX

**Criteria**

The weighted average value of AOX released from pulps used must not exceed:

- a 0.17 kg per tonne of paper produced; and
- b 0.25 kg per tonne for each individual pulp.

**Verification Required**

Conformance with this requirement shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by documentation that includes:

- test reports;
- calculations and
- production and quality control information.

Test reports must be from laboratories competent to perform the relevant tests. If an equivalent method is to be used, The Trust may require details of the method and its validation.

**Notes**

The requirements for AOX are not applicable to processes which do not use chlorine for bleaching the pulp.

**Test method**

AOX ISO 9562, or an equivalent test method, should be used.

5.4.3 Other emissions to air and water

This Clause covers the following emissions:
- emissions to air of sulphur (S) and nitrogen oxides (NO\textsubscript{x}); and
- emissions to water of Chemical Oxygen Demand (COD) and phosphorus (P).

Criteria

The emissions to air and/or water from the pulp and paper production shall be expressed in terms of points (P\textsubscript{COD}, P\textsubscript{S}, P\textsubscript{P}, P\textsubscript{NOx}), according to the following:

a) \( P_{\text{total}} = P_{\text{COD}} + P_{\text{S}} + P_{\text{P}} + P_{\text{NOx}} \) must not exceed 4.0; and
b) The individual point score for \( P_{\text{COD}}, P_{\text{S}}, P_{\text{P}}, P_{\text{NOx}} \) must not exceed 1.5.

Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by documentation that includes:
- test reports;
- calculations and
- production and quality control information.

Test reports must be from laboratories competent to perform the relevant tests. If an equivalent method is to be used, The Trust may require details of the method and its validation.

Notes

- Emissions should be calculated in accordance with the example below for COD.
- For each pulp “i” used, the measured COD emissions (COD\textsubscript{pulp, i}) should be multiplied by the proportion of pulp in the furnish (pulp\textsubscript{i}, in ADt of pulp), and added together with the results for the other pulps. The total emissions for the pulps should then be added to the measured emissions from the paper production (COD\textsubscript{papermachine}) to give a total COD emission (COD\textsubscript{total}).
- The proportional COD reference value for each pulp should be calculated in the same manner, and added together with the reference value for the paper production to give a total COD reference value (COD\textsubscript{ref total}).
- The total COD emissions should then be divided by the total COD reference value as follows:

\[
P_{\text{COD}} = \frac{COD_{\text{total}}}{COD_{\text{ref total}}} = \frac{\sum_{i=1}^{n}(pulp_i \times COD_{\text{pulp, i}}) + COD_{\text{papermachine}}}{\sum_{i=1}^{n}(pulp_i \times COD_{\text{ref pulp, i}}) + COD_{\text{ref papermachine}}}
\]
Emissions from the pulp and paper mills should be apportioned to the pulp/paper included in the ECNZ-licensed products before they are included in the equation above.

Emissions from surplus energy that is sold on in the form of electricity, steam or heat, can be subtracted from the total emissions for S and NOx.

In the case of co-generation of heat and electricity at the same plant, emissions of S and NOx from electricity generation can be deducted from the total emissions in order to avoid double counting. The following equation can be used to calculate the share of emissions from the electricity generation:

\[
\frac{2 \times MW_{\text{electricity}}}{(2 \times MW_{\text{electricity}}) + MW_{\text{heat}}}
\]

Where “electricity” and “heat” are the net values delivered from the power plant to the pulp/paper production, and do not include the working electricity/heat used at the power plant to generate the energy.

Emissions should be measured as kg/tonne 90 % pulp, as ADt pulp usually contains 90 % solids and 10 % water.

