

## **GREEN CHOICE PHILIPPINES**

### **NELP-GCP - 2008018 PAPERBOARD**

#### **1. ENVIRONMENTAL SCENARIO**

Paperboards are usually used for packaging goods and materials. The rise in environmental awareness attributed to the use of waste paper for production of boxes and vice versa. But while the use of waste paper for production of paper file box with recycled content considerably reduces the amount of waste paper, production of pulp still contributes significant burden on the environment. Effluents resulting from these processes can contain high concentrations of natural organic material, depleting much-needed oxygen from receiving waters which in turn adversely impacts plant and animal life. Sulfur, organochlorines, non-biodegradable detergents (surfactants) and other hazardous substances particularly halogenated organics, either used in or as waste resulting from the manufacturing process (e.g. from bleaching or from cleaning of equipment) can be harmful since these can potentially bioaccumulate and have toxic effects on the environment if rampantly discharged.

This specification addresses the issue of emissions from packaging and paperboard manufacturing. It aims to reduce, if not eliminate the discharge of process effluents into the environment and to manage the release of some environmentally persistent compounds.

#### **2. DEFINITION OF TERMS**

##### **2.1. BLEACHED PULP**

Pulp which has been subjected to bleaching

##### **2.2. CHEMICAL CONTROL ORDER**

Prohibits, limits, and regulates the use, manufacture, import, export, transport, processing, storage, possession and wholesale of priority chemicals.

##### **2.3. CORRUGATED FIBREBOARD**

A board consisting of one or more sheets of fluted paper stuck to a flat sheet of paper or between several sheets. It can be single face, single wall, double wall, or triple wall.

##### **2.4. CORRUGATING MEDIUM OR FLUTING MEDIUM**

A paper used in forming the fluted portion of the corrugated fiberboard also known as fluting medium.

##### **2.5. DENR ADMINISTRATIVE ORDER 2005-05 (DENR AO 2005-05)**

Toxic Chemical Substances for Issuance of Chemical Control Orders

##### **2.6. DENR ADMINISTRATIVE ORDER 2005-27 (DENR AO 2005-27)**

Revised Priority Chemical List

##### **2.7. GRAMMAGE**

The mass of unit area of paper or board expressed in grams per square meter

**2.8. PAPERBOARD**

Heavier and fairly rigid paper with a grammage higher than 250 gsm

**2.9. POST CONSUMER MATERIALS**

Those finished products, packages or materials generated by a business or consumer that have served their intended end uses, and that have been recovered from or otherwise diverted from the waste stream for the purpose of recycling.

**2.10. PRIORITY CHEMICALS LIST (PCL)**

A list of existing and new chemicals that the DENR has determined to potentially pose unreasonable risk to public health, workplace, and the environment

**2.11. PROCESS**

Means the preparation of a chemical substance or mixture after its manufacture for commercial distribution:

1. In the same form or physical state or in a different form or physical state from that which it was received by the person so preparing such substance or mixture; or
2. As part of an article containing a chemical substance or mixture.

**2.12. PULP**

The fibrous material, generally of natural vegetable origin, made ready for use in further manufacturing processes.

**2.13. RECYCLED FIBER OR SECONDARY FIBER**

Any fibrous material that has already undergone a manufacturing process and is being recycled as the raw material for another manufactured product.

**2.14. REPUBLIC ACT 8970 (RA 8970)**

Ban HABS Law

**2.15. 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 the future generations to meet their needs.

**2.16. TOXIC**

Toxic wastes are poisonous and have carcinogenic, mutagenic, or teratogenic effects on human or other life forms.

**2.17. TRANSPORT**

Includes conveyance by air, water and land

**2.18. UNBLEACHED PULP**

Pulp which has not been subjected to bleaching

**3. SCOPE**

The criteria are applicable for the following products:

- Corrugated fiberboard products
- Carton paper products made from coated or uncoated folding carton boards (boxboards).
- Solid fiberboard products made from multiple laminated plies.

#### 4. GREEN CHOICE REQUIREMENTS

##### 4.1. Product Quality Performance

The product shall comply with the performance requirements of the relevant Philippine Product Standard for its intended application in Table 1 or other internationally accepted standard.

**Table 1 – Applicable Philippine National Standards for Paper Board**

Standard No.	Title
PNS 166:2002	Paper, board and pulps – Corrugating medium specification

##### 4.2. Product Environmental Requirements

###### 4.2.1. Compliance to Environmental Regulations

The applicant is required to comply with relevant environmental legislations. This includes production process, transport and disposal features of the product.

###### 4.2.2. Virgin Pulp

When virgin pulp is used, the timber used:

- Shall be legally harvested according to the regulations of the producing country
- Shall be from sustainably managed forest or waste wood, and/or compliant with the Forestry Stewardship Council standards or its equivalent

###### 4.2.3. Recycled Content

The product shall contain at least 80% recycled fiber, including 25% post consumer material.

###### 4.2.4. Dyes, Pigments and Coatings

- Product shall not contain phthalates, mercury, lead, copper, chromium, nickel, aluminum or cadmium and other substances listed in DENR AO 2005-05.
- Azo dyes or pigments which may release one of the amines listed in Table 2 below shall not be used.

