

Green Public Procurement technical specifications for priority product groups



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1. Introduction

This document is an annex to the Philippine GPP roadmap which foresees the main avenue for including the green approach in the public procurement process is the formulation of technical specifications in the bidding documents. GPP does not change the requirement of the standard Philippine Bidding Documents (PBDs) to be clear and concise in specifying what quality and functionality the tendered items shall have. The bidding process becomes a green process by adding new or alternative technical specifications which refer to the potential environmental impacts of an item regarding its material composition and in its use and its disposal phase.

Green criteria express the environmental relevance of products and services over their life cycle or parts of it. Typical questions that can be asked are for example: What is the origin of the materials contained in a product; are they from renewable, recycled or from limited sources? Are there hazardous substances involved that could be avoided? What attributes would make a product more environmentally-friendly in its use phase through reduced energy and water consumption, lesser carbon emissions or extended durability? What are the options of an item at its end of life; is there a recycling or re-use opportunity? The usual requirements regarding functionality of a procured item are principally not affected; the procured item shall serve its purpose independent if it is green or not green.

In summary, commonly used criteria refer to energy consumption and energy sources, carbon emissions, waste to landfills and recycling options, packaging, water use, hazardous substances, local environment pollution of air and water, biodiversity, materials including renewable alternatives.

The identification of green technical specifications for the Philippine context can capitalise on vast international experiences and research in form of comprehensive life cycle assessments, the results of which are open-source available. The common practice is to pick those arguments for the formulation of green technical specifications, which are of the highest relevance, which are practicable to use by suppliers as well as by the procuring entity in the process of verification. Although comprehensive criteria are available, it is a best practice to refer to a few, in some cases only to a single criterion depending on the nature of the subject; paramount is the feasibility of the approach and a lighter green approach is often more appropriate than a dark green ambition that probably fails due to sophistication.

Green technical specifications must fit the purpose to identify the lowest bid. Specifications have to be formulated so that a transparent evaluation at the price level is possible. This requires that the technical specifications express both the requested functionality and the green attributes. Aspects that refer to Life Cycle Cost (LCC) or Total Cost of Ownership (TCO) considerations have to be expressed as technical specifications that have to be met by the supplier. Usually, green criteria will even provide added value, either directly due to improved product functionality or indirectly due to the contribution to realise policy goals in environment protection and sustainable development.

2. Process to develop GPP technical specifications

The development of the GPP technical specifications which are set out in the next chapter required several procedural steps which are described below. At first, the starting set of GPP products/product categories needed to be identified.

Product Group Selection

To select the relevant group of products/product categories, the SCP (Sustainable Consumption and Production) project team took a look at procedures and experiences of other countries. Criteria that are typically used for the selection of products and product groups were reviewed and evaluated for their relevance in the context of the Philippines. Eventually, together with the Department of Budget and Management – Procurement Service (DBM-PS) and the Government Procurement Policy Board – Technical Support Office (GPPB-TSO) six criteria were chosen for selecting and prioritizing products/product groups: market readiness, environmental impact, cost implications, practicability of criteria, support to governmental environmental objectives and support to the local economy, especially Small and Medium-sized Enterprises (SMEs).

These prioritization criteria are explained further below.

- Market readiness: Is there a sufficient number of suppliers, sufficient choice and sufficient product quality? A score is given from 1, if the market is not ready at all, for example because no suppliers exist, to 5, if the market is perfectly ready and many suppliers which offer a broad choice of products are available.
- Environmental impact: What is the direct environmental impact for example through emissions and depending on the number of procured goods and the individual environmental pollution caused by each product? In addition, what is the indirect environmental impact through a potential contribution to greening the industry depending on the leverage on the market? A score of 1 to 5 is given depending on a low or very substantive positive environmental impact.
- Cost implications: Are decreasing costs through lower operational costs for energy, water and disposal expected or higher costs for example as a consequence of higher product cost and higher product quality? A score of 1 to 5 is given depending on substantial cost increases or notable savings.
- Practicability: Are supposed green criteria easy to formulate and to verify? A score of 1 to 5 is given depending on the difficulty or easiness to formulate and to verify green criteria.
- Support to government environmental objectives: A score of 1 to 5 is given depending on either a weak or a strong connection to government environmental objectives.
- Support to the local economy: A score of 1 to 5 is given depending on either no or substantial support to the local industry and local SMEs.

The actual process for product selection was divided into (1) Common-Use Supplies and Equipment (CSE) products and (2) non-CSE products.

Selection of Common-Use Supplies and Equipment products for GPP

According to the above matrix or ‘radar’ system, a first set of ten items suitable for GPP have been identified in consultative processes assisted by the SWITCH-Asia team. The ten products have been prioritised with the following order of cumulative scores: multi-copy paper, toilet paper, record books, cleaners, chairs, disinfectant spray, trash bags liquid hand soap, detergent powder and Light Emitting Diode (LED) light bulbs.

This screening method is applicable to all other CSE items. The most critical issues that could favour or hamper the uptake of CSE products for GPP are the market readiness in the context of supporting the local economy, given a much developed global market, which is able to supply today any form of green products. As long as there is no conflict with local suppliers’ capacities the uptake should not be an issue. In case of a conflict there is still the broad field of formulating technical specifications in the country specific context. As an example that such considerations are already present in the current public procurement system are chairs: in Scandinavian countries a sustainable chair would be of wooden material due to the vast forest resources; in the Philippines chairs are preferably made from plastic due to the lack of forest resources; a plastic chair would not pass GPP in forest-rich countries, a wooden chair not in the Philippines.

For the selection of a GPP starting set of ten CSE product groups, various information was taken into account. Among others, the spending of the Procurement Service (PS) was reviewed in order to determine the products most commonly purchased by the institution.

The decision matrix applying the selection criteria and CSE product categories is shown below.

Prioritisation of Product Categories (CSE products)												
No.	Criteria	Weight	Chairs	Cleaner	Detergent Powder	Disinfectant Spray	LEDs	Multicopy Paper	Liquid Hand Soap	Trash Bag	Toilet Paper	Record Books
1	Market readiness	1	4	4	4	4	4	5	4	4	5	5
2	Environmental impact	1	4	4	3	3	3	5	3	4	4	5
3	Cost implications	1	3	5	4	4	4	5	4	4	5	4
4	Practicability of criteria	1	4	3	3	4	3	4	3	3	4	4
5	Support to government environmental objectives	1	2	3	3	3	3	3	3	3	3	3
6	Support to the local economy (SMEs)	1	4	3	3	3	1	4	3	3	4	4
	Weighted average		3,5	3,7	3,3	3,5	3,0	4,3	3,3	3,5	4,2	4,2

Selection of Non-Common-Use Supplies and Equipment Products

Concerning the non-CSE products, GPP product groups in other countries were reviewed, taking into account in particular the most commonly used GPP items in the EU, a list of potential GPP products considered by the Philippine Center for Environmental Protection and Sustainable Development, Inc. (PCEPSDI), and lists of products selected for GPP in the UK and in Japan. A “consolidated list for non-CSE products” with over 90 product groups (including services) was set up. Then, similar to the CSE products, in a joint effort by the SWITCH team,

DBM-PS and GPPB-TSO, 10 product categories were identified and prioritized for GPP as starting point using the six prioritization criteria developed.

Prioritisation of Product Categories (Non CSE products)												
No.	Criteria	Weight	Vehicles	Fridges and Freezers	Computer monitors, Desktop Computers and Laptops	Copiers	Air Conditioners	Paints and vanishes	Textiles/ Uniforms and work clothes	Toilets and urinals	Food and Catering Services	Training Facilities/ Hotels/ Venue
1	Market readiness	1	5	4	5	5	4	4	3	3	3	3
2	Environmental impact	1	4	2	4	3	3	4	3	2	3	3
3	Cost implications	1	2	5	4	4	5	4	3	4	4	3
4	Practicability of criteria	1	5	3	4	3	4	3	3	3	3	3
5	Support to government environmental objectives	1	5	5	5	5	5	3	3	3	3	3
6	Support to the local economy (SMEs)	1	2	3	2	2	3	3	2	3	5	5
	Weighted average		3,8	3,7	4,0	3,7	4,0	3,5	2,8	3,0	3,5	3,3

Development of Technical Specifications

The frame of the technical specifications

For determining the technical specifications for each product/product group, a standard template was created. The template was developed on the basis of comparable concepts abroad. It consists of:

- Scope
- Key environmental impact and GPP approach
- Product Specifications
- Evidence
- Verification
- References

In a second step, the SWITCH team conducted extensive research for GPP technical specifications used worldwide with respect to the 10 CSE and 10 non-CSE products/product groups. International specifications, especially from UNEP and the EU, but also from other international organizations like the Green Purchasing Network (GPN), as well as national GPP technical specifications from various countries across the world, in particular from countries with extensive GPP experience including, but not limited to, UK, Norway, and Germany, but also from countries in the region, like Malaysia, Thailand, Hong Kong, New Zealand and Australia, were taken into account.

Apart from existing technical specifications document research included also background reports on the products/product categories and studies regarding the experience made with the existing technical specifications. More than 100 documents in total were considered. Based on these documents, the six categories of the templates were filled out for each of the

10 CSE products and 10 non-CSE products. Overall, the development of the technical specifications was guided by the principle of applicability and simplicity.

3. Specifications for Common-Use Supplies and Equipment Products

Explanatory note

The following technical specifications consist of six sections:

- Scope
- Key environmental impact and GPP approach
- Product Specifications
- Evidence
- Verification
- References

The *scope* is defined taking into account the current use conditions (CSE requirements), but keeping it as open as possible.

The *key environmental impact* does include all aspects of a product where it has a major negative impact on the environment. The *GPP approach* should address the key environmental impacts where possible. The current specifications do not always address all the key environmental impacts. Future reviews of the documents and a further strengthening of the GPP approach should make sure that step by step all key environmental impacts will be addressed.

The *product specifications* are kept deliberately simple. In specifying the product specifications - where possible - reference is made to existing national standards. The specifications address only the most important environmental aspects and are restricted to specifications which are (relatively) easy to verify. The *product specifications* contain also a sub-section on justification. In that section the product specification is further explained in detail, based on technical reports and other international information sources on products and chemical substances.