Results should be reported as:
- COD: kg O2/tonne 90 % pulp or paper
- P: kg P/tonne 90 % pulp or paper
- S: kg S/tonne 90 % pulp or paper
- NOx: kg NO2/tonne 90 % pulp or paper

If a pulp or paper mill does not currently test for phosphorus emissions, the ECNZ assessor may request additional information in order to determine if phosphorus is a significant pollutant from that mill, before requesting that the mill sample and test effluent for phosphorus. This information may include:
- SDS for chemicals used in the mill which contain phosphorus (e.g. defoamers, water conditioners, scale inhibitors and complexing agents);
- details of effluent treatment (by the mill or local authority) and whether or not it includes treatment to reduce phosphorus, e.g. activated sludge treatment;
- a description of the receiving environment that the mill or waste water treatment facility discharges to; and

<table>
<thead>
<tr>
<th></th>
<th>COD ref</th>
<th>S ref</th>
<th>NOx ref</th>
<th>P ref</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleached chemical pulp (sulphate (Kraft) and other pulps)</td>
<td>18.0</td>
<td>0.6</td>
<td>1.6</td>
<td>0.045*</td>
</tr>
<tr>
<td>Bleached chemical pulp (sulphite)</td>
<td>25.0</td>
<td>0.6</td>
<td>1.6</td>
<td>0.045</td>
</tr>
<tr>
<td>Unbeached chemical pulp</td>
<td>10.0</td>
<td>0.6</td>
<td>1.6</td>
<td>0.04</td>
</tr>
<tr>
<td>CTMP</td>
<td>15.0</td>
<td>0.2</td>
<td>0.3</td>
<td>0.01</td>
</tr>
<tr>
<td>TMP/groundwood</td>
<td>3.0</td>
<td>0.2</td>
<td>0.3</td>
<td>0.01</td>
</tr>
<tr>
<td>DIP/recycled fibre</td>
<td>2.0</td>
<td>0.2</td>
<td>0.3</td>
<td>0.01</td>
</tr>
<tr>
<td>Tissue paper</td>
<td>2.0</td>
<td>0.3</td>
<td>0.5</td>
<td>0.01</td>
</tr>
</tbody>
</table>

* Exemption from this level, up to a level of 0.1 shall be given were it can be demonstrated that the higher level of P is due to P naturally occurring in the wood pulp, e.g. eucalyptus.
Test Methods

The following test methods, or equivalents, should be used:

- For COD – ISO 6060 2nd ed. 1989
- For P – EN ISO 6878
- For S(oxid) – EPA no. 8, S(red.) – EPA no. 16A. The S emissions related to the heat energy generation from oil, coal and other external fuels with known S content may be calculated instead of measured.
- For NOx – ISO 11564

Notes:

During supervision assessments, the Trust has noted that some licence holders have difficulty in obtaining information about phosphorus emissions from the pulp and paper mills. Pulp and paper mills generally monitor emissions of COD, sulphur and NOx, but many appear not to monitor emissions of phosphorus. This is likely to be because phosphorus is not a significant pollutant in all receiving waters, therefore, there are no drivers for the mills to test for it.

Phosphorus emissions from pulp and paper mills can come from the wood fibres and from certain process chemicals (e.g. defoamers, water conditioners, scale inhibitors and complexing agents). Certain types of wood fibre, such as eucalyptus, contain much higher quantities of phosphorus than others.

The criteria in Clause 5.4.3 are derived from the Nordic Ecolabelling and EU Ecolabel paper specifications. Phosphorus and nitrogen are major contributors to eutrophication of water courses in Europe. The Nordic Ecolabelling and EU Ecolabel programmes have set limits for phosphorus emissions but have chosen not the set criteria for emissions of nitrogen to water, as the pulp and paper industry is a very small emitter of nitrogen in comparison to agriculture and other industry in Europe. Likewise, in some countries, contribution of phosphorus from agricultural and forested land outweighs that from effluent, therefore, there may be little environmental benefit from limiting emissions of phosphorus from pulp and paper mills.

In order to aid ECNZ Assessors and licence holders/applicants, the Trust is proposing to add another guidance note to Clause 5.4.3. This will allow ECNZ Assessors to determine if there are likely to be emissions of phosphorus from the chemicals used at the mill; if phosphorus is released to the environment or sufficiently removed by wastewater treatment; and the sensitivity of the water environment which receives effluent from the mill. If sufficient information can be obtained, the ECNZ Assessor may be able to conclude whether or not phosphorus is a significant pollutant from that mill and if testing is required. A similar approach is currently taken for Clause 5.4.2 whereby ECNZ Assessors do not request test results for AOX if the pulp mills can demonstrate that chlorine is not used during the bleaching process.

