



# **Questionnaire**

**for the revision of European  
Ecolabel Criteria for Copying and Graphic  
Paper, Newsprint Paper and Tissue Paper**

**July 2016**

## **OBJECTIVES:**

*This questionnaire was developed within the framework of the EU Ecolabel criteria revision for Copying and graphic papers, Newsprint papers, and Tissue papers.*

*A technical background documents that supports the revision can be found on the project website: [http://susproc.jrc.ec.europa.eu/Paper\\_products/](http://susproc.jrc.ec.europa.eu/Paper_products/)*

*The questionnaire is intended to collect product-specific information and data regarding the environmental performance of pulp and paper mills taking into account the major differences in the use of raw materials, pulp and paper grades manufactured and product qualities to be achieved. It will serve as a reference to set the optimum ambition level of the revised EU Ecolabel criteria for the aforementioned product groups.*

*In case of multi product mill where applicable please refer to the specific product type addressed by the EU Ecolabel revision: Newsprints, Copying and graphic, or / and tissue paper.*

*Please specify the major paper grades/qualities manufactured and indicate the percentage of the total production.*

*Should you happen to be an EU Ecolabel license holder, please provide the information that addresses the licensed product. In case the production covers more than one licensed product type / paper grade, if feasible, please provide information for each of them.*

Company / mill: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Contact person: \_\_\_\_\_

(Name und function) \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

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**ALL DATA SHOULD BE AS RECENT AS POSSIBLE PLEASE INDICATE THE  
REFERENCE YEAR: \_\_\_\_\_**

**PLEASE NOTE THAT ALL DATA SHOULD REFER TO THE SAME YEAR**

**PLEASE RESPOND TO THIS QUESTIONNAIRE USING A YEAR FOR WHICH YOU HAVE MORE  
COMPREHENSIVE DATA BUT NOT OLDER THAN 2011**

## 1. General information

### 1.1 Kind of mill

- Integrated mill<sup>1</sup>
- Partly integrated pulp and paper mill
- Multi product mill, please specify the relevant pulp and paper products manufactured:
- Only pulp production
- Only paper production

### 1.2 Product type and product amounts (net production = saleable product)

|   |  |        |
|---|--|--------|
| <input type="checkbox"/> Sulphate pulp: <input type="checkbox"/> bleached <input type="checkbox"/> unbleached   |  | ADt/yr |
| <input type="checkbox"/> Sulphite pulp: <input type="checkbox"/> bleached <input type="checkbox"/> unbleached   |  | ADt/yr |
| <input type="checkbox"/> Mechanical pulp <input type="checkbox"/> GWP <input type="checkbox"/> PGP <input type="checkbox"/><br><input type="checkbox"/> TMP <input type="checkbox"/> RMP <input type="checkbox"/> PRMP <input type="checkbox"/> |  | ADt/yr |
| <input type="checkbox"/> NSSCP  |  | ADt/yr |
| <input type="checkbox"/> Wood containing papers coated  |  | ADt/yr |
| <input type="checkbox"/> Wood containing papers uncoated  |  | ADt/yr |
| <input type="checkbox"/> Wood free papers coated  |  | ADt/yr |
| <input type="checkbox"/> Wood free papers uncoated  |  | ADt/yr |
| <input type="checkbox"/> Recycled paper based papers <b>with</b> deinking   |  | ADt/yr |
| <input type="checkbox"/> Recycled paper based papers <b>without</b> deinking  |  | ADt/yr |

### 1.3 Production

Total net production (saleable product) in ADt/year: \_

### 1.4 Classification of type of paper

- Copying and graphic paper:
  - coated  uncoated  other: \_\_\_\_\_

<sup>1</sup>Following BREF for the Production of Pulp, Paper and Board (2015) integrated production means that pulp and paper are produced in the same plant. The pulp is not dried before paper manufacture. Integrated mills can however also use some dried pulp acquired elsewhere. The level of integration can vary from a normal integrated mechanical pulp and paper mill to multiproduct integrated mills.  
[http://eippcb.jrc.ec.europa.eu/reference/BREF/PP\\_revised\\_BREF\\_2015.pdf](http://eippcb.jrc.ec.europa.eu/reference/BREF/PP_revised_BREF_2015.pdf)

- Newsprints
- Tissue paper
- Other

Please indicate the major substrate used (e.g. chemical pulp, TMP, GW, DIP and fillers) for the respective paper grades and the percentage of the total production (in %)

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Please specify the major paper grades manufactured and indicate the percentage of the total production.

