

Environmental Choice^M Program

CERTIFICATION CRITERIA DOCUMENT

CCD-086



Product: Hand Towels

Preamble

Pursuant to paragraph 54 (1)(b) of the *Canadian Environmental Protection Act, 1999*, the Minister of the Environment is pleased to publish the following national guideline on **hand towel products** under the auspices of the Environmental Choice^M Program.

The Environmental Choice Program is designed to support a continuing effort to improve and/or maintain environmental quality by reducing energy and materials consumption and by minimizing the impacts of pollution generated by the production, use and disposal of goods and services available to Canadians.

More than 500,000 tonnes of sanitary paper products, including hand towel, hand towels, hand towels, hand towels, and hand towels, are manufactured in Canada each year. Pulp and paper mills consume significant quantities of energy and natural resources and may release substances which contaminate water and air in the receiving environment and which enter the solid waste stream. Alternatives are available to manufacturers in the choice of pulp furnish, pulp and paper technology and emission control to mitigate adverse environmental impacts.

Based on a review of currently available life cycle information, the product category requirements will produce an environmental benefit through **resource and energy conservation and reductions in harmful emissions to natural water bodies, air and land.**

A requirement for a minimum content of recycled material is not specified in this guideline. This parameter has been incorporated into the calculation of resource consumption and solid waste production. Performance in these areas improves as the amount of recycled material increases. Products containing low amounts of recycled material are unlikely to qualify for certification.

Life cycle review is an ongoing process. As information and technology change, the product category requirements will be reviewed and possibly amended.

Environment Canada anticipates that manufacturers or importers of **hand towel products** which conform to this guideline will apply to the Environmental Choice Program for verification and subsequent authority to label the qualifying products with the Environmental Choice EcoLogo^M.

Notice

Any reference to a standard means to the latest edition of that standard.

The Environmental Choice Program reserves the right to accept equivalent test data for the test methods specified in this guideline.

Notice of Intent

It is the intent of the Environmental Choice Program to amend this guideline with a requirement that all primary

wood fibre be obtained from forests which are certified as sustainably managed, when an appropriate certification program becomes available.

Interpretation

1. In the following guideline:

"acutely lethal" means that the effluent at 100% concentration kills more than 50 per cent of the rainbow trout subjected to it when tested in accordance with section 5 or 6 of the *Reference Method for Determining the Acute Lethality of Effluent to Rainbow Trout*, EPS 1/RM/13, July 1990;

"COD" (chemical oxygen demand) means the mass concentration of oxygen equivalent to the amount of dichromate consumed by dissolved and suspended matter when a water sample is treated with that oxidant in accordance with test method ISO 6060, or test method 5220 C or D in *Standard Methods for the Examination of Water and Wastewater*, 17th Edition, American Public Health Association, American Water Works Association and Water Pollution Control Federation, 1989, Washington, DC;

"chlorine bleaching plant" means a plant in a mill where pulp is bleached by chlorine or chlorine dioxide;

"component pulp" means a pulp which is used in the manufacture of a hand towel product and that is produced at an off-site facility;

"corporate code of sustainable forest practices" means a statement of practices which has the objective of maintaining environmental, economic, and social values of the forest. The code must specify, at a minimum, harvesting practices, forest regeneration, biodiversity and wildlife protection, soil conservation, watershed protection, and the participation of communities in forest planning;

"effluent" means waste water from a mill, including process water, gas scrubbing water, boiler blow-down water, washdown water, cooling water and leachate from any site at the mill where solid residues generated by any mill are treated or disposed of or where wood chips or hogfuel is stored;

"measurable concentration of 2,3,7,8-TCDD" means a concentration of 2,3,7,8-TCDD that is greater than the level of quantification as defined in *Reference Method for the Determination of Polychlorinated Dibenzo-para-dioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) in Pulp Mill Effluents*, Report EPS 1/RM/19, 1991;

"measurable concentration of 2,3,7,8-TCDF" means a concentration of 2,3,7,8-TCDF that is greater than the level of quantification as defined in *Reference Method for the Determination of Polychlorinated Dibenzo-para-dioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) in Pulp Mill Effluents*, Report EPS 1/RM/19, 1991, and that, when multiplied by 0.1, exceeds 5 ppq;

"NOEC" (no-observed-effect-concentration) means the highest concentration of a test material to which organisms are exposed, in which the response is found, by some statistical test, not to be different from the control response;

