| Overall Comment No. | Comment from | | | Chapter / section No. | | BATC # | Page # (pdf of July'13 Final Draft) | Comment description | Ration |
|----------------------------|--------------|---|---|-----------------------|---|--------|--|--|---|
| 1 | Austria | | | | | - | - | General comment: During the final TWG meeting discussions about BAT-AELs or BAT-associated environmental performance levels were sometimes completely disconnected from the techniques and the achieved emission levels. The BAT- AELs are relatively often based on negotiation and seeking the positive vote of the majority of the TWG. In this sense a number of BAT-AELs were derived rather by seeking a supporting vote than by technical arguments. | examples: - air emissions: there is no clear co-relationship or explana- loads are connected (see e.g tables 8.7 to 8.10; table 8.7 - the specific water consumption has been negotiated upw RCF mills without deinking (7m ³ /t) and non integrated pap- paper grades, - the level for nutrients were derived without traceable con |
| 2 | Germany | | | | | - | - | General comment: During the final TWG meeting discussions about BAT-AELs or BAT-associated environmental performance levels were sometimes disconnected from the applied techniques and the emission levels achieved by using them. In this sense some of the BAT-AELs seem to be rather derived by seeking a supporting vote of the TWG majority than by exchanging technical arguments. We think that that we should not remove or widen the ranges of BAT- AELs of a current BREF without a good justification. | See for example the BAT AEL for total phosphorous for bl mills are included in the BAT AEL range. Also the specific a few cases. Some few of the BAT-AEPLs for the waste w voting. Examples: RCF mills without deinking (2001: below mills (2001: 15 m ³ /t; now: 3.5 - 20 m ³ /t). Also the level for to technical information. See also for example the total ph with a BAT associated upper level of 0.12 kg/t, that include below 0.004 kg/t. Against our recommendation, the BAT-A product-specific values (e.g. kg P/t of paper) although P a production. |
| 3 | Austria | | | | | - | - | The issue "Net Production" versus "Maximum installed production capacity" has to be solved before starting the revision of the BREF. | Some member states stipulate ELVs on the basis of the m BAT-AELs are given for the actual net production. This ca but also hampers the data collection process. |
| 4 | EEB | | | | | - | - | EEB maintains all the split views expressed at the final TWG meeting on the draft Pulp and Paper BREF meeting by the EEB. EEB fully support the comments made by Austria and Germany in their joint letter of 27 May 2013 sent to the EIPPCB. | |
| 5 | CEPI | 4 | 2 | 2 | 4 | - | 400 | Figure 4.17, 4.18, 4.21, 4.24, 4.27 and 4.29 (starting on page 400). In this section there are several figures that presents short-term variation of effluents to water measured as concentration (mg/l). | Minor issue. The purpose is to avoid dis-incentives for red are directly influenced by the water consumption, such val Values for effluents to water should only be listed as spec |
| 6 | Portugal | 4 | 2 | 2 | 4 | - | 400 | Figures 4.17, 4.18, 4.21, 4.24, 4.27, 4.29 - in these figures the short term variation of effluents to water, as concentration (mg/l). Considering that concentration values are directly influenced by the water consumption, they should be seen either as specific levels or, at least, there should be a footnote relating them to the tables where the water consumption is listed | There must be a link between concentration in load and w cases where water saving is a key issue and promote water |
| 7 | CEPI | 4 | 2 | 2 | 5 | - | 413 | Figure 4.34. The dust level listed in the figure is wrong for the mills Sappi Alfeld and Stockstadt. In addition, Sappi Gratkorn is listed twice in the figure: firstly under "Sappi Gratkorn" with wrong dust emission level, secondly under "Gratkorn" with the correct level and span of emissions. | Issue related to BAT 37. CEPI believes there has been a |
| 8 | CEPI | 4 | 2 | 2 | 5 | - | 413 | Figure 4.34. The dust level listed in the figure is wrong for SCA Mannheim. The real level is normally between 25-35 mg/Nm3. | Issue related to BAT 37. CEPI believes there has been a |