The section on *evidence* again relies on international experiences. The section explains which evidence shall be provided by the supplier.

Closely linked to that section is the section on verification. This section specifies how the criteria of the product specifications can be verified by the procuring entity, taking into account the evidence provided by the supplier, but not relying exclusively on it.

References provides links to existing examples, partly technical specifications with a similar approach, partly technical specifications which are far more complex and which provide an idea, how the GPP approach might be strengthened in future. Also, *references* include some background information where possible.

SCOPE

Toilet paper in rolled form, interfolded or coreless for toilet facilities of government offices and public amenities

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of toilet paper are:

- Forest destruction and potential loss of biodiversity related to the pulp production;
- Energy and water consumption during production of toilet paper;
- Harmful emissions to air and water during pulp and paper production;
- Chemical consumption during production;
- Waste generation and packaging.

The GPP approach should cover therefore:

- Purchase products with a low energy and resource use during processing;
- Purchase products which avoid harmful substances in paper production and bleaching;
- Purchase products with high recycled content;
- Purchase products from legally and sustainably harvested wood.

PRODUCT SPECIFICATIONS

- The supplier shall supply products which are made out of raw materials from 100% recycled fibre.
- The supplier shall supply paper which is at least Elementary Chlorine Free (ECF).
- The core as well as any paper wrapping and carton box packing must be made from 100% recycled fibre and the cartons must be strong enough for storage and transit.

Future criteria (1.1.2019):

- Recycled fibre must contain not less than 60% post-consumer fibre.
- The supplier shall supply paper which is Totally Chlorine Free (TCF).

Post-consumer recycled fibres may come from consumers, offices, printing houses, bookbinders or similar. Fibres from paper mill broke shall not be considered recycled fibres.

Recycled paper fibres include both post-consumer recycled fibres and pre-consumer recycled fibres from paper mills, also known as broke.

Justification:

Paper production from recycled paper is far less environmentally damaging. It avoids destruction of natural forests, reduces water consumption, energy consumption (between 40% and 64%) as well as emissions of chemical substances to the air (74%) and to the water (35%).

Recycling quotas correspond to the quotas used for GPP in Hong Kong.

Conventional bleaching using elemental chlorine produces and releases into the environment large amounts of chlorinated organic compounds, including chlorinated dioxins. Dioxins are highly toxic, and

health effects on humans include reproductive, developmental, immune and hormonal problems. The use of elemental chlorine in the delignification process has been substantially reduced and replaced with ECF (Elementary Chlorine Free) and TCF (Totally Chlorine Free) bleaching processes. ECF bleaching can substantially reduce but not fully eliminate chlorinated organic compounds, including dioxins, from effluent.

EVIDENCE

The supplier must provide evidence that these specifications are met. Especially concerning the origin of raw materials certification schemes or evidence of recycled materials must be provided. Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance.

VERIFICATION

High quality recycled paper may look identical to conventional paper. Be aware that especially on the Philippine market you are likely to encounter paper made from recycled fibre which neither has an official label nor a product mark indicating the recycled content.

Independent testing can be carried out by the Forest Product Research and Development Institute (c/o DOST). No tests for post-consumer content or TCF available so far. [Testing on ECF has yet to be clarified.]

REFERENCES

EPD. 2014. Paper Products other than for Printing and Photocopying (Category Code – N).
http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/N02.pdf

GPN. 2014. GPN-GL 3A Purchasing Guidelines for Toilet Paper.
<http://www.gpn.jp/guideline/files/english/GPN-GL3A.pdf>

The New Zealand Ecolabelling Trust. 2015. Licence Criteria for Sanitary Paper Products.
<http://www.environmentalchoice.org.nz/assets/Specifications/ec-13-15-sanitary-paper-products-specification.pdf>

SCOPE

Record books as stationery paper products.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of record books are:

- Forest destruction and potential loss of biodiversity related to the pulp production;
- Energy and water consumption during production of toilet paper;
- Harmful emissions to air and water during pulp and paper production;
- Chemical consumption during production;
- Waste generation and packaging.

The GPP approach should cover therefore:

- Purchase products with a low energy and resource use during processing;
- Purchase products which avoid harmful substances in paper production and bleaching;
- Purchase products with high recycled content;
- Purchase products from legally and sustainably harvested wood.

PRODUCT SPECIFICATIONS

- The supplier shall supply products which are made out of raw materials from at least 50% recycled fibre.
- The supplier shall supply paper which is at least Elementary Chlorine Free (ECF).
- Any paper wrapping and carton box packing must be made from 100% recycled fibre.

Future criteria (1.1.2019):

- Recycled fibre must contain not less than 10 % post-consumer fibre.
- The supplier shall supply paper which is Totally Chlorine Free (TCF).

Post-consumer recycled fibres may come from consumers, offices, printing houses, bookbinders or similar. Fibres from paper mill broke shall not be considered recycled fibres.

Recycled paper fibres include both post-consumer recycled fibres and pre-consumer recycled fibres from paper mills, also known as broke.

Justification:

Paper production from recycled paper is far less environmentally damaging. It avoids destruction of natural forests, reduces water consumption, energy consumption (between 40% and 64%) as well as emissions of chemical substances to the air (74%) and to the water (35%). https://en.wikipedia.org/wiki/Paper_recycling

Recycling quotas adapted to local market.

Conventional bleaching using elemental chlorine produces and releases into the environment large amounts of chlorinated organic compounds, including chlorinated dioxins. Dioxins are highly toxic, and health effects on humans include reproductive, developmental, immune and hormonal problems. The

use of elemental chlorine in the delignification process has been substantially reduced and replaced with ECF (Elemental Chlorine Free) and TCF (Totally Chlorine Free) bleaching processes. ECF bleaching can substantially reduce but not fully eliminate chlorinated organic compounds, including dioxins, from effluent.

EVIDENCE

The supplier must provide evidence that these specifications are met. Especially concerning the origin of raw materials certification schemes or evidence of recycled materials must be provided. Any other appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance.

VERIFICATION

High quality recycled paper may look identical to conventional paper. Be aware that especially on the Philippine market you are likely to encounter paper made from recycled fibre which neither has an official label nor a product mark indicating the recycled content.

Independent testing can be carried out by the Forest Product Research and Development Institute (c/o DOST). No tests for post-consumer content or TCF available so far. [Testing on ECF has yet to be clarified.]

REFERENCES

New Zealand Ecolabelling Trust. 2015. License Criteria for Office Paper and Stationery. <http://www.environmentalchoice.org.nz/assets/Specifications/ec-26-15-office-paper-and-stationery-specification.pdf>

UNEP. 2010. Sustainable Procurement Guidelines. Stationery. Paper (general office use). Product Sheet. http://www.unep.org/resourceefficiency/Portals/24147/scp/sun/facility/reduce/procurement/PDFs/UNSP_Product%20Sheet_Stationery_Paper%20consumables_basic%20and%20advanced_all%20regions.pdf

SCOPE

Copying paper for multi-purpose use. This encompasses unprinted paper for writing, printing and copying purposes sold in sheets or reels.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of multicity paper are:

- Forest destruction and potential loss of biodiversity related to the pulp production;
- Energy and water consumption during production of multicity paper;
- Harmful emissions to air and water during pulp and paper production;
- Chemical consumption during production;
- Waste generation and packaging.

The GPP approach should cover therefore:

- Purchase products with a low energy and resource use during processing;
- Purchase products which avoid harmful substances in paper production and bleaching;
- Purchase products with high recycled content;
- Purchase products from legally and sustainably harvested wood.

PRODUCT SPECIFICATIONS

- The supplier shall supply products which are made out of raw materials from at least 50% recycled fibre.
- The supplier shall supply paper which is at least Elementary Chlorine Free (ECF).
- Any paper wrapping and carton box packing must be made from 100% recycled fibre.

Future criteria (1.1.2019):

- Recycled fibre must contain not less than 10% post-consumer fibre.
- The supplier shall supply paper which is Totally Chlorine Free (TCF).

Post-consumer recycled fibres may come from consumers, offices, printing houses, bookbinders or similar. Fibres from paper mill broke shall not be considered recycled fibres.

Recycled paper fibres include both post-consumer recycled fibres and pre-consumer recycled fibres from paper mills, also known as broke.

Justification:

Paper production from recycled paper is far less environmentally damaging. It avoids destruction of natural forests, reduces water consumption, energy consumption (between 40% and 64%) as well as emissions of chemical substances to the air (74%) and to the water (35%). https://en.wikipedia.org/wiki/Paper_recycling

Recycling quotas adapted to local market.

Conventional bleaching using elemental chlorine produces and releases into the environment large amounts of chlorinated organic compounds, including chlorinated dioxins. Dioxins are highly toxic, and

health effects on humans include reproductive, developmental, immune and hormonal problems. The use of elemental chlorine in the delignification process has been substantially reduced and replaced with ECF (Elemental Chlorine Free) and TCF (Totally Chlorine Free) bleaching processes. ECF bleaching can substantially reduce but not fully eliminate chlorinated organic compounds, including dioxins, from effluent.

EVIDENCE

The supplier must provide evidence that these specifications are met. Especially concerning the origin of raw materials certification schemes or evidence of recycled materials must be provided. Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance.

VERIFICATION

High quality recycled paper may look identical to conventional paper. Be aware that especially on the Philippine market you are likely to encounter paper made from recycled fibre which neither has an official label nor a product mark indicating the recycled content.

Independent testing can be carried out by the Forest Product Research and Development Institute (c/o DOST). No tests for post-consumer content or TCF available so far. [Testing on ECF has yet to be clarified.]

