

GREEN CHOICE PHILIPPINES

NELP-GCP-2004006 PRINTING AND WRITING PAPER

ENVIRONMENTAL SCENARIO

As of 2003, the total industry capacity was 1.2 million metric tons of paper and board, of which 20% is accounted for by printing and writing grades.

The environmental impact from the manufacture of printing and writing paper can be attributed to the use of wood fiber directly or indirectly derived from commercial or natural forests. While paper production in the Philippines is mostly wastepaper-based, use of recycled fiber does not totally eliminate the demand for wood since some paper grades require virgin pulp for quality; and a 100% recycled-based system incurs a re-processing loss, thus requiring a net input of wood fiber at the first stage of paper production.

Sustainable forestry is already practiced in properly managed tree plantations, but logging of secondary, and even natural, forests continues within and outside the Philippines.

In addition, the processing phase in most paper mills consumes substantial volumes of water which, if not conserved or minimized, can threaten the limited supply of this resource. Thus there is need for facilities to recover, reuse and recycle it. Considering further the equivalent energy usage, effluents and sludge discharges, proper handling and disposal facilities are necessary to minimize the impact of paper production to the environment.

DEFINITION OF TERMS

1. Adsorbable Organic Halogens (AOX) – which is the amount of organic chlorine compound contained in effluent produced during bleaching of pulp by the reaction of chlorine chemicals with residual lignin in the wood fiber
2. Agricultural residues – agricultural wastes, such as wheat straw, rice straw, corn waste and sugar cane bagasse, alternatively used for paper production
3. Annual crop fiber – fiber coming from annual crops, such as kenaf and hemp, alternatively used for paper production
4. Biological oxygen demand (BOD) – a measure of the rate of dissolved oxygen used by water borne microorganisms in removing organic compounds dissolved in the water.
5. Bond paper – sized writing or printing paper, sometimes containing virgin fibers, and normally wood free, with additional requirements of strength and durability in order to withstand handling and filing.
6. Chemical pulp – pulp obtained by removal from the fiber raw material considerable part of non-carbohydrate components by chemical treatment.
7. Copy paper – paper, usually uncoated, used for xerographic, ink-jet and other types of home and office copiers and printers

8. Elemental chlorine – gaseous chlorine or chlorine derived from sodium or calcium hypochlorite, which is used as a bleaching agent
9. Local waste paper – waste paper generated and procured within the country of paper production
10. Mechanical pulp – pulp made from wood by purely mechanical means, i.e., grinding or refining of chips using mechanical refiners or grinding stones. Lignin and other impurities are not removed and further bleaching is needed if a white sheet is required. A lower grade pulp than chemical pulp.
11. Optical brighteners – chemical substance used to enhance brightness and whiteness of pulp.
12. Pulp substitute – total or partial replacement for virgin pulp by paper waste of higher category. They are usually unprinted paper trimmings.
13. Recycled fiber – fiber derived from recovered material, excluding wood residues and sawmilling residues, which has been repulped or reintroduced into the paper manufacturing process and make it into a product or form usable in the manufacture of a product.
14. Sustainably-managed forest – a forest managed to meet all existing regulations such that environmental, social and economic factors are balanced to meet the needs of the present without compromising the ability of future generations to meet their needs.
15. Woodfree – paper or board having, in principle, only chemical pulp in its fiber composition. In practice, however, it may contain up to 10% of mechanical pulp.

SCOPE

These criteria shall apply to unprinted printing and writing paper, which is used for bond papers, mimeographing paper, manifold or onion skin paper, plain copy paper, colored ruled paper, correspondence envelopes, continuous forms used for information processing, grade school pads, notebooks, machine-finished uncoated book paper and writing paper.

GREEN CHOICE CRITERIA

To carry the Green Choice Philippines seal, the product must meet the following requirements:

General Requirements:

1. The product shall conform to its corresponding Philippine National Standards (PNS) specifications.
2. The production process of the product shall meet the requirements of all applicable environmental laws and regulations.