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Q5. Do you agree with the proposed additional wording in the Notes section? If not, please advise what you would suggest as an alternative and why.

5.5 Energy management

Criteria

a The paper manufacturer, paper convertor and licence applicant/holder must have effective energy management policies and procedures and/or an energy management programme.

b Licence holders must report annually to The Trust on their energy management, this should include:

i. total energy use;

ii. breakdown of total energy use to types of energy used;

iii. energy use related to production;

iv. initiatives taken to reduce energy use and improve energy efficiency; and

v. initiatives taken to calculate and reduce CO₂ emissions associated with energy use.

The annual report shall also include information on energy management during pulp and paper production and/or whole of life energy use, where that information is available from the pulp or paper manufacturers.

Verification Required

Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be accompanied by documentation that:

- describes the energy management policies, procedures and programmes; and
- includes annual reports to The Trust on energy use and management.

Notes:

Similar requirements to Clause 5.5 on energy management are included in all ECNZ specifications. The Trust is proposing some small revisions to Clause 5.5 to clarify that it applies to reporting on the licence holder’s energy management policies and procedures, rather than those of the pulp and paper manufacturers. All current ECNZ licence holders for sanitary paper products are paper convertors, so this process has been included in Clause 5.5.

The Trust is aware that applicants for products manufactured at pulp and paper mills outside of New Zealand may have had difficulty obtaining reliable information on energy management during manufacture, except where they are part of a vertically integrated supply chain with strong corporate initiatives on energy use or carbon emissions.

Where applicants have been able to source information on energy management initiatives during production and distribution, the Trust has seen improvements in energy use/CO₂ emissions, and energy management. The Trust proposes to clarify that this information is to be included in annual reporting, if it is available.
Q6. Do you agree that Clause 5.5 should be revised to clarify that it applies to the licence holder’s energy management? If not, please advise what you would suggest as an alternative and why.

Q7: Do you agree it is appropriate to change Part (b) to clarify that licence holders only report energy management information from the pulp and paper manufacturers if it is available? If not, please advise what you would suggest as an alternative and why.

5.6 Packaging requirements

Criteria

a All plastic packaging must be made of plastics that are able to be recycled in New Zealand (or the country to which the product is exported and sold).

b Packaging must not be impregnated, labelled, coated or otherwise treated in a manner, which would prevent recycling (i.e. PVC sleeves, metallic labels).

c Information shall be provided to The Trust at application and thereafter reported annually on PVC and/or phthalates used in the packaging. This should include information from production records and/or suppliers on:

i. the percentages by weight of recycled and virgin PVC;

ii. the particular production processes (membrane cells, non asbestos diaphragms, modified diaphragms, graphite anodes, mercury cells, closed-lid production etc) used to produce chlorine and VCM for the PVC being used in the packaging for ECNZ-licensed products (including the locations of the production);

iii. information, where available, on waste disposal, wastewater treatment and emissions to air (occupational exposure, emissions from the factory and emissions from the final PVC resin);

iv. information on any Environmental Management System (EMS) for the production process, including requirements for waste, water, air and product-related requirements;

v. the types of stabilisers used;

vi. the types and amounts of any phthalate plasticisers present in recycled content of the PVC (if that information is available) and/or added when manufacturing PVC;

vii. research and initiatives implemented on substitutes for phthalates identified as of concern by regulators; and

viii. any product stewardship arrangements for the packaging.