REFERENCES

New Zealand Ecolabelling Trust. 2015. License Criteria for Office Paper and Stationery.
<http://www.environmentalchoice.org.nz/assets/Specifications/ec-26-15-office-paper-and-stationery-specification.pdf>

UNEP. 2010. Sustainable Procurement Guidelines. Stationery. Paper (general office use). Product Sheet.
http://www.unep.org/resourceefficiency/Portals/24147/scp/sun/facility/reduce/procurement/PDFs/UNSP_Product%20Sheet_Stationery_Paper_basic%20and%20advanced_all%20regions.pdf

EPD. 2014. Paper for printing and photocopying.
http://www.epd.gov.hk/epd/english/how_help/green_procure/green_procure1.html

Department of Housing and Public Work (HPW). 2014. Procurement guidance: Sustainable procurement product guide – Office paper. State of Queensland.
<http://www.hpw.qld.gov.au/SiteCollectionDocuments/ProductGuidePaper.pdf>

SCOPE

Garbage bags made of plastic material. This does not preclude procuring agencies from purchasing a trash bag manufactured using another material, such as paper.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of plastic trash bags are:

- Harmful emissions related to the production;
- Energy and resource consumption related to the production;
- Generation of waste related to the disposal.

The GPP approach should cover therefore:

- Purchase products with high recycled content.

PRODUCT SPECIFICATIONS

- The supplier shall supply products which is made of polyethylene (PE).
- The PE should contain a minimum of 30% postconsumer material.

Justification:

Through recycling, the CO₂-emissions of polyethylene production can be reduced by 45% (depending on the recycling quota).

Biodegradable plastic bags are thicker and therefore consume more resources. Usually they also contain fossil based plastics. Also, biodegradability depends on the right conditions (air, moisture, sunlight), which oftentimes do not exist in landfills.

<https://www.umweltbundesamt.de/sites/default/files/medien/461/publikationen/3986.pdf>

EVIDENCE

The supplier must provide evidence that these specifications are met. Especially concerning the origin of raw materials certification schemes or evidence of recycled materials must be provided. Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance.

VERIFICATION

Trash bags usually consist of PE (either in the form of LDPE or HDPE). Differently from PVC which should be avoided, PE burns with only little smoke, which smells like candle smoke, whereas the smoke of PVC is rather poignant.

It is not possible to recognize the recycling content by simple means.

Testing for the type of can be provided by Intertek Testing Services Philippines Inc, testing on the plastic and the recycled content by the Industrial Technology Development Institute (ITDI).

REFERENCES

EPA. 2016. Comprehensive Procurement Guidelines for Non-Paper Office Products.
<https://www.epa.gov/smm/comprehensive-procurement-guidelines-non-paper-office-products#06>

EPD. 2014. Plastic and Rubber Products (Category Code – O).
http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/O03.pdf

The New Zealand Ecolabelling Trust. 2015 Licence Criteria for Recycled Plastic Products.
<http://www.environmentalchoice.org.nz/specifications/published-specifications>

SCOPE

Chairs (indoor or outdoor) made of plastic.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of plastic chairs are:

- Resource consumption related to the production of chairs and materials used (plastics);
- Harmful emissions, especially during the production phase;
- Generation of waste and packaging.

The GPP approach should cover therefore:

- Purchase products which do not contain hazardous substances;
- Purchase products which are made of recycled materials as much as possible and are designed for recycling;
- Avoid packaging waste.

PRODUCT SPECIFICATIONS

- The supplier shall supply products made of plastic materials which do not contain lead, chromium, cadmium, mercury, phthalates, and halogenated organic substances.
- The chairs shall be marked for recycling according to ISO 11469 or equivalent and must not contain additions of other materials that may hinder their recycling.
- The supplier shall supply products which are packaged in recyclable material.

Justification:

The mentioned metals and/or most of their compounds are toxic and/or mutagenic and/or carcinogenic for human beings as well as animals. They accumulate in the biosphere.

Phthalates have various negative health implications, amongst them: Phthalate parent compounds and/or their metabolites have recently been implicated as a cause of breast cancer. Several phthalates are "plausibly" endocrine disruptors, i.e. they interfere with the hormone system. There is an inverse relationship between levels of metabolites of phthalates in the urine of pregnant women and the mental and intellectual development of the offspring. Phthalates are easily released into the environment.

Many halogenated organic substances (organofluorine compounds, organochlorine compounds, organobromine compounds, and organoiodine compounds) like DDT, PCBs etc. have substantial health impacts (toxic, carcinogenic, mutagenic). Even those that might not be hazards in themselves, can present waste disposal issues. Because they do not readily degrade in natural environments, halocarbons tend to accumulate. Incineration and accidental fires can create corrosive by-products such as hydrochloric acid and hydrofluoric acid, and poisons like halogenated dioxins and furans.

The specification on substances corresponds to a GPP specification of Hong Kong.

EVIDENCE

The supplier must provide a list of the additives present in the chairs and the relevant documentation to prove compliance. Any appropriate means of proof demonstrating that the criteria are met will be

accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance.

Bidders must provide a description of the plastic materials and the way in which they are labelled.

The supplier shall declare the compliance with the requirements on packaging waste by submitting a written statement signed by the Chief Executive Director or counterpart or equivalent proofs for these initiatives.

VERIFICATION

Testing for the type of plastic and the composition can be provided by SGS Philippines (metals only).

Signs for Recyclability according to ISO11469 have the following appearance:



The number in the middle indicates the type of plastic.

Non-recyclable packaging material is typically made of composite material, like plastic coated paper.

REFERENCES

EC (2008): EU GPP criteria: Furniture.

http://ec.europa.eu/environment/gpp/pdf/toolkit/furniture_GPP_background_report.pdf

UNEP (2009): Sustainable Procurement Guidelines. Furniture Product Sheet.

http://www.unep.org/resourceefficiency/Portals/24147/scp/sun/facility/reduce/procurement/PDFs/UNSP_Product%20Sheet_Furniture_Basic%20and%20Advanced_all%20regions.pdf

EPD. 2014. Furniture (Category Code – H).

http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/H01.pdf

GPN. 2011. Purchasing Guideline for Office Furniture. <http://www.gpn.jp/guideline/files/english/GPN-GL11.pdf>

Nordic Ecolabelling (2015): Nordic Ecolabelling of Furniture and Fitments. <http://www.nordic-ecolabel.org/criteria/product-groups/?p=2>

SCOPE

Self-ballasted LED lamps for general lighting services with supply voltages above 50 Volt.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of LEDs are:

- Resource consumption related to the production;
- Harmful emissions related to the production and disposal;
- Energy consumption during the use-phase of LEDs;
- Generation of waste and packaging.

The GPP approach should cover therefore:

- Design for long life;
- Safe disposal (recycling, re-using) of final products;
- Purchase energy efficient models;
- Purchase products with a restricted amount of hazardous substances.

PRODUCT SPECIFICATIONS

- The supplier shall supply LEDs which fulfill the specifications according to PNS IEC 62612 (latest version, currently 2014).
- The supplier shall supply products which are packaged in recyclable material.

Justification:

Given that the Philippines have set up a national standard for performance requirements concerning LEDs, it is the best option to use this standard.

The performance requirements of PNS IEC 62612: 2014 are similar to the performance requirements found in other GPP specifications worldwide.

EVIDENCE

The supplier must provide evidence that these specifications are met. All appropriate means of proof will be accepted such as the result of lamp life testing by accredited laboratory or government recognized laboratory.

VERIFICATION

Testing can be provided by the Fuels and Appliance Testing Lab (c/o DOE), TUV Rheinland, and the Scientific Environmental and Analytical Laboratory and Services, Inc. (SEALS).

Non-recyclable packaging material is typically made of composite material, like plastic coated paper.

REFERENCES

EC. 2012. EU GPP Criteria for Indoor Lighting.

http://ec.europa.eu/environment/gpp/pdf/criteria/indoor_lighting.pdf

EPD. 2014. Electrical and Gas Appliances and Light Fittings (Category Code – F).

http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/F17.pdf

Government Green Procurement (GGP) - Guidelines for Government Procurers (2014) Malaysia.

SCOPE

Toilet bowl and urinal cleaner.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of toilet bowl and urinal cleaners are:

- Harmful emissions to water (aquatic toxicity) related to the use of the cleaner;
- Health impacts of chemical substances;
- Generation of packaging waste.

The GPP approach should cover therefore:

- Purchase products which do contain less harmful substances;
- Safe disposal of final products.

PRODUCT SPECIFICATIONS

- The supplier shall provide a cleaner which is not chlorine based and does not contain inorganic acids.
- The supplier shall supply products with adequate instructions for proper use and disposal.

Justification:

Inorganic acids (e.g. hydrochloric acid, nitric acid, sulfuric acid, phosphoric acid) damage the aquatic environment as these substances cannot be eliminated by waste water treatment plants. The same holds true for other chlorine compounds found in cleaners.

The specification on substances reflects recommendations by UNEP.

EVIDENCE

Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance. The supplier must provide evidence that the specifications are met. A list of all ingredients constituting greater than 0.1% of the product for each of the cleaning products must be supplied. The supplier shall also provide documentation from the manufacturer stating that it does not contain the specified substances mentioned above by submitting information on identity and chemical and physical properties, health hazards and precautions for use and safe handling as well as disposal.

VERIFICATION

Testing for the composition of the product can be provided by SGS Philippines.

Instructions for use and disposal should point out that the product should be used completely whenever possible. Also, instructions should clearly indicate the necessary product quantity which is needed for cleaning purposes and recommend avoiding higher dosage. Instructions should also recommend options how to dispose the container in order to allow for recycling.

REFERENCES

UNEP 2008. Sustainable Procurement Guidelines Cleaning Products and Services. Product Sheet. Basic and Advanced Requirements, Region 2 (Latin America, Asia, Africa).
http://www.unep.org/resourceefficiency/Portals/24147/scp/sun/facility/reduce/procurement/PDFs/UNSP_Product%20Sheet_Cleaning%20products_Basic%20and%20Advanced_Region2.pdf

EU GPP Criteria for Cleaning Products & Services
<http://ec.europa.eu/environment/gpp/pdf/criteria/cleaning.pdf>

EU Green Public Procurement Cleaning Products and Services Technical Background Report 2011
http://ec.europa.eu/environment/gpp/pdf/tbr/cleaning_tbr.pdf

Österreichisches Umweltzeichen 2011. Richtlinie UZ. 30. Allzweck- und Sanitärreiniger Version 5.2
http://www.umweltzeichen.at/richtlinien/Uz30_R5.2a_Allzweckreiniger_2011.pdf

SCOPE

Detergent powder as cleaning product used by cleaning services or internal personnel for all purposes.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of detergent powder are:

- Harmful emissions to water (aquatic toxicity) related to the use of the soap;
- Health impacts of chemical substances;
- Generation of packaging waste.