| 9 | Sweden | 5 | 2 | 2 | 7 | - | 521 | "Table 5.17 Indicative energy consumptions levels for heat and power for different types of integrated mechanical pulp and wood-containing paper and board mills": In Draft 2, May 2012, BAT performance levels for energy was found in chapter 8, BAT conclusions. At TWG meeting April 2013 was agreed that BAT-levels for energy should be moved to chapter 3-7 and placed among the technical background for the different types of pulp and paper production. In Pre-Final Draft, May 2013, this transfer was done, the levels however were still the same. Now, in Final Draft, July 2013, the levels have been changed. | The energy figures are specific real data from a particularl the right value. Instead, they represent, from a number of be BAT performance levels. As the earlier intention was th BAT conclusions in chapter 8, they are more important that been presented as support for the new higher levels. Ther to evaluate data and comment on the proposed changes. the levels. |
| 10 | Sweden | 5 | 2 | 2 | 7 | - | 521 | New line in Final Draft, July 2013, Table 5.17: "PGW based grades" with the level for process heat "1000-2000" kWh/t and for electricity "1800-2300" kWh/t. | No data to support the levels for PGW has been presenter understanding set as "gross heat". Referring to footnote 3 nr 2) this is not correct. Therefore the levels can be held to |
| 11 | Denmark | 8 | 5 | 2 | | - | 713 | BAT-associated emission levels for the waste water discharge to receiving waters from the integrated production of paper and board from recycled fibres pulp, produced without deinking on site, table 8.18, yearly average for total phosphorous is 0,001 - 0,005 kg/t. | Denmark finds that Italy has a point with their comment re although we find that an increase to 0,01 kg/t is too large a will be environmentally fair and at the same time will main the form of recycling fibres and thus minimize the use of n |

| ale | Proposal for modification |
|---|--|
| tion given, how concentration levels and specific 2 and 8.13), ards (see also old PP BREF BAT conclusions for er mills (15 m ³ /t)) as it was the case for many other nection to technical information, | BAT conclusions shall provide a technical basis for permitting, thus conclusions have to be based on technical and technic-economical considerations. In future TWG meetings, the EIPPCB should stick more to the rules of play, i.e. always ask for the technical basis of statements and supporting evidence; if a certain statement is not based on technical considerations it should not be supported even if a majority of the TWG members are in favor of the statement (possibly for other than technical reasons - e.g. because the proposed level of ambition seems to be acceptable). |
| eached Kraft pulp table 8.1 were all eucalyptus pulp water consumption has been negotiated upwards in ater flow do not reflect BAT but are rather a result of 7m ³ /t; now: 1.5 - 10 m ³ /t) and non integrated paper nutrients were derived without traceable connection osphorous for non integrated paper mills table 8.20 es all mills even though all except two mills are ELs for phosphorus and nitrogen are presented as nd N have virtually no technical connection to the | In future TWG meetings, the EIPPCB should stick more to the rules of play, i.e. always ask for the technical basis of statements and supporting evidence; if a certain statement has no good technical arguments it should not be supported even if a majority of the TWG members support it - possibly also for other than technical reasons (e.g. because the proposed level of ambition seems somehow acceptable). |
| aximum installed production capacity - whereas uses difficulties in the "transposition" of the BREFs, | To give thorough and in-depth consideration, how the differences in the approaches (specific loads based on "Net Production" or on the "maximum installed production capacity") can be properly addressed. |
| | |
| ucing water consumption. As concentration values ues should not be included in the BREF document. fic levels (i.e. kg/adt). | Alt 1: These figures should be deleted or replaced with figures based on specific emission levels (kg/adt). Alt 2: If this can not be accepted, then each figure should have a footnote informing that the concentration levels should be seen in relation to the waste water flow of each plant, with a further reference to Figure 4.14 where the waste water flow is presented. |
| ater consumption. This is important to highlight the er saving. | Delete the figures or, at least, complete the figures, add footnotes referring the water consumption, or a cross reference to the tables where water consumption may be found. |
| mistake. | Figure 4.34. The dust levels listed in the figure should be corrected according to the following: - Sappi Alfeld: around 20 mg/Nm3 - Stockstadt: around 40 mg/Nm3 - Sappi Gratkorn: delete as already correctly listed as Gratkorn |