"post-consumer material" means a product which has served its end-use at the consumer level, has been discarded by the consumer, and would, unless diverted, enter the waste stream;

"pre-consumer material" means materials generated by an industrial process that would, unless diverted, enter the waste stream. This includes, but is not limited to, damaged or defective materials, overstock or obsolete inventories from manufacturers, distributors, wholesalers and trimmings from converting processes. It does not include wet or dry broke;

"primary wood fibre" means fibre from wood which has not previously been pulped;

"printed recovered material" means material which has been printed and/or coated and would, unless

diverted, enter the waste stream;

"recycled material" means post-consumer material and pre-consumer material. It does not include by-products of an industrial process that can be, and regularly are, used in either the same process, or in a different process, except that proportion which originated as post-consumer material and pre-consumer material. It may include sawdust or planer shavings from sawmill operations;

"TEF_{sub}" means sublethal toxicity emission factor. It is calculated as $(100/\text{NOEC}) \times \text{waste water flow in m}^3/\text{tonne of product}$. NOEC is determined for larval growth for effluents discharged:

- (a) to freshwater in accordance with ***Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows, Environment Canada, Report EPS 1/RM/22, 1992***; and
- (b) to marine or estuarine waters by testing sheepshead minnow or inland silverside in accordance with ***Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, USEPA Report EPA/600/4-91/003***.

Category Definition

2. This category includes all ***hand towel products***.

General Requirements

3. To be authorized to carry the EcoLogo ***hand towel products*** must:
 - (a) meet or exceed all applicable governmental and industrial safety and performance standards;
and
 - (b) be manufactured and transported in such a manner that all steps of the process, including the disposal of waste products arising therefrom, will meet the requirements of all applicable governmental acts, by laws and regulations including, for facilities located in Canada, the *Fisheries Act* and the *Canadian Environmental Protection Act (CEPA)*.

Notice: Hand towel products manufactured at facilities operating under any authorization, including transitional authorization to be exempt from any of the requirements of all applicable governmental acts, bylaws and regulations will not be eligible for certification.

Product Specific Requirements

4. To be authorized to carry the EcoLogo the ***hand towel products*** must:
 - a) be manufactured so that the total of load points assessed for resource consumption, energy consumption, COD, TEF_{sub}, and net solid waste as determined from Table I does not exceed 4;
 - (b) be manufactured so that the effluent from the paper mill or any mill which produces a component pulp, if such mills operate a chlorine bleaching plant, does not contain a measurable concentration of 2,3,7,8-TCDD or a measurable concentration of 2,3,7,8-TCDF;
 - (c) if manufactured from pulp made from primary wood fibre, use only pulp derived from forests which may be demonstrated to be managed under a corporate code of sustainable forest practices.

Verification

5. To verify a claim that a product meets the criteria listed in the guideline, the Environmental Choice Program will require access, as is its normal practice, to relevant quality control and production records and the right of access to production facilities on an announced basis.

6. Compliance with section 3(b) shall be attested to by a signed statement of the Chief Executive Officer or the equivalent officer of the manufacturer. The Environmental Choice Program shall be advised in writing immediately by the licensee of any non-compliance which may occur during the term of the license. On the occurrence of any non-compliance, the license may be suspended or terminated as stipulated in the license agreement.

Conditions for EcoLogo Use

7. The EcoLogo may appear on wholesale or retail packaging, or on the product itself, provided that the product meets the requirements in this guideline.

8. It is recommended that a criteria statement appear with the EcoLogo whenever the EcoLogo is used in association with the **hand towel product**. The intent of this statement is to provide clarification as to why the product was certified and to indicate constraints to which the certification is limited. This is to ensure no ambiguity over, or misrepresentation of, the reason(s) for certification.

ECP suggested criteria statement wording for this product type is "*Hand Towel*". The licensee may propose other wording for the criteria statement, but any such proposed wording must be approved by the Environmental Choice Program.

9. All licensees and authorized users must comply with the Environmental Choice Program's *Guide to Proper Use of the EcoLogo^M* regarding the format and usage of the EcoLogo.

10. Any accompanying advertising must conform with the relevant requirements stipulated in this guideline, the license agreement and the Environmental Choice Program's *Guide to Proper Use of the EcoLogo^M*.