The GPP approach should cover therefore:

- Purchase products which do contain less harmful substances;
- Ensure the recyclability of the packaging used and increase the use of recycled packaging.

PRODUCT SPECIFICATIONS

- The supplier shall supply products which do not contain ethylene-diamine-tetra-acetate (EDTA) nor alkyl phenol ethoxylates (APEO).
- The supplier shall supply products with adequate instructions for proper use and disposal.

Justification:

Ethylenediaminetetraacetic acid (EDTA) is very persistent in the biosphere. Its contribution to heavy metals bioavailability and remobilization processes in the environment is a major concern.

Alkylphenol ethoxylates (APEOs) are surfactants. APEOs are slow to biodegrade and tend to bioaccumulate. They are toxic to aquatic organisms and are endocrine disruptors, i.e. they influence normal hormone secretion in human beings and animals.

The specification on substances reflects recommendations by UNEP.

EVIDENCE

Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance. The supplier must provide evidence that the specifications are met. A list of all ingredients constituting greater than 0.1% of the product for each of the cleaning products must be supplied. The supplier shall also provide documentation from the manufacturer stating that it does not contain the specified substances mentioned above by submitting information on identity and chemical and physical properties, health hazards and precautions for use and safe handling as well as disposal. Documentation can include safety data sheets such as technical data sheets, third party lab test reports etc.

The supplier shall declare compliance with the requirements on packaging by submitting a written statement signed by the Chief Executive Director or counterparts.

VERIFICATION

Testing for the composition of the product can be provided by SGS Philippines.

Instructions for use and disposal should point out that the product should be used completely whenever possible. Also, instructions should clearly indicate the necessary product quantity which is needed for cleaning purposes and recommend avoiding higher dosage. Instructions should also recommend options how to dispose the container in order to allow for recycling.

REFERENCES

UNEP 2008. Sustainable Procurement Guidelines Cleaning Products and Services Product Sheet. Basic and Advanced Requirements, Region 2 (Latin America, Asia, Africa).
http://www.unep.org/resourceefficiency/Portals/24147/scp/sun/facility/reduce/procurement/PDFs/UNSP_Product%20Sheet_Cleaning%20products_Basic%20and%20Advanced_Region2.pdf

UNEP 2008. Sustainable Procurement Guidelines Cleaning Products and Services. Background Report.
http://www.unep.org/resourceefficiency/Portals/24147/scp/sun/facility/reduce/procurement/PDFs/UNSP_Cleaning%20Products%20and%20Services_Background%20document.pdf

EPD 2011. Cleansing Products. All Purpose Cleaners C01
http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/C01.pdf

Green Seal. 2013. Green Seal Standard for Hand Cleaners for industrial and institutional use.
<http://www.greenseal.org/GreenBusiness/Standards.aspx?vid=ViewStandardDetail&cid=0&sid=29>

SCOPE

Liquid hand cleaners offered in bathrooms or kitchen facilities.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of liquid hand soap are:

- Harmful emissions to water (aquatic toxicity) related to the use of the soap;
- Health impacts of chemical substances;
- Generation of packaging waste.

The GPP approach should cover therefore:

- Purchase products which do contain less harmful substances;
- Ensure the recyclability of the packaging used and increase the use of recycled packaging.

PRODUCT SPECIFICATIONS

- The supplier shall supply products which do not contain ethylene-diamine-tetra-acetate (EDTA) nor alkyl phenol ethoxylates (APEO).
- The supplier shall supply products with adequate instructions for proper use and disposal.

Justification:

Ethylenediaminetetraacetic acid (EDTA) is very persistent in the biosphere. Its contribution to heavy metals bioavailability and remobilization processes in the environment is a major concern.

Alkylphenol ethoxylates (APEOs) are surfactants. APEOs are slow to biodegrade and tend to bioaccumulate. They are toxic to aquatic organisms and are endocrine disruptors, i.e. they influence normal hormone secretion in human beings and animals.

The specification on substances reflects recommendations by UNEP.

EVIDENCE

Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance. The supplier must provide evidence that the specifications are met. A list of all ingredients constituting greater than 0.1% of the product for each of the cleaning products must be supplied. The supplier shall also provide documentation from the manufacturer stating that it does not contain the specified substances mentioned above by submitting information on identity and chemical and physical properties, health hazards and precautions for use and safe handling as well as disposal. Documentation can include safety data sheets such as technical data sheets, third party lab test reports etc.

The supplier shall declare compliance with the requirements on packaging by submitting a written statement signed by the Chief Executive Director or counterparts.

VERIFICATION

Testing for the composition of the product can be provided by SGS Philippines/ Intertek Testing Services Philippines Inc.

Instructions for use and disposal should point out that the product should be used completely whenever possible. Also, instructions should clearly indicate the necessary product quantity which is needed for cleaning purposes and recommend avoiding higher dosage. Instructions should also recommend options how to dispose the container in order to allow for recycling.

REFERENCES

UNEP 2008. Sustainable Procurement Guidelines Cleaning Products and Services Product Sheet. Basic and Advanced Requirements, Region 2 (Latin America, Asia, Africa).
http://www.unep.org/resourceefficiency/Portals/24147/scp/sun/facility/reduce/procurement/PDFs/UNSP_Product%20Sheet_Cleaning%20products_Basic%20and%20Advanced_Region2.pdf

UNEP 2008. Sustainable Procurement Guidelines Cleaning Products and Services. Background Report.
http://www.unep.org/resourceefficiency/Portals/24147/scp/sun/facility/reduce/procurement/PDFs/UNSP_Cleaning%20Products%20and%20Services_Background%20document.pdf

EDP 2011. Cleansing Products. Soap Toilet Liquid C04
http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/C04.pdf

Green Seal. 2013. Green Seal Standard for Hand Cleaners for industrial and institutional use.
<http://www.greenseal.org/GreenBusiness/Standards.aspx?vid=ViewStandardDetail&cid=0&sid=29>

SCOPE

Disinfectant spray for killing viruses and bacteria in aerosol form.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of disinfectant spray are:

- Harmful emissions related to the use and production of disinfectant spray;
- Aquatic toxicity due to the use of disinfectant spray;
- Resource consumption related to the packaging and production;
- Generation of waste and packaging.

The GPP approach should cover therefore:

- Purchase products with a restricted amount of hazardous substances;
- Purchase products which biodegrade and are environmentally innocuous;
- Ensure the recyclability of the packaging used and increase the use of recycled packaging;
- Safe disposal of final products.

PRODUCT SPECIFICATIONS

- The supplier shall supply products which do not contain ethylene-diamine-tetra-acetate (EDTA) nor alkyl phenol ethoxylates (APEO).
- The supplier shall supply products with detailed instructions on maximizing product performance and indications for the proper waste disposal and the recyclability of the container.

Justification:

Ethylenediaminetetraacetic acid (EDTA) is very persistent in the biosphere. Its contribution to heavy metals bioavailability and remobilization processes in the environment is a major concern.

Alkylphenol ethoxylates (APEOs) are surfactants. APEOs are slow to biodegrade and tend to bioaccumulate. They are toxic to aquatic organisms and are endocrine disruptors, i.e. they influence normal hormone secretion in human beings and animals.

The specification on substances reflects recommendations by UNEP and other GPP requirements.

EVIDENCE

Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance. The supplier must provide evidence that the specifications are met. A list of all ingredients constituting greater than 0.1% of the product for each of the cleaning products must be supplied. The supplier shall also provide documentation from the manufacturer stating that it does not contain the specified substances mentioned above by submitting information on identity and chemical and physical properties, health hazards and precautions for use and safe handling as well as disposal. Documentation can include safety data sheets such as technical data sheets, third party lab test reports etc.

The supplier shall declare compliance with the requirements on packaging by submitting a written statement signed by the Chief Executive Director or counterparts.

VERIFICATION

Testing for the composition of the product can be provided by SGS Philippines. and Intertek Testing Services Philippines Inc.

Instructions for use and disposal should point out that the product should be used completely whenever possible. Also, instructions should clearly indicate the necessary product quantity which is needed for cleaning purposes and recommend avoiding higher dosage. Instructions should also recommend options how to dispose the container in order to allow for recycling.

REFERENCES

EPB 2011. Cleansing Products. Disinfectants C07

http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/C06.pdf

UL. 2012. Standards for Sustainability for Disinfectants and Disinfectant Cleaners.

http://ulstandards.ul.com/standard/?id=2794_1

UNEP. 2008. Sustainable Procurement Guidelines for Cleaning Products and Services.

https://www.ungm.org/Areas/Public/Downloads/UNSP_Cleaning%20products_Product%20Sheet%20Region2.pdf

UNEP 2008. Sustainable Procurement Guidelines Cleaning Products and Services. Background Report.

http://www.unep.org/resourceefficiency/Portals/24147/scp/sun/facility/reduce/procurement/PDFs/UNSP_Cleaning%20Products%20and%20Services_Background%20document.pdf

4. Specifications for Non-Common-Use Supplies and Equipment Products

Technical specification for

COMPUTERS, MONITORS AND LAPTOPS

SCOPE

Environmentally-friendly ICT equipment including desktop PCs, laptops (notebooks), palmtop computers and computer display devices like CRT, LCD and LED monitors.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of computers, monitors and laptops are:

- Energy consumption, especially during the use phase;
- Resource consumption related to the production of IT products (esp. rare earth metals, plastics);
- Harmful emissions related to the production of IT products (raw material acquiring, manufacture of components);
- Generation of waste material through packaging and end-use.