Note: Regulators have identified the following phthalates to be of concern – dibutyl phthalate (DBP), disobutyl phthalate (DIBP), butyl benzyl phthalate (BBP), di-n-pentyl phthalate (DnPP), di(2-ethylhexyl) phthalate (DEHP), di-n-octyl phthalate (DnOP), diisononyl phthalate (DINP) and diisodecyl phthalate (DIDP).

d Primary cardboard packaging shall consist of any combination of:

i. recycled content

AND/OR

ii. waste wood or virgin fibre from native forests that are certified under the Forest Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification (PEFC) as sustainably managed (or equivalent certification).
Please see the notes section of Clause 5.2.1 for details of acceptable certifications.

AND/OR

iii. waste wood or virgin fibre from plantations (including farm forests or woodlots) which have been legally harvested.

Please see the notes section of Clause 5.2.1 for details of acceptable certifications.

Verification Required

Conformance with these criteria shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported with the following documentation and evidence.

- Conformance with criteria (a) shall be supported by documentation verifying the packaging is recyclable.
- Conformance with criteria (b) shall be demonstrated by providing samples or descriptions of all plastic packaging, and information on its constituent parts and recyclability.
- Conformance with criteria (c) shall be demonstrated by providing initial and ongoing annual reports to The Trust on PVC and plasticisers used. This should include as much of the available information requested in (c) as possible.
- Conformance with criteria (d) shall be supported by documentation from the packaging manufacturer verifying the source of all fibre in the cardboard packaging or providing evidence that the packaging is covered by an Environmental Choice New Zealand licence.

5.7 Waste management

Criteria

a. The paper manufacturer(s), paper convertor and licence applicant/holder must have effective waste management policies and procedures and/or a waste management programme.

b. Licence holders must report annually to The Trust on their waste management, this should include:
   i. quantities and types of waste recovered for reuse internally and externally;
   ii. quantities and types of waste recycled internally and externally;
   iii. quantities and types of waste disposed of to landfill;
   iv. quantities and types of waste burned internally for energy recovery;
   v. waste generation related to production; and
   vi. initiatives taken to reduce waste generation and improve recovery/recycling of waste.

The annual report shall also include information on waste management during pulp and paper production, where that information is available from the pulp or paper manufacturers.

Verification Required
Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be accompanied by documentation that:

- describes the waste management policies, procedures and programmes; and
- includes annual reports to The Trust on waste generation, minimisation and management.

Notes:
Similar requirements to Clause 5.7 on waste management are included in all ECNZ specifications. The Trust is proposing some small revisions to Clause 5.7 to clarify that it applies to reporting on the licence holder’s waste management policies and procedures, rather than those of the pulp and paper manufacturers. All current ECNZ licence holders for sanitary paper products are paper converters, so this process has been included in Clause 5.7.

The Trust is aware that applicants for products manufactured at pulp and paper mills outside of New Zealand may have had difficulty obtaining reliable information on waste management during manufacture, except where they are part of a vertically integrated supply chain with strong corporate initiatives on waste management.

Where applicants have been able to source information on waste management initiatives during production and distribution, the Trust has seen improvements in waste reduction, recyclability, and waste management. The Trust proposes to clarify that this information is to be included in annual reporting, if it is available.

Q8. Do you agree that Clause 5.7 should be revised to clarify that it applies to the licence holder’s waste management? If not, please explain what you would suggest as an alternative and why.

Q9. Do you agree it is appropriate to change Part (b) to clarify that licence holders only report waste management information from pulp and paper manufacturers if it is available? If not, please explain what you would suggest as an alternative and why.

6 Product characteristics

6.1 Fitness for purpose

Criteria

The product shall be fit for its intended use and conform, as appropriate, to relevant product performance standards.

Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by documentation:

- identifying the applicable standards and or consumer/customer requirements; and
- demonstrating how compliance is monitored and maintained.
6.2 Product safety for kitchen towels and napkins

Criteria

The licence holder should demonstrate that each furnish used for kitchen towels or napkins complies with the following:

a. Products made from recycled fibres or mixtures of recycled and virgin fibres shall not contain more than:
   i. Formaldehyde: 1 mg/dm$^2$
   ii. Glyoxal: 1,5 mg/dm$^2$
   iii. PCP: 0.15 mg/kg
   iv. PCB: 0.05 mg/kg

b. All tissue products shall fulfil the following requirements:
   i. Slimicides and antimicrobial substances: No growth retardance of micro-organisms.
   ii. Dyes: No bleeding.

Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by information, including test reports, to demonstrate that the limits are being met.

Notes

Initial testing should be completed for each furnish. Additional testing should be completed if the character of the recycled content used changes, or if the types or quantities of slimicides or dyes used changes.

Test methods

The following test methods, or equivalents, should be used:

- Formaldehyde - EN 1541:2001 Paper and board intended to come into contact with foodstuffs. Determination of formaldehyde in an aqueous extract.
- Glyoxal - DIN 54603 Testing of paper, paperboard and board - Determination of glyoxal content.
- Slimicides and antimicrobial substances - EN 1104:2005 Paper and board intended to come into contact with foodstuffs. Determination of the transfer of antimicrobial constituents.
- Bleeding of dyes - EN 646:2006 Paper and board intended to come into contact with foodstuffs. Determination of colour fastness of dyed paper and board. Level 4 is required.
7 Requirements and notes for licence holders

Monitoring Compliance

Prior to granting a licence, The Trust will prepare a plan for monitoring ongoing compliance with these requirements. This plan will reflect the number and type of products covered by the licence and the level of sampling appropriate to provide confidence in ongoing compliance with criteria. This plan will be discussed with the Licence applicant and when agreed will be a condition of the Licence.

As part of the plan, The Trust will require access to relevant quality control and production records and the right of access to production facilities. Relevant records may include formal quality management or environmental management system documentation (for example, ISO 9001 or ISO 14001 or similar).

The monitoring plan will require the licence holder to advise The Trust immediately of any noncompliance with any requirements of this specification which may occur during the term of the licence. If a non-compliance occurs, the licence may be suspended or terminated as stipulated in the Licence Conditions. The licensee may appeal any such suspension.

The Trust will maintain the confidentiality of identified confidential information provided and accessed during verification and monitoring of licences.

Using the ECNZ Label

The Label may appear on the wholesale and retail packaging for the product, provided that the product meets the requirements in this specification and in the Licence Conditions.

Wherever it appears, the Label must be accompanied by the words Sanitary Paper Products and by the Licence Number e.g. ‘licence No 1234’.

The Label must be reproduced in accordance with the ECNZ programme’s keyline art for reproduction of the Label and the Licence Conditions.

Any advertising must conform to the relevant requirements in this specification, in the Licence Conditions and in the keyline art.

Failure to meet these requirements for using the ECNZ Label and advertising could result in the Licence being withdrawn.
Appendix A: Product Description Tables
Table 1 - Fibre/Raw Material Table

Complete one table for each similar product type; use a second page if necessary.

<table>
<thead>
<tr>
<th>Fibre/ raw material name (in English and Latin, where appropriate)</th>
<th>Weight in final product</th>
<th>Fibre/raw material as a % of finished product weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Wood-based fibre (%)</td>
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<tr>
<td></td>
<td></td>
<td>(%)</td>
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</tr>
</tbody>
</table>

Total % by material type:

Total %:  

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2 - Supply Chain Information

Include each fibre/raw material and subcontracted processing operation, e.g. fibre, pulp supplier/making, paper making, board supplier etc.

**Note:** information about additives and hazardous substances should not be included. These are covered in Table 3.

| Fibre/raw material or process | Supplier name | Supplier address and contact details, include:  
<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• all manufacturing locations</td>
<td>• geographical origin (country/state and region/province) for each manufacturing location</td>
<td>Certifications held (e.g. FSC, PEFC, ISO 14001 etc)</td>
</tr>
</tbody>
</table>
Table 3- Additives and Hazardous Substances Description Table

Complete one table for each paper furnish. Furnish name/code:

<table>
<thead>
<tr>
<th>Type of Chemical</th>
<th>ECNZ Clause</th>
<th>Trade Name</th>
<th>Chemical Name</th>
<th>Supplier</th>
<th>CAS Number</th>
<th>SDS Issue date</th>
<th>Copy attached (✓)</th>
<th>HSNO/Risk phrases/GHS</th>
<th>% added by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleaches and complexing agents</td>
<td>5.3.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.3.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dyes, pigments and coatings</td>
<td>5.3.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.3.3</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surfactants and foam inhibitors</td>
<td>5.3.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td>5.3.4</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleaning solvents and biocides</td>
<td>5.3.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.3.5</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Type of Chemical</td>
<td>ECNZ Clause</td>
<td>Trade Name</td>
<td>Chemical Name</td>
<td>Supplier</td>
<td>CAS Number</td>
<td>SDS Issue date</td>
<td>Copy attached (✓)</td>
<td>HSNO/Risk phrases/GHS</td>
<td>% added by weight</td>
</tr>
<tr>
<td>-----------------------</td>
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<td>--------------------</td>
</tr>
<tr>
<td>Wet strength agents</td>
<td>5.3.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>paper product.</td>
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Appendix B: Fibre sourcing flow charts

The purpose of Clause 5.2.1 is to ensure that every product with an ECNZ licence does not contain any fibre from protected species or ecosystems. There are four options a) to d) and these are described in the flow diagrams below.

a) Recycled fibre

Does the product contain 100% recycled fibre?

- Yes: Product meets the requirements of Clause 5.2.1 a)
- No: Go to b), c) or d)

Is at least 70% of the recycled fibre post-consumer recycled fibre?

- Yes: Product meets the requirements of Clause 5.2.1 a)
- No: Product does not meet the requirements of Clause 5.2.1 a)
b) Waste fibre

Does the product contain 100% sawdust, wood chips, waste wood from processing, forest harvesting waste, untreated demolition waste or recycled fibrewaste?

- Yes
- No: Go to c) or d)

Is the waste wood from native forests?

- Yes
- No: Product meets the requirements of Clause 5.2.1 b)

Do those native forests have FSC/PEFC or equivalent SFM certification?

- Yes: Product meets the requirements of Clause 5.2.1 b)
- No: Product does not meet the requirements of Clause 5.2.1 b)
c) Virgin fibre

100% virgin fibre from native forests

- Does the product contain 100% virgin fibre?
  - Yes
  - No

- Is all of the virgin fibre from native forests?
  - Yes
  - No

  - Go to flow chart:
    - 100% virgin fibre from plantations, or
    - 100% virgin fibre from a mix of native forests and plantations

- Does all of the fibre come from native forests which have FSC/PEFC or equivalent* SFM certification?
  - Yes
  - No

  - Product meets the requirements of Clause 5.2.1.c)

- Product does not meet the requirements of Clause 5.2.1.c)

* see Notes section of Clause 5.2.1 for a list of accepted equivalents to FSC or PEFC SFM certification
100 % virgin fibre from plantations

Does the product contain 100 % virgin fibre?

Yes

Is all of the virgin fibre from plantations?

Yes

Does at least 50 % of the fibre come from plantations which have FSC/PEFC or equivalent SFM certification?

Yes

Product meets the requirements of Clause 5.2.1-c)

No

Product does not meet the requirements of Clause 5.2.1-c)

No

Go to flow chart: 100 % virgin fibre from a mix of native forests and plantations

Is all of the plantation fibre from legally harvested sources?

Yes

Product meets the requirements of Clause 5.2.1-c)

No

Product does not meet the requirements of Clause 5.2.1-c)

*see Notes section of Clause 5.2.1 for a list of accepted evidence to demonstrate legal harvesting

*see Notes section of Clause 5.2.1 for a list of accepted equivalents to FSC or PEFC SFM certification
100% virgin fibre from a mix of native forests and plantations

* see Notes section of Clause 5.2.1 for a list of accepted evidence to demonstrate legal harvesting

Does the product contain 100% virgin fibre?

Yes ➔ Go to flow chart:
- 100% virgin fibre from native forests,
- 100% virgin fibre from plantations

No ➔ Go to d)

Is all of the virgin fibre from a mix of native forests and plantations?