***For additional copies of this guideline or for more information about the Environmental Choice Program, please contact: TerraChoice Environmental Services Inc.,
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Table I**Environmental Parameters and Load Points for Hand Towel Products**

| PARAMETER | LOAD POINTS | | | | |
|--|-------------|-------------|------------|------------|-------|
| | 0 | 1 | 2 | 4 | 8 |
| Resource consumption tonne/tonne | < .05 | .05 to .2 | .2 to .8 | .8 to 1.1 | > 1.1 |
| Energy consumption GJ/tonne | < 24 | 24 to 27 | 27 to 40 | 40 to 52 | > 52 |
| COD kg/tonne | < 5 | 5 to 15 | 15 to 40 | 40 to 60 | > 60 |
| TEF_{sub} | < 50 | 50 to 100 | 100 to 150 | 150 to 200 | > 200 |
| Net solid waste tonne/tonne | < -1.3 | -1.3 to -.6 | -.6 to -.2 | -.2 to .1 | > .1 |

NOTES

The process used to qualify products for EcoLogo certification in this guideline is based on a matrix of five environmental parameters, each with a range of values based on actual industry performance. Each level of performance is assigned a load point value. Points are totalled over all parameters. Products with different environmental profiles will be able to qualify for the EcoLogo. The allowable number of points has been set so that, while tradeoffs between parameters is possible, very poor performance in any one parameter will disqualify a product.

The parameters used to evaluate sanitary paper products for EcoLogo certification are based on the most significant environmental impacts associated with specific areas of the product life cycle, namely the production and processing of pulp and paper. The parameters relate to resource consumption (materials and energy) and emissions (toxicity and wastes). Resource extraction (forest management) will be addressed in future revisions of this guideline when a suitable forest management certification process becomes available.

The five specific parameters used are described in the following paragraphs:

1. **"Resource Consumption"** is calculated as tonnes of resource consumed per tonne of sanitary paper produced. It includes all fibrous materials consumed in pulp and paper making (wood and wood chips, manufacturing residues and post-consumer fibre) and non-fibrous additives such as fillers, wet strength agents and sizing which are added to be retained in the finished product. It excludes hog fuel and the combustible organic content of spent pulping liquor which is burned, and all bleaching and process chemicals.

Different fibre resource inputs are weighted according to the following factors:

| | |
|-----------------------------------|-------------|
| post-consumer material | 0 |
| printed recovered material | 0 |
| sawdust, planer shavings | 0.33 |

| | |
|------------------------------|-------------|
| pre-consumer material | 0.75 |
| whole logs | 1 |
| wood chips | 1 |

2. **"Energy Consumption"** means the energy used to produce a tonne of sanitary paper, including the production of wood chips, major process chemicals, the net energy consumption at pulp and paper mills (energy purchased and generated less sales), and off-site treatment facilities. It excludes energy consumed in mining and forestry operations, all transportation energy, and that portion of the energy derived from combustion of biomass (bark, sawdust, etc.).

3. **"Chemical Oxygen Demand (COD)"** represents the total organic chemical loading from aqueous effluent per tonne of sanitary paper produced. It includes biochemical oxygen demand (BOD) and organic suspended solids.

4. **"Sublethal toxicity"** is an indicator of the toxicity of mill effluent to aquatic organisms. It is measured in units of toxicity emission factor (TEF_{sub}). Units of TEF_{sub} are added for pulp and paper production for mills which discharge directly to natural water courses. No TEF_{sub} load points are assigned to mills which discharge to an off site treatment facility.

5. **"Net Solid Waste"** reflects both quantities diverted from and directed to the solid waste stream per tonne of sanitary paper produced. It represents the gross weight of solid waste from paper production, including the production of component pulps, less the weight of various types of recovered fibre inputs used in pulp and paper production. The weights are multiplied by a factor for each type of recovered fibre as follows:

| | |
|-----------------------------------|-------------|
| post-consumer material | 1 |
| printed recovered material | 1 |
| sawdust, planer shavings | 0.67 |
| pre-consumer material | 0.25 |
| whole logs | 0 |
| wood chips | 0 |

Note: The use of recovered fibre is credited in the calculation of load points for both the resource utilization and net solid waste parameters. This is due to the fact that sanitary paper products represent the final use of the fibre and, unlike most other types of paper products, are not normally recovered for recycling purposes.