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For copying and graphic papers, please specify the grammage:

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**Note:** Product group definitions according to EU Ecolabel criteria under revision are as follows:

**1. Commission Decision 2011/332/EU**

The product group '**copying and graphic paper**' shall comprise sheets or reels of not converted, unprinted blank paper and not converted boards up to basis weight of 400 g/m<sup>2</sup>.

It shall not include newsprint paper, thermally sensitive paper, photographic and carbonless paper, packaging and wrapping paper as well as fragranced paper.

**2. Commission Decision 2012/448/EU**

The product group '**newsprint paper**' shall comprise paper made from pulp and used for printing newspapers and other printed products.

The product group 'Newsprint paper' shall not include copying and graphic paper, thermally sensitive paper, photographic and carbonless paper, packaging and wrapping paper as well as fragranced paper.

**3. Commission Decision 2009/568/EC**

The product group '**tissue paper**' shall comprise sheets or rolls of tissue paper fit for use for personal hygiene, absorption of liquids and/or cleaning of soiled surfaces. The tissue product consists of creped or embossed paper in one or several plies. The fibre content of the product shall be at least 90 %.

That product group shall not comprise any of the following:

- (a) wet wipes and sanitary products;
- (b) tissue products laminated with other materials than tissue paper;
- (c) products as referred to in Directive 76/768/EEC.

### 1.5 Environmental management system

- EMAS     ISO 14000     others \_\_\_\_\_

### 1.6 EU Ecolabel licence holder for the product group:

- Copying and graphic paper
- Newsprints
- Tissue Paper
- Potentially interested to apply for EU Ecolabel License for the product group:

\_\_\_\_\_

- No license

### **Additional remarks:**

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## 2. Use of raw material and chemical additives

### 2.1 Fibres and fillers

|                          |  |  |        |
|--------------------------|--|--|--------|
| <input type="checkbox"/> | Wood, please specify main wood species:<br>_____ |  | ADt/yr |
| <input type="checkbox"/> | Chemical pulp                                    |  | ADt/yr |
| <input type="checkbox"/> | Mechanical Pulp                                  |  | ADt/yr |
| <input type="checkbox"/> | Recycled paper                                   |  | ADt/yr |
| <input type="checkbox"/> | Recycled paper (market-DIP)                      |  | ADt/yr |
| <input type="checkbox"/> | Fillers/pigments                                 |  | ADt/yr |

What is the mass fraction of fibre in the final product? \_\_\_\_\_% (air-dried basis)

### 2.2 Forestry certification in place

FSC       PEFC       other: \_\_\_\_\_

What is the average percentage of fibres certified as sustainable virgin or recycled origin \_\_\_\_\_ (%)

### 2.3 Chemical additives overview.

Please provide details on the following functional chemicals if they possess any of the following hazard classification (risk phrases):

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**Group 1 hazards –CLP**

*Hazards that identify a substance or mixture as being within Group 1:*

Carcinogenic, Mutagenic and/or Toxic for Reproduction (CMR) Category 1A or 1B: H340, H350, H350i, H360, H360F, H360D, H360FD, H360Fd, H360Df