| nistake. | Figure 4.34. The dust levels listed in the figure for SCA Mannheim should be corrected to 25- 35 mg/Nm3. |
| y mill, where you in an objective way can tell what is data, an assessment what should be considered to at energy consumption levels should be a part of in other tables that only report facts. No data has e have not been given any possibility for the TWG With this background it is not acceptable to change | |
| d. The levels now set in "Final Draft" is by our and comment 4 to the table 5.17 (see our comment be substantially to high. | The line should be deleted. |
| garding upper level of total phosphorous emission an increase. We find that an increase to 0,008 kg/t ain an industry that helps utilise waste products in atural resources. | BAT-associated emission levels for the waste water discharge to receiving waters from the integrated production of paper and board from recycled fibres pulp, produced without deinking on site, table 8.18, yearly average for total phosphorous is 0,001 - 0,008 kg/t. |

| Overall Comment No. | Comment from | | Chapter / section No. | BATC # | Page # (pdf of July'13 Final Draft) | Comment description | Ration |
|----------------------------|--------------|---|-----------------------|--------|--|--|--|
| 12 | CEPI | 8 | | - | 779 | The integrated approach is a key aspect of the IED framework. No mill can have the lowest values on all environmental performance indicators. To give one example, when reducing nitrogen oxides from the recovery process we have to compensate for the lower electrical efficiency by emissions in other areas. This is critical given the new legal standing of the BAT conclusions (chapter 8). | CEPI would like to reiterate the need for an integrated app be discussed in a future IED Article 13 Forum meeting. |
| 13 | Finland | | | - | 779 | It should be possible to apply the total BAT approach ("bubble") to total emissions from Recovery boilers, Lime kilns and dedicated TRS-burners | This gives an opportunity for the operator to do action on t effect, i.e. better environmental protection to a lower cost. bubble approach was: "Look at the result of the assessme other BREFs, and take into account DG ENV conclusion, a word "possibly" was written in the meeting conclusions, the discussion for the PP BREF as well in the forum in Septem |
| 14 | Sweden | 8 | | - | 779 | The way how the BAT conclusions are written can give the impression that the technologies listed are prescriptive. To avoid such confusion BAT conclusions should start with the BAT-AELs and then be followed by a list of technologies that are examples of how to reach the BAT-AELs. Sweden has raised a split view on this matter (nr 1). | For the complete rationale we refer to the raised split view |
| 15 | Germany | | | - | 779 | General comment: Short-term average values for air pollutants (daily average values) and short-term average values for emissions to water (daily average values) are missing in the BAT conclusions except for air emissions from sulphite pulping even though a lot of data has been collected for all sub-sectors covered by the PP BREF. As we see it, the EIPPCB did not play an active role with regard to assessing carefully the submitted short-term emission data and with regard to proposing appropriate BAT-AELs also on daily average basis at an early stage of the information exchange. From our perspective, if the EIPPCB would have assessed carefully the provided data, filled gaps continuously and would have initiated discussions on the right manner to derive BAT AELs also as short-term averages (as requested by Germany months before the final TWG) the TWG could have easily reached this target. See also the "dissenting views from Germany and Austria" submitted after the final TWG meeting. | As a tour de table during the final TWG meeting confirmed emissions to water and air based on daily averages or eve usability of the document substantially if short term BATAI States and mills operators did provide short-term data dur cover different product groups and pulp and paper grades yearly average values are incomplete, give room for misin administrative burden when it comes to the implementatio |