Product Specific Requirements:

- a. *Products made from 100% recycled fiber*

1. The product shall be made from 100% recycled fiber, at least 5% of which is local waste paper.
2. The bleaching process for recycled fiber shall not use elemental chlorine (chlorine gas) and the amount of AOX in the discharge from the production of pulp must not exceed 0.3 kg/air dry metric tonne (ADMT), tested in accordance with ISO 9562.
3. Fresh water usage in the production process shall not exceed 30m³/ton.
4. Wastewater discharged from the plant shall comply with Department of Environment and Natural Resources (DENR) effluent standards.
5. Dyes, colorants and optical brighteners used in the paper manufacturing process shall not contain heavy metals such as lead, mercury, cadmium and chromium (+6), if so, traces shall be within the allowable limits as specified by any certified international standards.

b. Products made from the combination of recycled fiber and virgin pulp

1. The product shall be a combination of recycled fiber and virgin pulp, not exceeding 20%, produced from annual crop fiber, agricultural residues or pulp from sustainably-managed forests. At least 5% of the recycled fiber shall be local waste paper.
2. The bleaching process for virgin pulp shall not use elemental chlorine (chlorine gas) and the amount of AOX in the discharge from the production of pulp must not exceed 0.3 kg/air dry metric tonne (ADMT), tested in accordance with ISO 9562.
3. Fresh water usage in the production process must not exceed 20 m³/ton.
4. Wastewater discharged from the plant shall comply with DENR effluent standards.
5. Dyes, colorants and optical brighteners used in the paper manufacturing process shall not contain heavy metals such as lead, mercury, cadmium and chromium (+6), if so, traces shall be within the allowable limits as specified by any certified international standards.

EFFECTIVITY

These product criteria shall take effect for three (3) *years* from the date of its approval, and subject to change or withdrawal by the *Green Choice Philippines – Ecolabelling Programme Board*, if necessary at any period of time.

EVALUATION AND VALIDATION METHOD

1. Regarding general criterion 1, the applicant shall submit a certified true copy of the PS Mark Certificate if a PS licensee holder. Otherwise, the applicant shall submit the certified true copy of test results from an independent Bureau of Product Standards (BPS) accredited laboratory that the product is in compliance with the existing PNS. BPS shall evaluate the test results and shall issue the corresponding certification.
2. Regarding general criterion 2, the applicant shall submit all applicable licenses, certificates and/or permits indicating the applicant's compliance with all applicable environmental rules and regulations.

3. Regarding product criterion a.1, the applicant shall submit a self-certification from the company CEO, indicating that the fiber used is 100% recycled and the percentage of locally-generated waste paper is at least 5%. Furthermore, the applicant shall also submit a certified true copy of its delivery receipt of its locally-generated waste paper. If further validation is required, actual verification may be conducted.
4. Regarding product criteria a.2 and b.2, the applicant shall submit a self-certification from the company CEO, indicating the non-usage of elemental chlorine in their bleaching process. The applicant shall also submit certification that the AOX discharge from their production of pulp was evaluated in accordance with ISO 9562.
5. Regarding product criteria a.3, a.4, b.3 and b.4, the applicant shall submit a DENR certified true copy of its Self-Monitoring Report (SMR) for the last four (4) quarters, indicating the volume of paper production, fresh water usage and wastewater discharge in their paper production process.
6. Regarding product criteria a.5 and b.5, the applicant shall submit a compliance certification from BFAD or any internationally recognized independent laboratories or organizations to support the claim that no heavy metals, such as lead, mercury, cadmium and chromium were intentionally used in the paper manufacturing process. Traces from impurities shall be within the specified limits.
7. Regarding product criterion b.1, the applicant shall submit a self-certification from the company CEO and certification from its supplier that the virgin pulp used was obtained from a sustainably-managed forest and the percentage of locally-generated waste paper is at least 5%.

REFERENCES

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RA 6969 – Toxic Substances, Hazardous and Nuclear Wastes Control Act (Philippines, 1990)

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PNS 70:2004: - Bond paper - White and colored - Specification

PNS 122:1988 - Mimeographing paper - Specification

PNS 125:1988 - Manifold or onion skin paper - Specification

PNS 222:1988 - Plain paper copiers - Specification

PNS 265:1989 - Colored ruled paper – Specification

PNS 473:1997 - Grade school pads – Specification

PNS 474:1997 - Notebooks - Specification

PNS ISO 269:2002 - Correspondence envelopes - Designation and sizes

PNS ISO 2784:2002 - Continuous forms used for information processing - Sizes and sprocket feed holes

PNS ISO 216:2001 - Writing paper and certain classes of printed matter - Trimmed sizes - A and B series

PNS 221:1988 - Machine-finish uncoated book paper - Specification

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