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**Group 2 hazards – CLP**

*Hazards that identify a substance or mixture as being within Group 2:*

Category 2 CMR: H341, H351, H361f, H361d, H361fd, H362

Category 1 aquatic toxicity: H400, H410

Category 1 and 2 acute toxicity: H300, H310, H330

Category 1 aspiration toxicity: H304

Category 1 Specific Target Organ Toxicity (STOT): H370, H372

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**Group 3 hazards – CLP**

*Hazards that identify a substance or mixture as being within Group 3:*

Category 2, 3 and 4 aquatic toxicity: H411, H412, H413

Category 3 acute toxicity: H301, H311, H331, EUH070

Category 2 STOT: H371, H373

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|                          | Functional chemicals              | CAS No | Quantity/ADt | SVHC* (Y/N) |
|--------------------------|-----------------------------------|--------|--------------|-------------|
| <input type="checkbox"/> | Retention aids, dewatering agents |        |              |             |
| <input type="checkbox"/> | Fixing agents                     |        |              |             |
| <input type="checkbox"/> | Defoamer                          |        |              |             |
| <input type="checkbox"/> | Cleaning agents                   |        |              |             |
| <input type="checkbox"/> | Biodispersion agents, biocides    |        |              |             |
| <input type="checkbox"/> | Sizing agents                     |        |              |             |
| <input type="checkbox"/> | Wet strength agents               |        |              |             |
| <input type="checkbox"/> | Dry strength agents               |        |              |             |
| <input type="checkbox"/> | Chelating agents                  |        |              |             |
| <input type="checkbox"/> | Dyes                              |        |              |             |
| <input type="checkbox"/> | Optical brighteners               |        |              |             |
| <input type="checkbox"/> | Bleaching agents                  |        |              |             |
| <input type="checkbox"/> | Other                             |        |              |             |

\*SVHC: Substances that appear on the Candidate List for SVHCs

## 2.4 Fresh water demand

Total water : \_\_\_\_\_ m<sup>3</sup>/yr

of which

Cooling water: \_\_\_\_\_ m<sup>3</sup>/yr

Process water: \_\_\_\_\_ m<sup>3</sup>/yr

Please indicate the fresh water origin:

- Groundwater(%)  
 Surface water(%)  
 Drinking water(%)  
 Other \_\_\_\_\_(%)

*Additional remarks:*

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### 3. Emissions

#### 3.1 Emissions to water

##### 3.1.1 Waste water volume

Total discharged waste water volume: \_\_\_\_\_ m<sup>3</sup>/yr

Of which production-related waste water volume: \_\_\_\_\_ m<sup>3</sup>/yr

Specific waste water volume, related to net production: \_\_\_\_\_ m<sup>3</sup>/ADt

Specific waste water volume, related to installed production capacity: \_\_\_\_\_ m<sup>3</sup>/ADt

##### 3.1.2 Closure of the water circuit

yes

no

If yes, how much is recirculated on average? \_\_\_\_\_% of total water demand

Please indicate the production stage with applied water re-circulation e.g. pulper:

\_\_\_\_\_

Co-treatment of waste water not from pulp and paper production: **Y / N**

(e. g. municipal waste water, paper converting, other pulp and paper mills)

yes

no

% volume: \_\_\_\_\_ (of total waste water received)

### 3.2. Waste water emission values after waste water treatment under normal operational conditions

In case of multi product mills, please refer to the specific product type addressed i.e. Newsprints, Copying and graphic and/or tissue paper.

#### 3.2.1. Waste water emission values after waste water treatment at normal operation per type of pulp produced

Each parameter should be expressed as a final value separately for each type of pulp produced. Please refer to the pulp production.

| PARAMETER                | LOAD IN KG/ADT |     | YEARLY AVERAGE IN KG/ADT |
|--------------------------|----------------|-----|--------------------------|
|                          | Min            | Max |                          |
| <b>Type of pulp:</b>     |                |     |                          |
| <b>COD</b>               |                |     |                          |
| <b>AOX*</b>              |                |     |                          |
| <b>P<sub>total</sub></b> |                |     |                          |
| <b>Type of pulp:</b>     |                |     |                          |
| <b>COD</b>               |                |     |                          |
| <b>AOX*</b>              |                |     |                          |
| <b>P<sub>total</sub></b> |                |     |                          |

\*For ECF bleached pulp only

#### 3.2.2. Waste water emission values after waste water treatment at normal operation per type of product

Each parameter should be expressed as a final weighted value for the product type (pulp or paper).