| 16 | Austria | | | - | 779 | General comment: Although data have been provided and are presented in the consumption and emission chapters short-term average values for air pollutants (daily average values) and short-term average values for emissions to water (daily average values) are not included in the BAT conclusions (with the exception of air emissions from sulphite pulping and SO2 emissions from Kraft pulping). As we see it, the EIPPCB did not play an active role with regard to assessing carefully the submitted short-term emission data and with regard to proposing appropriate BAT-AELs also on daily average basis at an early stage of the information exchange. From our perspective, if the EIPPCB would have assessed carefully the provided data, filled gaps continuously and would have initiated discussions on the right manner to derive BAT AELs also as short-term averages (as requested by Germany and Austria months before the final TWG) the TWG could have easily reached this target. See also the Austrian and German dissenting views. | As described in detail in our dissenting view, short term av - achieving a level playing field across Europe, - reducing administrative burden by simplifying and clarifyi compliance assessment (both for operators and authoritie - harmonization of compliance assessment, - establishing compliance or non-compliance, - immediate and appropriate reaction to exceedances of E - information flow to authorities and the public As a tour de table during the final TWG confirmed, almost and air based on daily averages or even shorter time perior substantially if short term BATAELs would have been inclu- did provide short-term data during the last six years of dat groups and paper grades. IED states, that "BAT conclusic conditions". The current BAT-AELs as part of the BAT cor- which in the logic of the IED have to be taken as reference for request or demand to define ELVs on national level bar reducing the administrative and economic burden. This w related to environmental protection, protection of human havailable techniques as well as information of the public. F practice in most EU Member States of setting ELV in perior |
| 17 | Austria | 8 | | - | 779 | Combustion Plants smaller than 50 MW: it was decided during the final meeting to delete BAT conclusions for combustion plants < 50 MW, but to keep the information in the previous chapters (techniques, emission and consumption levels). We are of the opinion, that the data collected and presented (sometimes in combination with emission levels known from combustion plants operated in other sectors) would have allowed to draw BAT conclusions for this kind of plants. It is still not decided, how combustion plants < 50 MW will be dealt with on European level. | Emissions from Combustion Plants < 50 MW may give ma of useful data included in sections 2.7 and 2.10, which mig process, since practice has shown, that authorities they w |

| ale | Proposal for modification |
|---|---|
| roach on emissions to air (the 'bubble concept'); to | From an environmental point of view the total discharge of emissions to air, e.g. NOx and gaseous sulphur compounds from the different units, is the relevant factor. The environmental impact on air is based only on the total emissions of a certain parameter coming out of the plant, not the individual emission point. In principal, CEPI consider the need for a more integrated approach to mills that have different processes. |
| he emission source where the measures have most The conclusions in the PP TWG meeting on the int that DG ENV is doing on the bubble approach in and possibly discuss it at the Forum" Even if the EIPPCB clearly promised to take this up for ober. | As an alternative to regulating Recovery boilers, Lime kilns and dedicated TRS-burners separately concerning SO2 and NOx, total specific BAT- AELs in kg/ADt for a mill can be calculated by adding the relevant levels for these three point sources in the respective tables. |
| (nr 1). | Sweden accept that no changes are made of the structure in the current BREF Pulp and Paper. Sweden propose that this would be discussed as a general issue in the Forum and in IEEG. |
| I that almost all Member States use ELVs for In shorter time periods. It would improve the ELs would have been included. Several Member Ing the last six years of data collection. This data BAT conclusions that include only BAT-AELs on terpretation and create relevant additional In of BAT in MS. | EIPPCB should ask for comparable short-term data from the beginning of future review processes and play a more active role with regard to this issue. |