The GPP approach should cover therefore:

- Purchase energy efficient models;
- Purchase products with a restricted amount of hazardous constituents.
- Design for recycling, longer life and promote take back options;
- Safe disposal (recycling, re-using) of final products;

PRODUCT SPECIFICATIONS

- The suppliers shall supply ICT equipment which fulfils at least ENERGY STAR 6.1 for computers and 7.0 for monitors criteria.
- The supplier shall supply products with a visible On/Off switch.
- In case of desktop computers: The supplier shall supply products which are designed so that the memory, hard disk and CD drive are readily accessible and can be changed easily for upgrades.
- The supplier shall supply notebooks and desktop computers where the availability of replacement batteries and power supplies is guaranteed for at least 5 years after end of production.
- The supplier shall supply the products in recyclable packages and shall provide a packaging take-back service.

Justification:

Reference to the Energy Star for computers and similar products is very common in GPP. The same regards criteria referring to product lifetime/resource efficiency.

Apart from minor adaptations the specifications correspond to recommendations by UNEP.

EVIDENCE

All offered products must meet the latest Energy Star standards for energy performance. For products which do not carry an Energy Star label, suppliers are required to submit an appropriate means of proof of energy consumption levels such as a technical dossier of the manufacturer or a test report from a recognised body to demonstrate compliance with this requirement.

The supplier shall declare, that requirements concerning the longer-life of the products are met by providing warranty certificates, and guarantees on the availability of replacement parts.

The supplier shall declare the compliance with providing a packaging take-back service by providing a written statement signed by the Chief Executive Officer or counterpart of the company, accompanied by relevant documentation.

VERIFICATION

The database of the energy star programme <https://www.energystar.gov/> lists the products certified by the energy star. Product certification relies on self-declaration based on testing facilities reports. Independent testing can be carried out by TUV Rheinland [yet to be clarified for monitors].

Accessibility of memory, hard disk and CD drive has to be judged by a technician.

Non-recyclable packaging material is typically made of composite material, like plastic coated paper.

REFERENCES

EPD. 2014. Computer Equipment and Products (Category Code – D).
http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/D01.pdf

European Commission. 2011. Green Public Procurement – Office IT equipment.
http://ec.europa.eu/environment/gpp/pdf/tbr/office_it_equipment_tbr.pdf

Green Choice Philippines. NELP-GCP 20080024. Computer Monitor.
http://www.pcepsdi.org.ph/downloads/Computer_Monitor.pdf

Nordic Ecolabelling. 2015. Nordic Ecolabelling of Computers.
<http://www.nordic-ecolabel.org/criteria/product-groups/>

UNEP. 2008. Sustainable Procurement Guidelines Product Sheet- Computers and Monitors.
http://www.greeningtheblue.org/sites/default/files/2%20Computers%20and%20Monitors%20-%20Product%20sheet_0.pdf

SCOPE

Copiers including electro-photographic copiers, direct thermal copiers, etc.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of copiers are:

- Energy consumption during the use phase;
- Resource consumption related to the production of the copiers and the paper as well as toner consumption during operation;
- Harmful emissions;
- Generation of waste through packaging and end-phase.

The GPP approach should cover therefore:

- Purchase products with a restricted amount of hazardous substances.
- Purchase products with an efficient toner and paper management;
- Purchase energy efficient models;
- Design for recycling, longer life and promote take-back options;
- Ensure the recyclability of the packaging used and increase the use of recycled packaging;
- Safe disposal (recycling, re-using) of final products;

PRODUCT SPECIFICATIONS

- The supplier shall supply products which comply with the latest version of the International ENERGY STAR requirements (currently version 2.0 for Imaging Equipment).
- The supplier shall supply products which contain user instructions for green performance management.
- The supplier shall supply products which must be capable of using recycled content paper without voiding the manufacturer's warranty.

Future criteria (1.1.2019):

- The supplier shall supply products with a function to reduce the quantity of paper consumed, especially 2-side copying for all copiers with a monochrome printing/copying speed of 25 images per minute for A4 size paper.

Justification:

Reference to the Energy Star for copying machines is common in GPP due to their energy efficiency performance.

Double-sided copying is required in a number of other GPP specifications (e.g. EU and Australia/New Zealand).

EVIDENCE

The supplier must provide evidence that the specifications are met.

All offered products must meet the latest Energy Star standards for energy performance. Documentation proving compliance must be provided. Suppliers are required to disclose energy consumption of the offered products.

VERIFICATION

The database of the energy star programme <https://www.energystar.gov/> lists the products certified by the energy star. Product certification relies on self-declaration based on testing facilities reports. Independent testing can be carried out by TUV Rheinland [has yet to be clarified].

User instructions should contain information on power management and saving paper while copying.

REFERENCES

European Union 2014. Green Public Procurement for Imaging Equipment Technical Background Report. <http://ftp.jrc.es/EURdoc/JRC88789.pdf>

Australasian Procurement and Construction Council (APCC). 2014. Procurement guidance: Sustainable procurement product guide – Business machines. http://www.apcc.gov.au/ALLAPCC/APCC%20PUB_Sustainable%20Procurement%20Product%20Guide%20-%20Business%20Machines%20-%20May%202010.pdf

EPD. 2014. Computer equipment and products. Printers D05. http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/D05.pdf

GPN. 2014. GPN-GL2 Purchasing Guidelines for Copiers, Printers, Facsimile Machines. <http://www.gpn.jp/guideline/files/english/GPN-GL2.pdf>

ENERGY STAR® Program Requirements for Imaging Equipment. Energy Star 2.0 https://www.energystar.gov/sites/default/files/FINAL%20Version%202.0%20Imaging%20Equipment%20Program%20Requirements%20%28Rev%20Oct-2014%29_0.pdf

REFRIGERATORS AND FREEZERS

SCOPE

Refrigerators, freezers and refrigerator/freezer combinations.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts for fridges and freezers are:

- Energy consumption, especially during use phase;
- Resource consumption related to the production of refrigerators and freezers;
- Harmful emissions related to production of refrigerators and freezers and the operation phase (especially VOCs and ozone depletion emissions);
- Generation of waste through packaging.

The GPP approach should cover therefore:

- Purchase energy efficient models;
- Exclude products with contribute to ozone depletion;
- Design for recycling, longer life and promote take-back options;
- Safe disposal (recycling, re-using) of final products.

PRODUCT SPECIFICATIONS

- The suppliers shall supply refrigerators and freezers which fulfils at least ENERGY STAR 5.0.
- The supplier shall ensure that the products do not contain “controlled refrigerants” as defined under the Ozone Layer Protection Regulation.
- The supplier shall ensure that the products are repairable and that replacement parts are available (for minimum of 10 years after end of production).
- The supplier shall supply the products in recyclable packages.

Future criteria (1.1.2019):

- The supplier shall supply refrigerators and freezers which have four stars according to DPNS 396-2 (latest version).

Justification:

Most GPP schemes refer to the energy star. In future, once the new national system for energy efficiency classification of refrigerators and freezers has been introduced, there is no need to refer further to the Energy Star.

Exclusion of ozone depleting substances for refrigerants and similar products is common.

The star rating under the current national standard will be introduced only in 2017 and 2018.

EVIDENCE

The supplier must provide evidence that these specifications are met. Especially for the requirement concerning ozone depleting substances documentation must be provided. Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance.

Also, documentation proving energy star certification (and later four star rating according to DPNS 396-2) must be provided.

The supplier shall declare the compliance with providing replacement parts and providing a packaging take-back service by providing a written statement signed by the Chief Executive Officer or counterpart of the company, accompanied by relevant documentation.

VERIFICATION

The database of the energy star programme <https://www.energystar.gov/> lists the products certified by the energy star. Product certification relies on self-declaration based on testing facilities reports.

Independent testing on energy efficiency can be carried out by TUV Rheinland. Regarding the refrigerant a testing facility has yet to be identified.

Non-recyclable packaging material is typically made of composite material, like plastic coated paper.

REFERENCES

ENERGY STAR. 2014. Program Requirements for Fridges and Freezers– Partner Commitment. <https://www.energystar.gov/products/appliances/freezers/partners>

EPD. 2014. Electrical and Gas Appliances and Light Fittings (Category Code – F). http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/F06.pdf

GBS (Green Buying Standard) (2015): Government Buying Standards for Fridges and Freezers. UK Department for Environment, Food and Rural Affairs. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/482102/gbs-fridge-freezers-2015.pdf

Nordic Ecolabelling (2015): Nordic Ecolabelling of White Goods. Version 5.1. <http://www.nordic-ecolabel.org/Templates/Pages/CriteriaPages/CriteriaGetFile.aspx?fileID=1331>

SCOPE

Room air conditioners (RACs) designed as a unit for mounting in a window or through a wall to provide conditioned air to an enclosed space.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of central and air room conditioners are:

- Energy consumption especially during the use phase;
- Resource consumption related to the production of ACs;
- Harmful emissions;
- Generation of waste through packaging and end-use.

The GPP approach should cover therefore:

- Purchase energy efficient models;
- Purchase products with a restricted amount of hazardous substances;
- Design for recycling, longer life and promote take back options;
- Safe disposal (recycling, re-using) of final products.

PRODUCT SPECIFICATIONS

- The suppliers shall supply air conditioners which fulfils at least ENERGY STAR 4.0.
- The supplier shall ensure that the products do not contain “controlled refrigerants” as defined under the Ozone Layer Protection Regulation.
- The supplier shall ensure that the products are repairable and that replacement parts are available (for minimum of 10 years after end of production).
- The supplier shall supply the products in recyclable packages and shall provide a packaging take-back service.

Future criteria (1.1.2019):

- The supplier shall supply air conditioners which have four stars according to DPNS 396-1 (latest version).

Justification:

Most GPP schemes refer to the energy star. In future, once the new national system for energy efficiency classification of air conditioners has been introduced, there is no need to refer further to the Energy Star.

Exclusion of ozone depleting substances for air conditioners is common due to their effect

The star rating under the current national standard will be introduced only in 2017 and 2018.

EVIDENCE

The supplier must provide evidence that these specifications are met. Especially for the requirement concerning ozone depleting substances documentation must be provided. Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance.

Also, documentation proving energy star certification (and later four star rating according to DPNS 396-1) must be provided.