For each pulp 'i' used to produce the final product, the measured emissions parameter (expressed in kg/air dried tonne — ADT), shall be weighted according to the proportion of each pulp used (pulp 'i' with respect to air dried tonne of pulp), and summed together.

The weighted emission value for the pulps should be expressed as sum up to give a total emission for the respective parameter following the below equation:

$$Ep_{total} = \sum_{i=1}^n [pulp, i \times (Ep_{pulp, i})] + Ep_{papermach\ddot{u}e}$$

The equation should refer to the average emission value for each parameter

In case of integrated mills, due to the difficulties in getting separate emission figures for pulp and paper, if only a combined figure for pulp and paper production is available, the emission values for pulp(s) shall be set to zero and the figure for the paper mill shall include both pulp and paper production.

**Please indicate product type:**

- Copying and graphic paper     Newsprints     Tissue paper

| <b>PARAMETER</b>         | <b>LOAD IN KG/ADT (OR KG/TONNE OF PAPER, AS APPROPRIATE)</b> |            | <b>YEARLY AVERAGE IN KG/ADT</b> |
|--------------------------|--|------------|---------------------------------|
|                          | <b>Min</b>   | <b>Max</b> |                                 |
| <b>COD</b>               |  |            |                                 |
| <b>AOX*</b>              |  |            |                                 |
| <b>P<sub>total</sub></b> |  |            |                                 |

\*For bleached pulp only

3.2.3 Emission monitoring

| <b>PARAMETER</b>         | <b>TEST METHODS USED (EN, ISO, OTHERS)</b> | <b>FREQUENCY OF MEASUREMENTS</b> |
|--------------------------|--|----------------------------------|
| <b>COD</b>               |  |                                  |
| <b>AOX*</b>              |  |                                  |
| <b>P<sub>total</sub></b> |  |                                  |

\*For bleached pulp only

*Additional remarks:*

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### 3.3. Process related emissions to air

*In pulp and paper mills, process and energy related emissions to air can be distinguished. However, the borderline between process related and energy related emissions is not always easy to draw, e.g. for bark boilers, biomass CHP plants, CHP plants (gas) or on-site residue (co)incineration. For integrated mills, information should be gathered on both types of installations.*

*All emission values should be related to normal conditions and expressed as kg per ADt pulp (paper, as appropriate).*

*Normal conditions mean: means 0°C, 1013 mbar, dry, O<sub>2</sub> content 6 %. In the case of differences, please state your conditions.*

*In case of multi product mills, please refer to the specific product type addressed i.e. Newsprints, Copying and graphic and/or tissue paper.*

#### 3.3.1 Emission source

|   | yes                      | no                       |
|---|--------------------------|--------------------------|
| Recovery boiler                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| Lime kiln   | <input type="checkbox"/> | <input type="checkbox"/> |
| Separate furnace for incineration of malodorous gases | <input type="checkbox"/> | <input type="checkbox"/> |
| Bark boiler   | <input type="checkbox"/> | <input type="checkbox"/> |
| Residue incineration                                  | <input type="checkbox"/> | <input type="checkbox"/> |
| Residue co-incineration                               | <input type="checkbox"/> | <input type="checkbox"/> |
| Mechanical pulp production                            | <input type="checkbox"/> | <input type="checkbox"/> |

(Stone groundwood pulping, TMP plant, please specify): \_\_\_\_\_

Other, please specify : \_\_\_\_\_

#### 3.3.2 Final emission values at normal operating conditions

*The emission values for S, NO<sub>x</sub> should include all emissions which occur during the production of pulp and paper, including steam generated outside the production site. Measurements should include recovery boilers, lime kilns, steam boilers and destructor furnaces for strong smelling gases. Diffuse emissions shall be taken into account.*

*Where co-generation of heat and electricity occurs at the same plant, please calculate the emissions of S and NO<sub>x</sub> that can be allocated to electricity generation, as specified below (Point 3.3.2.1.).*

Reported emission values for S to air shall include both oxidised and reduced S emissions (dimethyl sulphide, methyl mercaptan, hydrogen sulphide and similar emissions). The S emissions related to the heat energy generation from oil, coal and other external fuels with known S content may be calculated instead of measured, and shall be taken into account.