| erage values will support: ng procedures for recording, reporting and the s), LVs, all Member States use ELVs for emissions to water ods. It would improve the usability of the document ided. Several Member States and mills operators a collection. This data covers different product ons should be the reference for setting permit clusions contain mainly yearly average values only, e for setting permit conditions. This opens the door sed on yearly averages, mainly for reason of ould severely undermine the principles of the IED ealth, pollution prevention and control and best furthermore it will undermine the established its on a short-term basis. | Short term average values (daily averages) shall be included in the BAT conclusions in addition to long term average values. EIPPCB should ask for comparable short-term data from the beginning of future review processes and play more active role with regard to this issue. BAT conclusions that include only BAT-AELs on yearly average values are incomplete, not in line with the provisions of IED, give room for misinterpretation and create relevant additional administrative burden when it comes to implementation in MS. Please note: this applies to the BREF revision process as a whole! |
| jor contributions to local air pollution. There is a lot ht not be recognized by Authorities in the permitting Il primarily use the BAT conclusions. | To add in the BAT conclusions a short statement, that information on applied techniques and emission and consumption levels for combustion plants < 50MW can be found in sections 2.7 and 2.10. |

| Overall Comment No. | Comment from | | Chapter / section No. | BATC # | Page # (pdf of July'13 Final Draft) | Comment description | Rationale | Proposal for modification |
|----------------------------|------------------|-----|-----------------------|--------|--|--|--|--|
| 18 | CEPI | 8 | | - | 780 | Split view number 1 on Generic on BAT conclusions. Emission levels associated with BAT. First paragraph last proposed sentence: "Where emission levels associated with the best available techniques (BAT-AELs) are given for different averaging periods, all of those BAT-AELs apply." | it view 1 on BAT formulation a key issue for the European pulp and paper industry. CEPI do not support current text on formulation of BAT that was introduced by the European IPPC Bureau after the final TWG eting as well as the split view assessment by the Bureau where it was concluded that this is an issue rond the mandate of the TWG. Consequently, this sentence cannot be added to the document as a result he final TWG meeting, but should be deleted. | Delete the sentence: "Where emission levels associated with the best available techniques- (BAT-AELs) are given for different averaging periods, all of those BAT-AELs apply." |
| 19 | Finland | 8 | | - | 780 | The interpretations of the applicability of BAT-AELs given with different time base for a certain parameter and process is differing and wasn't properly discussed in the TWG. Finland has been of the opinion that they should be seen as alternatives. The current wording is too restrictive and can be seen as a interpretation of the Directive. | he assessment of the Finnish split view on the issues, the EIPPCB stated that the BREFs should not ude interpretations of the implementation of the IED. The current sentence Finland proposes to delete is a ar interpretation and should therefore be removed from the BREF | Delete text "Where emission levels associated with the best available techniques (BAT- AELs) are given for different averaging periods, all of those BAT-AELs apply" |
| 20 | Portugal | 8 | | - | 780 | The BREF is not the correct place to address issues concerning the interpretation The D of Industrial Emissions Directive. | e Directive and the way it must be implemented is not dependent on a particular BREF. Including a phrase t is strictly a opinion on the interpretation of the Directive implementation may lead to different erpretations in different BREFs. | Delete the wording "where emission levels associated with the best average techniques (BAT- AELS) are given for different averaging periods, all of those BAT-AELs apply" |
| 21 | Sweden | 8 | | - | 780 | "General considerations; Emission levels associated with BAT". In the first paragraph is said how BAT-AELs for the same parameter but with different units or different averaging periods should apply. The text emanate from the interpretation that was done by the Commission at the TWG-meeting, which was declared as a fact that was not to be discussed. The interpretation thus does not reflect a consensus among the member states. This is a general issue that concerns all BREFs. For that reason a general interpretation of this kind should not be done in a certain BREF. Sweden has raised a split view (nr 5) on this subject. | our opinion BAT-AELs preferably should be set as yearly averages and loads. When there is need for short- n emission levels