The supplier shall declare the compliance with providing replacement parts and providing a packaging take-back service by providing a written statement signed by the Chief Executive Officer or counterpart of the company, accompanied by relevant documentation.

VERIFICATION

The database of the energy star programme <https://www.energystar.gov/> lists the products certified by the energy star. Product certification relies on self-declaration based on testing facilities reports.

Independent testing on energy efficiency can be carried out by TUV Rheinland. Regarding the refrigerant a testing facility has yet to be identified.

Non-recyclable packaging material is typically made of composite material, like plastic coated paper.

REFERENCES

ENERGY STAR. 2015. ENERGY STAR® Program Requirements for Room Air Conditioners, Version 4.0.
<https://www.energystar.gov/sites/default/files/specs/ENERGY%20STAR%20Version%203.1%20Room%20Air%20Conditioner%20Program%20Requirements.pdf>

GPN. 2014. GLPN-GL10 Purchasing Guidelines for Air Conditioners.
<http://www.gpn.jp/guideline/files/english/GPN-GL10.pdf>

EPD 2014. Electrical and Gas Appliances and Light Fittings. Room Air cooler F07
http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/F07.pdf

SCOPE

Paints and varnishes which are water-, solvent-, and oil-based.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of paints and varnishes are:

- Harmful emissions (to air and water (aquatic toxicity)) related to use and production, and with implications to human health;
- Resource consumption related to the production of paints and varnishes;
- Generation of waste through packaging.

The GPP approach should cover therefore:

- Purchase products with a restricted amount of hazardous substances;
- Minimize the negative environmental impact of paint production;
- Purchase products with low waste generation.

PRODUCT SPECIFICATIONS

- The product shall not contain mercury, lead, cadmium, hexa-valent chromium, barium, antimony, as well as tributyltin (TBT) and triphenyltin (TPT). If the above substances exist in the product as impurities or contaminant, their total weight shall be less than 0.1% of the product. The use of Bariumsulfate (Barite) is excluded from this limitation.
- The packaging shall be accompanied by a brief statement discouraging improper disposal of the material and encouraging consultation with local authorities for disposal requirements or recycling opportunities as specified in RA 9003 under article 4.

Justification:

Substance related specifications correspond to the GPP specifications used in Malaysia and specifications of GCP. Similar criteria exist e.g. in Hong Kong.

Mercury and most of its compounds are extremely toxic. The specified heavy metals (lead, cadmium, hexa-valent chromium, barium, antimony) are toxic, some also bio accumulative. TBT and TPT have been shown to harmfully affect many layers of the ecosystem, even at very low levels. Their use is banned in many parts of the world.

EVIDENCE

The supplier shall provide a statement that the product does not contain hazardous substances mentioned above by submitting test reports. The supplier shall submit Material Safety Data Sheets (MSDS).

The supplier shall declare the compliance with the requirements on recycling and safe disposal of waste by providing a written statement signed by the Chief Executive Officer or counterpart of the company, accompanied by relevant documentation.

VERIFICATION

Independent testing can be carried out by Intertek Testing Services Philippines Inc. and for some substances by Sentrotek and SGS Philippines.

REFERENCES

Government Green Procurement (GGP) - Guidelines for Government Procurers (2014) Malaysia.

EPD. 2014. Computer Equipment and Products (Category Code – D).
http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/B03.pdf

GREEN CHOICE PHILIPPINESGCP – 2007013: WATER BASEDPAINT
http://www.pcepsdi.org.ph/downloads/Water_Based_Paint.pdf

GREEN CHOICE PHILIPPINESGCP – 2007012: OILBASEDPAINT
http://www.pcepsdi.org.ph/downloads/Oil_Based_Paint.pdf

Nordic Ecolabelling of Indoor paints and varnishes. Version 3.1 • 05 November 2015 - 31 December 2019
<http://www.nordic-ecolabel.org/Templates/Pages/CriteriaPages/CriteriaGetFile.aspx?fileID=1666>

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SCOPE

Textiles like uniforms or work clothes. This covers clothing (outer wear like T-Shirts, Polo Shirts, vests as well as intimate apparel and hosiery) and accessories (headwear, gloves) made of textiles, interior textiles and fibres, yarn and fabric. Yarn can be made of cotton, silk, wool, other vegetable fibres and man-made fibres. Woven fabric additionally includes knit fabric and non-woven fabric industrial fabrics.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of textiles are:

- Ecosystem destruction related to the cultivation of natural fibers like cotton;
- Hazardous substances and harmful emissions related to the production of textiles (with possible health impacts during the use phase);
- Resource consumption (energy and water) related to the production of textiles;
- Generation of waste and packaging material.

The GPP approach should cover therefore:

- Purchase products with a restricted amount of hazardous substances used during the processing;
- Purchase products with high water and energy use efficiency during processing;
- Purchase products made of sustainable produced fibre;
- Purchase products of good quality and which are long-lasting.

PRODUCT SPECIFICATIONS

- The amount of free and partly hydrolysable formaldehyde in the final product shall not exceed 80 ppm for products that come into direct contact with the skin and 300 ppm for all other products.
- The supplier shall supply products made of organically produced textiles when possible.
- The supplier shall supply products which are packaged in recyclable material.

Justification:

Depending on processing and type of fibres textiles can contain numerous different harmful substances. Reference to formaldehyde is one first step to restrict the use of such substances. Formaldehyde is toxic and carcinogenic at certain concentrations.

The specification on formaldehyde is similar to GPP specifications in various other countries.

EVIDENCE

The supplier must provide evidence that these specifications are met. Especially for the requirement the product does not contain hazardous substances mentioned above documentation must be provided. Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance.

The supplier shall provide evidence of the origin of the fibre used and the organic nature of their production in case of organic certified fibre by providing specific certification or equivalent documents.

The supplier shall declare the compliance with the requirements on packaging by providing a written statement signed by the Chief Executive Officer or counterpart of the company, accompanied by relevant documentation.

VERIFICATION

Formaldehyde has a distinctive strong, pungent odor. Therefore, it is easy to recognize higher concentrations in textiles.

Testing can be carried out at Intertek Testing Services Philippines Inc., SGS Philippines and Ostrea Mineral Laboratories.

Non-recyclable packaging material is typically made of composite material, like plastic coated paper.

REFERENCES

Malta. National Green Public Procurement Guidelines
https://environment.gov.mt/en/decc/Documents/environment/gpp/Textiles_V1.1.pdf

EU. 2012. EU GPP Criteria for Textiles.
<http://ec.europa.eu/environment/gpp/pdf/criteria/textiles.pdf>

GPN. 2008. Purchasing Guidelines for Uniforms and Workwear.
<http://www.gpn.jp/guideline/files/english/GPN-GL13.pdf>

PWGCS. 2011. Green Procurement Plan Part B- Scorecard Clothing and Textiles.
<http://www.tpsgc-pwgsc.gc.ca/app-acq/documents/ae-gp/vt-ct-eng.pdf>

EPD. 2014. Textile Materials and Garment (Category Code – T).
http://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/T01.pdf

SCOPE

Toilets (toilet suites, toilet flushing systems) and urinals (urinal suites and urinal flushing system) in existing buildings.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of toilets and urinals are:

- Water consumption;
- Resource consumption related to the production of toilets and urinals;
- Generation of packaging waste.

The GPP approach should cover therefore:

- Purchase products with high water-efficiency during operation;
- Purchase products which are long-lasting and have maintenance service;
- Purchase products with a high recycled content if possible or which are recyclable.

PRODUCT SPECIFICATIONS

- The nominal full flush volume shall not exceed 6.0 l/flush (for urinals 2.0 l/flush).
- Toilets (toilet suites delivering a full flush volume of more than 4.0 litres and toilet flushing systems shall be equipped with a water -saving device. The reduced flush volume shall not exceed 3.0 l/flush.
- The supplier shall supply products with a warranty for repair or replacement of minimum four years.
- The supplier shall supply products which are packaged in materials that should be recyclable.

Justification:

The specifications on water consumption correspond to specifications used in GPP in many other countries.

EVIDENCE

The supplier must provide evidence that these specifications are met. Especially for the flushing requirements documentation must be provided. Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer or a test report from a recognised body showing compliance.

The supplier shall declare the compliance with the requirements on full maintenance service during the life-span of the product and warranty by showing a written statement, warranty certificates or equivalent proof.

The supplier shall declare the compliance with the requirements on recyclability of the packaging material used by providing a written statement signed by the Chief Executive Officer or counterpart of the company, accompanied by relevant documentation.

VERIFICATION

A skilled technician will be able to measure the flush volume. A testing facility could not yet be identified.

REFERENCES

EC. 2013. EU GPP Criteria Toilets and Urinals.

http://ec.europa.eu/environment/gpp/pdf/criteria/toilets/criteria_Toilets_en.pdf

JRC 2013. Development of EU Ecolabel and GPP Criteria for Flushing Toilets and Urinals-Technical Report. <http://ftp.jrc.es/EURdoc/JRC85991.pdf>

GPN. 2007. Purchasing Guidelines for Toilet Facilities.

<http://www.gpn.jp/guideline/files/english/GPN-GL16.pdf>

TEI. 2012. TGL-5-R3-11 Flushing Toilets.

<http://www.tei.or.th/greenlabel/Eng%20PDF/TGL-5-R3-11.pdf>

SCOPE

Light-duty vehicles and light-duty trucks for ordinary use (for example official vehicles, vehicles of inspection bodies, delivery vans or equipment for gardening).

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of vehicles are:

- Air pollution through the emission of exhaust gases;
- Contribution to climate change through the emission of greenhouse gases;
- Resource consumption related to the production of vehicles;
- Generation of waste.

The GPP approach should cover therefore:

- Purchase products with low emissions;
- Purchase products with low waste generation.

PRODUCT SPECIFICATIONS

- The supplier shall ensure that the vehicle meets the EURO IV Standard.
- The supplier shall provide a guarantee for the vehicle for a period of at least 3 years or 100,000 km, whichever comes first.
- The supplier shall demonstrate guarantee the availability of parts for the specific vehicle model for at least 7 years from the time production of the particular model ceases.