Yes ➔ Go to flow chart:
- 100% virgin fibre from native forests,
- 100% virgin fibre from plantations

No ➔ Product does not meet the requirements of Clause 5.2.1 c)

Is ALL of the plantation fibre from legally harvested sources*?

Yes ➔ Product meets the requirements of Clause 5.2.1 c)

No ➔ Product does not meet the requirements of Clause 5.2.1 c)

Does ALL of the native forest fibre come from forests which have FSC/PEFC or equivalent* SFM certification?

Yes ➔ Product meets the requirements of Clause 5.2.1 c)

No ➔ Product does not meet the requirements of Clause 5.2.1 c)

Does native fibre make up at least 50% of the total fibre in the product?

Yes ➔ Product meets the requirements of Clause 5.2.1 c)

No ➔ Product does not meet the requirements of Clause 5.2.1 c)

Does some of the plantation fibre come from plantations which have FSC/PEFC or equivalent* SFM certification?

Yes ➔ Product meets the requirements of Clause 5.2.1 c)

No ➔ Product does not meet the requirements of Clause 5.2.1 c)

Does all of the native forest fibre + SFM certified plantation fibre make up at least 50% of the total fibre in the product?

Yes ➔ Product meets the requirements of Clause 5.2.1 c)

No ➔ Product does not meet the requirements of Clause 5.2.1 c)

* see Notes section of Clause 5.2.1 for a list of accepted equivalents to FSC or PEFC SFM certification
d) Mixed fibre

Does the product contain a mixture of fibre types?

Yes

No

The products should be assessed against Clauses 5.2.2 or 5.2.3 or may be outside of the scope of EC-13

Is at least 90% of the fibre a combination of recycled fibre, waste wood or fibre from forests or plantations which have FSC/PEFC or equivalent* SFM certification?

Yes

No

Product does not meet the requirements of Clause 5.2.1 d)

No, or there is no waste wood in the fibre mix

Is the waste wood from native forests?

Yes

No

Product does not meet the requirements of Clause 5.2.1 d)

Do those native forests have FSC/PEFC or equivalent SFM certification?

Yes

No

Product does not meet the requirements of Clause 5.2.1 d)

Is any of the remaining 10% virgin fibre?

Yes

No

Product meets the requirements of Clause 5.2.1 d)

Is any of that virgin fibre from native forests?

Yes

No

Product does not meet the requirements of Clause 5.2.1 d)

Is any of the virgin fibre from plantations?

Yes

No

Product meets the requirements of Clause 5.2.1 d)

Do ALL of those native forests have FSC/PEFC or equivalent* SFM certification?

Yes

No

Product does not meet the requirements of Clause 5.2.1 d)

Is ALL of the plantation fibre from legally harvested sources +?

Yes

No

Product does not meet the requirements of Clause 5.2.1 d)

* see Notes section of Clause 5.2.1 for a list of accepted equivalents to FSC or PEFC SFM certification

+ see Notes section of Clause 5.2.1 for a list of accepted evidence to demonstrate legal harvesting
## Appendix B: Hazardous Substances Classifications