it should for the actual process and parameter be decided if the BAT-AELs shall apply as ernatives or complementary. For the complete rationale we refer to the raised split view (nr 5). | Following the raised split view the paragraph should be replaced with the following text: "Where emission levels associated with the best available techniques (BAT-AELs) are given for different averaging period and/or different units (e.g. concentration and specific load values (i.e. per tonnes of net production), those different ways of expressing BAT-AELs are to be seen as equivalent alternatives, if it is not specific expressed for a certain BAT-AEL." Furthermore the issue should be discussed in the Forum and in the IEEG on a general basis. |
| 22 | Austria, Germany | y 8 | | - | 780 | The definition of the yearly average (load) as concluded by the TWG seems complicated and the calculation method is not obvious. Possibly it will lead to different ways of calculations in Europe. It should therefore be illustrated with an example what is meant by weighted average in order to avoid calculation mistakes and different calculation methods in different Member States. From our point of view, it would be much easier to use the calculation method proposed by Germany after the TWG meeting with regard to this issue. | ange of the definition of yearly average (load) to: Sum of all daily loads divided by the sum of all daily duction rates within a year, expressed as mass of emitted substances per unit of mass of product nufactured. | Please see the following example calculated with our method: day 1: Production = 1.000 t/day, COD emission = 1.500 kg/day specific load = 1.5 kg/t day 2: Production = 200 t, COD emission = 600 kg specific load = 3 kg/t Averaging those values without weighting: $(1,5 \text{ kg COD/t} + 3 \text{ kg COD/t})/2 = 2,25 \text{ kg COD/t}$. This would obviously give a wrong impression since the production rate is significantly different on the two days. Values from days with low production weight more in this calculation than days with high production (and therefore high daily load). We agree therefore with the BREF proposal that those values should be weighted according to the daily production. The easiest way to calculate would be: $(1.500 \text{ kg CSB} + 600 \text{ kg CSB})/(1.000 \text{ t} + 200 \text{ t}) = 1.75 \text{ kg COD/t}$. Calculating for every single day a weighted average is then not necessary. |
| 23 | Austria, Germany | y 8 | 1 3 | 5 | 787 | Discussion of BAT associated performance level for waste water flow was not based on technical considerations. It seemed that the goal of increasing the performance levels was simply to include almost all mills in the range. It seems to contradict the definition of BAT - "the most effective and advanced stage in the development of activities and their methods of operation ()" - when the emissions of almost all reported paper mills are within the BAT-AE(P)L-range. E.g. for non-integrated paper mills all mills except one are now in the BAT associated consumption range for waste water flow (BAT-AEPL). And this although the water consumption levels are definitely no legally binding BAT- AELs. | ing the discussion of the final TWG meeting there were no convincing technical reason mentioned why the el for folding box board production based on RCF has increased since 2001. The highest water isumption for tissue mills based on RCF in Germany is 15 m ³ /t. The average waste water flow of all paper s in Germany is 10 m ³ /t. There should be more focus on the waste water flow since national ELVs are inly based on concentration values which can be achieved by dilution also. | As examples, the upper end of the BAT consumption level for RCF paper mills without deinking should be lowered at least to 7 m ³ / t (BREF 2001), the lower end of the BAT-AEPL for non-deinked RCF paper should start at 0 m ³ /t; the upper limit for RCF based tissues with deinking should be lowered to 20 m ³ / t, and non integrated paper mills should be lowered to 15 m ³ /t |

| Overall Comment No. | Comment from | | Chapter / section No. | BATC # | Page # (pdf of July'13 Final Draft) | Comment description | Rationale | Proposal for modification |
|----------------------------|------------------|-------|-----------------------|-------------|--|---|---|---|