Justification:

EURO IV corresponds to current national standards. The EURO IV standard regulates emissions of various harmful substances i.a. oxides of nitrogen, carbon monoxide.
Reference to EURO Standards is common practice in GPP.

EVIDENCE

The supplier shall give information about the emissions of the vehicles by presenting the technical sheets of the vehicle.

The offer of the bidder has to include the required guarantee/warranty.

Bidder must provide a written guarantee that the criterion concerning the availability of parts will be met.

VERIFICATION

Usually, the technical specifications of each car should contain the information if it complies with the EURO IV standard. But, validated information can only be obtained by a testing facility. [The appropriate testing facility has yet to be determined]

REFERENCES

UNEP. 2011. Sustainable Procurement Guidelines Vehicles Product Sheet.
http://www.greeningtheblue.org/sites/default/files/UNSP_Product%20Sheet_Vehicles_basic%20and%20advanced_all%20regions_0.pdf

UNEP. 2011. Sustainable Procurement Vehicles Background Report.
http://www.unep.org/resourceefficiency/Portals/24147/scp/sun/facility/reduce/procurement/PDFs/UNSP_Background%20report_Vehicles.pdf

European Commission 2011: Green Public Procurement Transport, Technical Background Report.
Report by BRE.
http://ec.europa.eu/environment/gpp/pdf/tbr/transport_tbr.pdf

PWGSC. 2014. Green Procurement Scorecard: Passengers Vehicles and Light Trucks.
<http://www.tpsgc-pwgsc.gc.ca/app-acq/ae-gp/pclt-vtclt-eng.html>

SCOPE

Food and catering services which range from Quick Service Restaurants, Canteens and Cafeterias, to Catering Services, Casual Dining Establishments, and Fine-dining Restaurants.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of Food and Catering Services are:

- Consumption of raw materials and destruction of ecosystems related to the purchased products;
- Water and energy consumption during processing of food;
- Generation of waste through packaging and food waste.

The GPP approach should cover therefore:

- Purchase of environmentally responsible food and beverages;
- Purchase products and services which ensure water and energy efficiency;
- Purchase products and services which are offered under sustainable practices;
- Decrease the quantity of packaging used and waste produced.

SPECIFICATIONS

- The service supplier shall have its own environmental policy. The environmental policy shall cover environmental procurement, the reduction of waste and energy consumption, and water saving.
- The service supplier shall provide local or regional products or products which are produced in a sustainable way (e.g. produced according to good agriculture practices, organic, avoiding overfishing, no products from threatened species) when offering food and beverages.
- The service supplier shall provide a vegetarian offer.
- The service supplier shall eliminate the use of non-essential disposable products like plastic bags, single-use utensils, etc. When disposable products are used, the supplier shall use recycled materials where possible.
- The service supplier shall post its environmental policy in places where employees can easily notice them.

Justification:

Requesting an environmental management system would be over-ambitious. But, requiring an environmental policy is a good way to promote environmentally sensitive management of the service provider. Asking for an environmental policy provides direction and requires the supplier to reflect on its environmental impact. Specific requirements on food products and waste reduction substantiate the environmental policy.

EVIDENCE

Services suppliers shall provide evidence that they meet these criteria in form of a written statements signed by the Chief Executive Director or counterparts, accompanied by relevant documentation.

The service supplier must submit a copy of its environmental policy signed by the Chief Executive Director or counterparts, including the required elements, and indicate how it is made available to guests and staff personnel.

Service suppliers must declare compliance with the requirements on waste and packaging by showing packaging samples or proving internal waste reduction management initiatives.

VERIFICATION

Apart from checking the documentation, verification can include further steps:

Existence and placement of the environmental policy can be checked by an on-site visit. An On site-visit can also serve to look at the use of disposable containers.

For the characteristics of the food (local, organic, etc.) invoices can be checked.

Energy efficient indoor lighting relates to the use of compact fluorescent lamps (CFLs) and LEDs.

REFERENCES

EC. 2008. Food and Catering Services Background Product Report.
http://ec.europa.eu/environment/gpp/pdf/toolkit/food_GPP_background_report.pdf

EEB. 2016. Revision of the EU Green Public Procurement Criteria for Food and Catering Services.
<http://www.eeb.org/index.cfm/library/revision-of-the-eu-green-public-procurement-criteria-for-food-and-catering-services-eeb-comments/>

GPN. 2009. Purchasing Guidelines for Food (Processed Food).
<http://www.gpn.jp/guideline/files/english/GPN-GL17.pdf>

Green Seal. 2014. Green Seal Standard for Restaurants and Food Services.
http://www.greenseal.org/Portals/0/Documents/Standards/GS-55/GS-55_Ed1-0_Restaurants_and_Food_Services.pdf

GSA. 2014. Cafeteria and Food Services.
<https://sftool.gov/greenprocurement/green-services/9/cafeteria-food-services>

UNEP 2011. Cafeterias, Food & Kitchen equipment. Background report.
http://www.unep.org/resourceefficiency/Portals/24147/scp/sun/facility/reduce/procurement/PDFs/UNSP_Background%20report_Cafeterias,%20Food%20and%20Kitchen%20equipment.pdf

SCOPE

Accommodations such as hotels and inns as well as event locations such as venues for conferences and other events.

THE KEY ENVIRONMENTAL IMPACT AND GPP APPROACH

The key environmental impacts of training facilities, hotels and venues are:

- Greenhouse gas emissions through energy consumption;
- Water pollution through the use of chemical substances;
- Water consumption during the use of facilities and preparation of events;
- Consumption of raw materials related to the purchasing of products and goods for the provided service;
- Generation of waste.

The GPP approach should cover therefore:

- Purchase services which ensure water and energy efficiency;
- Purchase services which make careful use of chemical substances and raw materials;
- Decrease the quantity of packaging used and waste produced.

SPECIFICATIONS

- The service supplier shall have its own environmental policy. The environmental policy shall cover the reduction of chemical substances usage, the reduction of waste and energy consumption, and water saving.
- The service supplier shall provide organic, local or regional products or products which are produced in a sustainable way (esp. avoid overfishing, no products from threatened species) when offering food and beverages.
- The service supplier shall ensure that indoor lighting is energy efficient.
- The service supplier shall reduce packaging and usage of disposable containers for food, drink and condiments.
- The service supplier shall post its environmental policies or targets in places where guests and employees can easily notice them.

Justification:

Requesting an environmental management system would be over-ambitious. But, requiring an environmental policy is a good way to promote environmentally sensitive management of the service provider. Asking for an environmental policy provides direction and requires the supplier to reflect on its environmental impact. Specific requirements on products, energy efficiency and waste reduction substantiate the environmental policy.

The specification is based on international experience.

EVIDENCE

Services suppliers shall provide evidence that they meet these criteria in form of a written statements signed by the Chief Executive Director or counterparts, accompanied by relevant documentation.

The service supplier must submit a copy of its environmental policy signed by the Chief Executive Director or counterparts, including the required elements, and indicate how it is made available to guests and staff personnel.

Service suppliers must declare compliance with the requirements on waste and packaging by showing packaging samples or proving internal waste reduction management initiatives.

VERIFICATION

Apart from checking the documentation, verification can include further steps:

Existence and placement of the environmental policy can be checked by an on-site visit. An On site-visit can also serve to look at the use of disposable containers.

For the characteristics of the food (local, organic etc.) invoices can be checked.

Energy efficient indoor lighting relates to the use of compact fluorescent lamps (CFLs) and LEDs.

REFERENCES

GPN. 2002. Using Guidelines for Hotels and Inns.
<http://www.gpn.jp/guideline/files/english/GPN-GL15.pdf>

Green Seal. 2014. GS-33 Green Seal Standard for Hotels and Lodging Properties. Edition 5.2
http://www.greenseal.org/Portals/0/Documents/Standards/GS-33%202014%20revision/GS-33_Ed5-2_Hotels_and_Lodging_Properties.pdf

Nordic Ecolabelling of Hotels, restaurants and conference facilities 2014. Version 4.1
www.ecolabel.dk/kriteriedokumenter/055e_4_1_1.pdf

5. Existing third part testing centres

This section summarises government and private testing centres in the Philippines, including specific tests they can undertake.

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
Paper/ Toilet Paper	% Recycled material content (measurable up to 100%)	Forest Product Research and Development Institute (c/o DOST)	<p>Paper and Paper Board Tests</p> <p>Analyze paper and paper board physical and optical properties such as texture, grammage, brightness, thickness and density.</p> <p>Examine the proximate chemical analysis for moisture, ash, extractives which include alcohol-cyclohexane, 1% NaOH, and hot/cold water and klason lignin.</p> <p>Determine strength properties such as resistance to bending, puncture, tearing, and crushing force of paper and board.</p> <p>Based on the following standards:</p> <p>ISO 2470 (Measurement of diffuse blue reflectance factor)</p> <p>ISO 2471 (Determination of opacity)</p> <p>ISO 1974 (Determination of</p>	<p>Department of Science and Technology – Forest Product Research and Development Institute</p> <p>Narra Road, Forestry Campus, College, Laguna, 4031</p> <p>Tel. no.: +63-49-5362586/5362360/5362377</p> <p>http://www.fprdi.dost.gov.ph</p>	Up to 100%

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
			tearing resistance) ISO 536 (Determination of grammage) ISO 534 (Determination of thickness, density and specific volume) ISO 1924 (Determination of tensile properties) ISO 2758 (Paper -- Determination of bursting strength) ISO 2759 (Board -- Determination of bursting strength) ISO 3035 (Determination of flat crush resistance) ISO 7263 (Determination of the flat crush resistance after laboratory fluting) ISO 13821 (Determination of edgewise crush resistance) ISO 5626 (Paper -- Determination of folding endurance) ISO 5627 (Determination of smoothness) TAPPI 462 (Castor Oil Penetration Test for Paper) TAPPI 437 om-08 (Dirt in Paper and Paperboard Test Method)		