In the case of discontinuous measurements, please state reference period (sampling period) and frequency of measurements.

The emissions of carbon dioxide from non-renewable sources should include emissions from the production of electricity (whether on-site or off-site).

### 3.3.2.1 Air emission values after treatment at normal operation per type of pulp produced

Each parameter should be expressed as a final value separately for each type of pulp produced.

| Parameter  | Measured concentration in mg/nm <sup>3</sup> as DAV (min.-max. range) <sup>(1)</sup> | Measured concentration in mg/nm <sup>3</sup> as YAV (average value of valid dav) | Average volume stream of dry fluegas in nm <sup>3</sup> /h and oxygen content in % O <sub>2</sub> of the flue gas | Annual load in kg/adt | Net emission value* |
|--|--|--|---|-----------------------|---------------------|
| <b>Type of pulp:</b>   |  |  |   |                       |                     |
| S <sub>total</sub>   |  |  |   |                       |                     |
| NO <sub>x</sub>  |  |  |   |                       |                     |
| CO <sub>2</sub>  |  |  |   |                       | n.a.                |
| <b>Type of pulp:</b>   |  |  |   |                       |                     |
| Stotal   |  |  |   |                       |                     |
| NO <sub>x</sub>  |  |  |   |                       |                     |
| CO <sub>2</sub>  |  |  |   |                       | n.a.                |
| <sup>(1)</sup> Calculated under normal conditions and O <sub>2</sub> reference value |  |  |   |                       |                     |

\*For NO<sub>x</sub> and S emission please subtract the value from the total amount of NO<sub>x</sub> and S emission.

The following equation can be used to calculate the proportion of the emissions resulting from electricity generation:

$$2 \times (\text{MWh}(\text{electricity})) / [2 \times \text{MWh}(\text{electricity}) + \text{MWh}(\text{heat})]$$

### 3.3.2.2. Air emission values treatment at normal operation per type per type of product

Each parameter should be expressed as a final weighted value for the product type (pulp or paper).

For each pulp 'i' used to produce the final product, the measured emissions parameter (expressed in kg/air dried tonne — ADT), shall be weighted according to the proportion of each pulp used (pulp 'i' with respect to air dried tonne of pulp), and summed together.

The weighted emission value for the pulps should be expressed as sum up to give a total emission for the respective parameter following the below equation:

$$Ep_{total} = \sum_{i=1}^n [pulp, i \times (Ep_{pulp, i})] + Ep_{papermachine}$$

The equation should refer to the on average emission value for each parameter.

In case of integrated mills, due to the difficulties in getting separate emission figures for pulp and paper, if only a combined figure for pulp and paper production is available, the emission values for pulp(s) shall be set to zero and the figure for the paper mill shall include both pulp and paper production.

**Please indicate product type:**

Copying and graphic paper     Newsprints     Tissue paper

| PARAMETER | LOAD IN KG/TONNE OF PAPER |     | YEARLY AVERAGE IN KG/TONNE OF PAPER |
|-----------|---------------------------|-----|-------------------------------------|
|           | Min                       | Max |                                     |
| S         |                           |     |                                     |
| NOx       |                           |     |                                     |
| CO2       |                           |     |                                     |

3.3.3 Analytical methods for the measured parameters and intensity frequency of measurements in the case of discontinuous measurement

| PARAMETER | TEST METHODS USED (EN, ISO, OTHERS) | FREQUENCY OF MEASUREMENTS |
|-----------|-------------------------------------|---------------------------|
| S         |                                     |                           |
| NOx       |                                     |                           |
| CO2       |                                     |                           |