| 24 | Italy | 8 1 | 3 | 5 | 787 | BAT 5: The upper end of BAT-associated environmental performance levels for the waste water flow at the point of discharge after waste water treatment for mechanical, CTMP and CMP does not properly reflect the performances of all mills applying the BAT for the sector concerned, clearly well operated and efficiently maintained, taken as a reference during the TWG final meeting for deriving the "BAT-AEPs range". | Concerning the upper end of BAT-associated environmental performance levels for the waste water flow at the point of discharge after waste water treatment set for mechanical, CTMP and CMP Italy submitted a formal dissenting view to the EIPPC Bureau, with the related underlying rationale (9 May 2013). As a general comment, Italy is of the opinion that all plants, applying a suitable set of BATs, clearly well operated and efficiently maintained, should be used as reference for deriving BAT AELs as well as BAT AEPLs. To this extent, Italy would reiterate that the Italian plant ("Burgo Group S.p.A. – Duino") involved in the EIPPCB data collection exercise for mechanical, CTMP and CMP sector, is a mill well designed, built, maintained and operated, fulfilling the requirements of the IPPC Directive, by means of measures and conditions laid down in the IPPC permit. Accordingly, the plant was selected to host an EIPPCB site visit (organized in November 2012), having regard to its overall technical characteristics as well as the importance that such a mill holds both at national and European level. Thus, Italy firmly believes that the opint of discharge after waste water treatment for mechanical, CTMP and CMP does not properly reflect the performances of all mills applying the BAT for the sector concerned, taken as a reference during the TWG final meeting for deriving the "BAT-AEPs range". Moreover, Italy also deems worth that the overall performances of the mills (i.e. COD, TSS, Total Nitrogen and Total phosphorous performances) have to be carefully taken into account when deriving the appropriate BAT-AEPLs ranges for the waste water flow for the sector concerned. In consideration of the foregoing, Italy requests a reassessment of the data available for such a purpose, since there is no technical reason to exclude from the analysis those IPPC installations, applying BAT, with proven environmental sustainability in the context of the site in which the activities are taking place. Finally, in view of the future revision | Italy proposes to modify the upper end of the BAT-AEPL range for the waste water flow at the point of discharge after the waste water treatment for mechanical, CTMP and CMP, by setting 24 m3/ADt (as a yearly average). Furthermore, Italy recommends to add a remark in Chapter 9 on "the need of reassessing the BAT-associated consumption levels for the waste water flow at the point of discharge after the waste water treatment taking into account the overall performances of plants also in terms of emissions (i.e. COD, TSS, Total Nitrogen and Total phosphorous performances)". |
| 25 | Austria, Germany | y 8 1 | 4 | 6 | 788 | Energy consumption is a key environmental issue in P&P mills, energy efficiency is one of the criteria for determining BAT according Annex III IED; data have been provided also. A lot of effort has been made during the years of the revision of the PP BREF to collect and discuss data on energy consumption. Values have been proposed in Draft 2. The values have been moved from the BAT conclusion chapter to the product-related chapters without big discussion. Austria thinks that the data basis was sufficient enough to propose BAT associated performance levels on heat and power consumption for most pulp and paper grades. | Energy consumption is a key environmental issue in P&P mills, energy efficiency is one of the criteria for determining BAT according Annex III IED; data have been provided also. | Include the specific energy consumption as environmental performance level associated with BAT in chapter 8. |
| 26 | Austria | 8 | | 9 | 790 | Monitoring of air emissions - Dust from Recovery Boilers. The BAT conclusion on the monitoring frequency for Dust is less ambitious than the IED, Annex V, Part 3: "The concentrations of SO2, NOx and dust in waste gases from each combustion plant with a total rated thermal input of 100 MW or more shall be measured continuously." Recovery Boilers are combustion plants in the definition of the IED ('combustion plant' means any technical apparatus in which fuels are oxidised in order to use the heat thus generated) and are only exempted from complying with ELVs of Part 1 and 2, not from the Monitoring obligations. However, the BAT conclusions also include periodic monitoring of dust emissions. | Continuous monitoring of dust emissions from Kraft Pulp recovery boilers is current practice. | To change monitoring frequency for dust (Kraft Pulp) to continuous. |