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
			ISO 535 (Determination of water absorptiveness) ISO 2493 (Determination of resistance to bending) ISO 3037 (Determination of edgewise crush resistance (unwaxed edge method) ISO 2471 (Determination of opacity) ISO 1974 (Determination of tearing resistance) ISO 536 (Determination of grammage)		
	% Post-consumer waste content	Forest Product Research and Development Institute (c/o DOST) Tests available do not indicate post consumer waste content	Pulp Tests Evaluate the different pulp properties such as yield, Kappa number, Klason lignin, alcohol-cyclohexane solubility, hot/cold solubility, caustic soda solubility and beating properties of raw materials for making pulp. Based on the following standards: T 236 om-06 (Kappa Number of Pulp) T 222 om-06 (Acid-insoluble Lignin in Wood and Pulp) T 204 cm-07 (Solvent Extractives of Wood and Pulp)		No Standard

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
			T 207 om-08 (Water Solubility of Wood and Pulp) T 213 om-06 (Dirt in Pulp) TAPPI T 411 [Thickness (Caliper) on Paper and Paperboard] TAPPI T 425 [Opacity of Paper (15°/Diffuse, Illuminant A) 89% Reflectance Backing and Paper Backing] TAPPI T 494 (Tensile Breaking Properties of Paper and Paperboard Using Constant Rate of Elongation Apparatus) TAPPI T 403 (Bursting Strength of Paper) TAPPI T 414 (Internal Tearing Resistance of Paper) TAPPI T 515 [Folding Endurance of Paper (MIT Tester)] TAPPI T 550 (Determination of Equilibrium Moisture in Pulp, Paper, and Paperboard for Chemical Analysis)		
	Validate as total chlorine free (TCF)	No available testing facilities			Totally Chlorine Free
Air Conditioner	Energy Efficiency Rating	Fuels and Appliance Testing Lab (c/o DOE)	No details provided	Chief, Fuels and Appliance Testing Laboratory Diliman, Quezon City, Philippines	

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
				Tel. Nos. : (02) 927-7137; 929-5443; 927-7201 Fax No. : (02) 929-5474	
		TUV Rheinland	<ul style="list-style-type: none"> energy consumption in accordance with DIN EN 153 energy efficiency label in accordance with 96/57/EC and 2003/66/EC 	2241 Chino Roces Ave, La Fuerza Building 2, Makati, 1231 Tel no. 02 – 8128887 http://www.tuv.com/en/philippines/about_us_ph/tuv_rheinland_philippines/tuv_rheinland_philippines.html	
Refrigerators	Refrigerant used	No available testing facility			No ozone depleting refrigerants
Paints and varnishes	Product content particularly on the following: mercury, lead, cardmium, Cr+6, barium, antimony, tributyltin, triphenyltin	Intertek Testing Services Philippines Inc.	Paint and related surface coatings: Heavy metals – PB, Cd, Cr+6, Hg AAS/ASTM 4.3.5.1(2) F963-11, EN 71, CONEG, 16CFR Part 1303 (CPSC-CH-E1003-09.1), EN 1122	Intertek Testing Services Philippines Inc. Chester Lou A. Allones 632 8195841/632 8873320 2307 Chino Roces Avenue Extension Makati City	Total weight should be less than 0.1% of product weight

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
				chester.allones@intertek.com	
		SGS Philippines	VOC testing	2/F Alegria Bldg. 2229 Chino Roces Avenue Makati, Metro Manila Tel no. +632 784 9400 http://www.sgs.ph/en/Service-by-Type-Path/Testing.aspx	
		Sentrotek (Heavy metals: Lead, Cadmium, Mercury Arsenic, Chromium only)	JETRO, 2009	208 Pilar St. Mandaluyong City Tel. No. +632 – 7216500 http://www.sentrotek.com	

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
Textiles	Amount of hydrolysable formaldehyde present (<80 ppm)	Intertek Testing Services Philippines Inc.	Eco - Textile Testing - The trend of green consumerism has extended to textile and apparel products. Major European and U.S. textile product buyers have responded to this public awareness by viewing their textile products from an ecological standpoint, and are establishing relevant requirements. Intertek provides a comprehensive spectrum of Eco-Testing services targeting environmental protection and consumer health and safety. Eco-Testing includes: Banned Azo Colorants and Ozone Depleting Chemicals Heavy Metal, Pesticide Residues, and Fungicides, such as Dimethylfumarate Formaldehyde Content Eco-Textile Certification GB 18401 Testing	Intertek Testing Services Philippines Inc. Chester Lou A. Allones 632 8195841/632 8873320 2307 Chino Roces Avenue Extension Makati City chester.allones@intertek.com	Less than 80 ppm
		SGS Philippines	TCVN 7421-1:2013 / ISO 14184-1:2011	2/F Alegria Bldg. 2229 Chino Roces Avenue Makati, Metro Manila	

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
				Tel no. +632 784 9400	
		Ostrea Mineral Laboratories	Formaldehyde and heavy metals testing	Brgy. Road Barrio Mamlasa, Binan Laguna Tel No. 02 – 584-4361 http://ostrealabs.com.ph/?page_id=416	
Computers	Energy Efficiency Rating	TUV Rheinland	Directive (EC) No. 1275/2008: Household and office equipment Directive (EC) No. 278/2009: External mains adapters Directive (EC) No. 642/2009: Televisions Directive (EC) No. 107/2009: Set-top boxes Directive (EC) No. 244/2009: Household lighting Directive (EC) No. 643/2009: Household refrigerators	2241 Chino Roces Ave, La Fuerza Building 2, Makati, 1231 Tel no. 02 – 8128887 http://www.tuv.com/en/philippines/about_us_ph/tuv_rheinland_philippines/tuv_rheinland_philippines.html	
Laptops			Product Samples: Office equipment: PCs, notebooks, monitors, printers, video projectors Household appliances: stoves, refrigerators, coffee machines, vacuum cleaners		

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
			Consumer electronics: TVs, DVD players, SAT receivers Lighting: bulbs, LEDs, inductions lamps, gas discharge lamps, energy-saving lamps Mains adapters Machines and tools		
Cleaners	Chlorine content	SGS Philippines	No details provided	2/F Alegria Bldg. 2229 Chino Roces Avenue Makati, Metro Manila Tel no. +632 784 9400	No chlorine
	Content of inorganic acids		No details provided		No inorganic acids
LED lights	Energy Efficiency Rating	Fuels and Appliance Testing Lab (c/o DOE)	No details provided	Chief, Fuels and Appliance Testing Laboratory Diliman, Quezon City, Philippines Tel. Nos. : (02) 927-7137; 929-5443; 927-7201 Fax No. : (02) 929-5474	

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
		TUV Rheinland	<p>Directive (EC) No. 1275/2008: Household and office equipment</p> <p>Directive (EC) No. 278/2009: External mains adapters</p> <p>Directive (EC) No. 642/2009: Televisions</p> <p>Directive (EC) No. 107/2009: Set-top boxes</p> <p>Directive (EC) No. 244/2009: Household lighting</p> <p>Directive (EC) No. 643/2009: Household refrigerators</p> <p>Product Samples: Office equipment: PCs, notebooks, monitors, printers, video projectors</p> <p>Household appliances: stoves, refrigerators, coffee machines, vacuum cleaners</p> <p>Consumer electronics: TVs, DVD players, SAT receivers</p> <p>Lighting: bulbs, LEDs, inductions lamps, gas discharge lamps, energy-saving lamps</p> <p>Mains adapters</p> <p>Machines and tools</p>	Address: TÜV Rheinland Philippines, Inc. +63 2 8128887 +63 2 8128887-118	
		Scientific Environmental and Analytical Laboratory and Services, Inc. (SEALS Inc.)	<p>PNS 2050-1-1:2007</p> <p>PNS IEC 62560:2012</p>		

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
Detergents	Amount of ethylene diamine tetra acetate (EDTA)	SGS Philippines	No details provided	2/F Alegria Bldg. 2229 Chino Roces Avenue Makati, Metro Manila Tel no. +632 784 9400	No EDTA
Liquid Hand Soap	Amount of alkyl phenol ethoxylates (APEO)	SGS Philippines/ Intertek Testing Services Philippines Inc.	No details provided	SGS: 2/F Alegria Bldg. 2229 Chino Roces Avenue Makati, Metro Manila Tel no. +632 784 9400	No APEO
	Amount of builders made from phosphates		No details provided		No builders from phosphates
Disinfectant Spray	Amount of APEO	SGS Philippines		SGS: 2/F Alegria Bldg. 2229 Chino Roces Avenue Makati, Metro Manila Tel no. +632 784 9400	No content APEO
		Intertek Testing Services Philippines Inc.	b	Intertek Testing Services Philippines Inc. Chester Lou A. Allones 632 8195841/632 8873320	

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
				2307 Chino Roces Avenue Extension Makati City chester.allones@intertek.com	
	Amount of EDTA				No content EDTA
	Amount of nitrilotriacetate				No content NTA
	Amount of aromatic compounds				No aromatic compounds
plastic trash bags	Composition of plastic	Intertek Testing Services Philippines Inc.	No details provided	Intertek Testing Services Philippines Inc. Chester Lou A. Allones 632 8195841/632 8873320 2307 Chino Roces Avenue Extension Makati City chester.allones@intertek.com	Made of PE-LD
	% Recycled material content	Industrial Technology Development Institute (ITDI)	No details provided	http://www.itdi.dost.gov.ph/index.php/divisions/standards-and-testing	Minimum 30% post-consumer material
	Biodegradability	No testing facility			

PRODUCT	PRODUCT SPECIFICATIONS/ PARAMETER	TESTING AGENCY	VALIDATION METHOD	CONTACT INFO	EXPECTED VALUE
plastic chairs	Content of lead, chromium, cadmium, mercury, phthalates, halogenated organic substances	SGS Philippines (metals only)	No details provided	2/F Alegria Bldg. 2229 Chino Roces Avenue Makati, Metro Manila Tel no. +632 784 9400	No content of such substances

Notes:

Intertek Laboratories is an international firm which provide services in various areas in the Philippines. They have a comprehensive list of available tests for various consumer goods such as home appliances (i.e. refrigerators, air-conditioner units), textiles and chemicals (i.e. paints and cleaners) to name a few. However, the capability of the local offices in conducting particular tests should be verified.