### Table 4- Hazardous Substance Classifications prohibited by Clause 5.3.1

<table>
<thead>
<tr>
<th>European Risk Phrases*</th>
<th>New Zealand HSNO Classes</th>
<th>Globally Harmonised System**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toxins</strong></td>
<td></td>
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</tr>
<tr>
<td>R26 very toxic by inhalation</td>
<td>6.1A or 6.1B</td>
<td>Acute Tox. 1 and 2; H330</td>
</tr>
<tr>
<td>R27 very toxic in contact with skin</td>
<td>6.1A</td>
<td>Acute Tox. 1; H310</td>
</tr>
<tr>
<td>R28 very toxic if swallowed</td>
<td>6.1A or 6.1B</td>
<td>Acute Tox. 2; H300</td>
</tr>
<tr>
<td><strong>Ecotoxins</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R50 very toxic to aquatic organisms</td>
<td>9.1A</td>
<td>Aquatic Acute 1; H400</td>
</tr>
<tr>
<td>R51 toxic to aquatic organisms</td>
<td>9.1B</td>
<td></td>
</tr>
<tr>
<td>R50/53 very toxic to aquatic life with long lasting effects</td>
<td>9.1A</td>
<td>Aquatic Acute 1 Aquatic Chronic 1; H400, H410</td>
</tr>
<tr>
<td>R51/53 toxic to aquatic life with long lasting effects</td>
<td>9.1B</td>
<td>Aquatic Chronic 2; H411</td>
</tr>
<tr>
<td><strong>Sensitisers</strong></td>
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<tr>
<td>R42 May cause sensitisation by inhalation</td>
<td>6.5A</td>
<td>Resp. Sens. 1; H334</td>
</tr>
<tr>
<td>R43 May cause sensitisation by skin contact</td>
<td>6.5B</td>
<td>Skin. Sens. 1; H317</td>
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<tr>
<td><strong>Carcinogens, mutagens and reproductive toxins</strong></td>
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<tr>
<td>R40 limited evidence of a carcinogenic effect</td>
<td>6.7B</td>
<td>Carc. 2; H351</td>
</tr>
<tr>
<td>R45 may cause cancer</td>
<td>6.7A</td>
<td>Carc. 1A and 1B; H350</td>
</tr>
<tr>
<td>R46 may cause heritable genetic damage</td>
<td>6.6A</td>
<td>Muta. 1A and 1B; H340</td>
</tr>
<tr>
<td>R49 may cause cancer by inhalation</td>
<td>6.7A</td>
<td>Carc. 1A and 1B; H350</td>
</tr>
<tr>
<td>R60 may impair fertility</td>
<td>6.8A</td>
<td>Repr. 1A and 1B; H360</td>
</tr>
<tr>
<td>R61 may cause harm to the unborn child</td>
<td>6.8A</td>
<td>Repr. 1A and 1B; H360</td>
</tr>
<tr>
<td>R62 possible risk of impaired fertility</td>
<td>6.8B</td>
<td>Repr 2; H361</td>
</tr>
<tr>
<td>R63 possible risk of harm to the unborn child</td>
<td>6.8B</td>
<td>Repr 2; H361d</td>
</tr>
<tr>
<td>R68 possible risk of irreversible effects</td>
<td>6.6B</td>
<td>Muta. 2; H341</td>
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</tbody>
</table>

* R-phase and GHS equivalents to HSNO classifications are taken from Assigning a Product to a HSNO Approval, Environmental Protection Authority, (Revised August 2013).


**NOTE:** There are different classification systems for hazardous substances that are used internationally. As the ECNZ specifications need to consider products that are manufactured in New Zealand and overseas, it is necessary to consider the equivalence of hazardous property classification systems in different jurisdictions. The table above shows the (broadly) equivalent European Risk Phrases, New Zealand HSNO Classifications and the United Nations' Globally Harmonised System of Classification and Labelling of Chemicals.
(GHS) classifications. The EU has implemented the GHS into EU law, replacing the Risk Phrases, and all “substances” (single compounds) have now been transferred to the new classification system. Mixtures must be classified under the GHS by 31 May 2015.

It is important to note that the Risk Phrases, HSNO Classifications and GHS are classification frameworks and the particular classifications applied to a substance may vary between jurisdictions (for example Europe, the United States and New Zealand each have their own agency with responsibility for assessing and classifying hazardous substances). Differences between classifications can be due to the weight placed on particular toxicity studies (i.e. a jurisdiction may consider that a study is flawed) or in the event that new information becomes available (i.e. differences in the timing of the classification or re-classification of a substance).

Where there is a discrepancy between the classifications applied to specific substances in the different schemes, The Trust’s appointed technical advisors will review supporting information regarding the classifications on a case-by-case basis to determine and recommend to The Trust how these discrepancies should be managed within the life cycle context of the relevant product category. Where appropriate, technical clarifications and changes, with accompanying explanation, will be included in the relevant specification.