*Additional remarks:*

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## 4. Energy use

### 4.1 Fossil energy fuels

Please specify the amount of the energy supplied from the national grid

\_\_\_\_\_ MWh/yr \_\_\_\_\_ (%) of total energy consumption per annum

\_\_\_\_\_ kWh/t \_\_\_\_\_ (%) of total energy consumption per production unit

**Note:** Database for specific values: shippable production

| <b>Fossil fuels</b>     | <b>t/yr</b> | <b>1000 m<sup>3</sup>/yr</b> | <b>MWh/yr</b> | <b>kWh/t</b> |
|-------------------------|-------------|------------------------------|---------------|--------------|
| Hard coal               |             |                              |               |              |
| Lignite                 |             |                              |               |              |
| Light oil               |             |                              |               |              |
| Heavy oil               |             |                              |               |              |
| Natural gas             |             |                              |               |              |
| Others (please specify) |             |                              |               |              |
| <b>Total</b>            |             |                              |               |              |

### 4.2 Renewable energy

| <b>Renewable energy</b>  | <b>t/yr</b> | <b>1000m<sup>3</sup>/yr</b> | <b>MWh/yr</b> | <b>kWh/t</b> |
|--------------------------|-------------|-----------------------------|---------------|--------------|
| Solar                    |             |                             |               |              |
| Wind power               |             |                             |               |              |
| Hydroelectric energy     |             |                             |               |              |
| Biomass                  |             |                             |               |              |
| Geothermal power         |             |                             |               |              |
| Others (please specify): |             |                             |               |              |
| <b>Total</b>             |             |                             |               |              |



### 4.3 Regenerative and refuse derived fuels

| Regenerative and refuse derived fuels (RDF) | t/yr | 1000m <sup>3</sup> /yr | MWh/yr | kWh/t |
|---|------|------------------------|--------|-------|
| Bark  |      |                        |        |       |
| Spent liquor                                |      |                        |        |       |
| Residues from production                    |      |                        |        |       |
| Refuse derived fuels                        |      |                        |        |       |
| Biomass (specify): saw dust                 |      |                        |        |       |
| Biogas                                      |      |                        |        |       |
| Primary sludges                             |      |                        |        |       |
| Sludges from biological treatments          |      |                        |        |       |
| Rejects                                     |      |                        |        |       |
| Others (please specify):                    |      |                        |        |       |
| <b>Total</b>                                |      |                        |        |       |

*Additional remarks:*

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## 5. Energy balances

### Entire mill

Covers the entire site incl. all services and facilities  
 Database for specific values: shippable production

|                        |  |       |                     |
|------------------------|--|-------|---------------------|
| Primary energy sources |  | KWh/t |                     |
| Purchased power        |  | KWh/t | + purchased, - sold |
| Sold power             |  | KWh/t |                     |
| Purchased heat         |  | KWh/t |                     |
| Sold heat              |  | KWh/t |                     |

**Total**  KWh/t

Note: Please state positive numbers for purchased and negative for sold power/heat

### Pulp mill only

Covers pulp mill with secondary units and recovery boiler  
 Data base for specific values: pulp production (ADt/yr)

|                                   |  |       |                     |
|-----------------------------------|--|-------|---------------------|
| Process electric power            |  | KWh/t |                     |
| Used process heat                 |  | KWh/t | + purchased, - sold |
| Generated process heat (reboiler) |  | KWh/t |                     |

**Total**  KWh/t

Note: Please state positive numbers for purchased and negative for sold power/heat

### Paper production only

Paper production with related secondary units  
 Data base for specific values: shippable paper production

|                        |  |       |                     |
|------------------------|--|-------|---------------------|
| Process electric power |  | KWh/t |                     |
| Used process heat      |  | KWh/t | + purchased, - sold |

**Total**  KWh/t

*Thank you for your co-operation,*

*JRC team*