**Table 2 – Azo Dyes and Pigments**

Name	CAS No.
4-aminodiphenyl	92-67-1
4-aminoazobenzene	60-09-3
Benzidine	92-87-5
4-chloro-o-toluidine	95-69-2
2-naphthylamine	91-59-8
o-aminoazotoluene	97-56-3
2-amino-4-nitrotoluene	99-55-8
p-chloroaniline	106-47-8
2,4-diaminoanisole	615-05-4
4,4'-diaminodiphenylmethane	107-77-9
3,3'-dichlorobenzidine	91-94-1
3,3'-dimethoxybenzidine	119-90-4
3,3'-dimethylbenzidine	119-93-7

3,3'-dimethyl-4,4'-daminodephenylmethane	838-88-0
p-cresidine	120-71-8
4,4'-methylene-bis-(2-chloroaniline)	101-14-4
4,4'-oxydianiline	101-80-4
4,4'-thiodianiline	139-65-1
o-toluidine	95-53-4
2,4-toluidinediamine	95-80-7
2,4,5-trimethylaniline	137-17-7
o-anisidine	90-04-0

- The product to which the label is applied must not be impregnated, coated or otherwise treated in a manner which would prevent recycling.

**4.2.5. Bleaching Agent**

The recycled paper shall not be bleached with chlorine or halogenated bleaching agents.

**4.2.6. Surfactants**

- The product shall not contain any hard surfactants defined in RA 8970
- Alkyl phenol ethoxylates (APEO) and alkyl phenol derivates (APD) shall not be added to the product.

**4.2.7. Other Prohibited Substances**

The product shall not contain the following substances:

- Substances listed in DENR AO 2005-05 and DENR AO 2005-27
- Phthalates
- Halogenated solvents
- Glycol Ethers listed in Table 3
- Ethylene Diamine Tetraacetic Acid (EDTA).

**Table 3 - Glycol Ethers**

<b>Abbreviated Name</b>	<b>Other names</b>
EGME	Ethylene glycol methyl ether, 2-methoxyethanol monomethylic ether, ethylene-glycol, methyl glycol, MG
EGMEA	Ethylene acetate, AMG, monomethylic ether acetate, ethylene-glycol
EGEE	Ethylene glycol ethyl ether, 2-ethoxyethanol, monoethylic ether ethylene-glycol, ethyl glycol, EG
EGEEA	Ethylene acetate glycol ethyl ether, 2-ethoxyethyle acetate, acetate ethylglycol, AEG
EGDME	Ethylene glycol dimethyl ether, 1,2-dimethoxyethane
DEGDDEE	diethylene glycol diethyl ether, bis(2-ethoxyethyl)ether
DEGME	diethylene glycol dimethyl ether, bis(2-methoxyethyl)ether
TEGDME	Triethylene glucol dimethyl ether

## 5. EVALUATION AND VALIDATION

PRODUCT CRITERIA	EVALUATION AND VALIDATION
<b>4.1 PRODUCT QUALITY PERFORMANCE</b>	
<i>Quality Performance</i>	The applicant shall submit a certification from duly recognized/ accredited laboratories and certifying bodies.*
<b>4.2 PRODUCT ENVIRONMENTAL REQUIREMENTS</b>	
<i>4.2.1. Compliance to Environmental Regulations</i>	Submission of applicable licenses and permits to operate indicating the manufacturer's compliance with agreements on environmental regulations applicable to the area where the plant is located.
<i>4.2.2. Virgin Pulp</i>	The applicant shall submit a program and statement in writing signed by the Chief Executive Officer of the company or its equivalent position and shall be accompanied by the relevant documentations and samples.**
<i>4.2.3. Recycled Content</i>	
<i>4.2.4. Dyes, Pigments and Coatings</i>	The applicant shall submit a certification from duly recognized/ accredited laboratories and/or certifying bodies.*
<i>4.2.5. Bleaching Agent</i>	
<i>4.2.6. Surfactants</i>	
<i>4.2.7. Other Prohibited Substances</i>	

\* Laboratories accepted by national or international accreditation bodies such as the Asia Pacific Laboratory Accreditation Cooperation (APLAC) or International Laboratory Accreditation Cooperation (ILAC)

\*\* Notarized documents

## 5. PERIOD OF VALIDITY

The 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-NELP Board**, if proven necessary at any period of time.

## **6. REFERENCES**

Blue Angel; Recycled Cardboard RAL-UZ 56

*DENR Administrative Order 2005-05: Toxic Chemical Substances for Issuance of Chemical Control Orders*

*DENR Administrative Order 2005-27: Revised Priority Chemical List*  
*Republic Act 6969: Toxic Substances, Hazardous and Nuclear Waste Control Act*

Green Seal; GC-08-Paper Products Used in the Preparation of Food.

Hong Kong Green Label Scheme; Product Environmental Criteria for Paper file box with Recycled Content GL-001-005.

Japan Environment Association; Eco Mark Product Category No. 113: Packaging Paper version 2.3 Certification Criteria.

New Zealand Ecolabelling Trust; License Criteria Packaging and Paperboard Products EC-10-07.

PNS 166:2002: Paper, board and pulps – Corrugating medium specification

**GREEN CHOICE PHILIPPINES**  
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