| 27 | Spain | 8 2 | 2 2 2 | 2 21, 22 | 797 | Spain does not agree with the daily BAT-AEL for SO2 in BAT 21 and with the upper range of the yearly load for total sulphur emissions in BAT 21. Spain does not agree either with the footnote of Table 8.3 in BAT 22. | Information provided to support split view number 6 | Remove the daily BAT-AEL for SO2 and increase the upper range of the yearly BAT-AEL for total sulphur emissions to 0.21 kg/Adt. Modify footnote 1), that should read as follows: " NOx and SO2 emissions depends on DS content in black liquor. For lower DS content SO2 emissions are higher and NOx emissions are lower. Due to this cross media effects when reducing NOx is a priority, SO2 emissions levels higher than upper level may occur. The best option is to find the appropriate balance for all parameters case by case depending on local needs." |

| Overall Comment No. | Comment from | Chantor / contion Mo | | BATC # | Page # (pdf of July'13 Final Draft) | Comment description | Rationale | Proposal for modification |
|----------------------------|--------------|----------------------|-----|--------|--|--|---|---|
| 28 | CEPI | 8 2 | 2 2 | 21 | 798 | Split view 6 on BAT 21. TWG conclusion on the BAT-AELs on SO2 (daily average) and Total S (yearly average) for recovery boilers in Kraft mills. A dissenting view was expressed by Spain and CEPI, supported by Portugal, who consider that the upper end of the BAT-associated emission level (BAT-AEL) as a yearly average for Gaseous S for recovery boilers in Kraft pulp production (BAT 21), should be increased from 0.17 to 0.21 kg S/ADt. In the same dissenting view it was also expressed that there is not enough sound information on the data base to derive daily average BAT AEL's. | Split view 6 on BAT 21 a key issue for the European pulp and paper industry. The BAT-AEL covered by this issues was not discussed at the final TWG meeting in Seville on 22-26 April 2013. In fact, to set this BAT AEL it was used information available from only 15 mills from which only 13 presented 95 percentile values, some presented maximum values and most of the data sets don't clarify if it refers to all days or if it were excluded other than normal operating condition. From these, only 8 data sets can be related to yearly averages below the BAT-AEL for this long term time span. This means that BAT-AEL for daily average are being derived with 8 out of 77 European Kraft pulp mills (approx 10%). Comparing these parameter with dust emissions, where it was correctly decided by TWG not to derive BAT-AELs, it is possible to verify that there is available data from 12 mills with 5 data sets where is possible to relate short-term data and yearly averages, which in terms of representativeness is in the some order of magnitude of SO2 data (see Fig. 3.52 p. 306 and Fig. 3.69). Even with this very small number of available it is also possible to conclude that the 70 mg/m3N BAT-AEL is not correctly derived, because, mills with BAT implemented and with yearly average values well below the BAT AEL (50 mg/m3N) cannot meet this daily BAT-AEL, for instance (see Fig. 3.52 p. 306): i) Celbi mill reported all data and presented a 95 percentile of 79 mg/m3N; and ii) Soporcel and Viana mill reported only data from normal operating conditions. Therefore we must take into account the reported maximum, and presented maximum levels of 72 and 90 mg/m3N. With available data, a BAT-AEL of approximately 100 mg/m3N should be derived. CEPI comments on the EIPPBC assessment of the split view are available on BATIS: comments (ENV/179/13) and justification (EN/153/13). | The split view also included opposition to the set daily average values as the supporting data in similar cases had been found insufficient. CEPI therefore reiterate the request to delete daily average values for SO2 for recovery boilers in Kraft pulp production (BAT 21); however, if daily average values are kept in, they need to be increased from 70 to 100 mg/Nm3 (DS<75) as indicated by the related available BAT mill performance data. |
| 29 | France | 8 2 | 2 2 | 21 | 798 | BAT 21 - Recovery boilers- SOx emissions (table 8-3) : At the final meeting of the TWG for the review of the PP BREF, it was decided to review the initial proposal of the EIPPCB Bureau concerning the range of BATAEL for SOX emissions (DS< 75 %) : it was proposed to set the upper range of the range at 70 instead of 130 mg/Nm3 in the BP proposal. France did not and does not support such a conclusion. A split view was expressed by France on this subject but was refused by EIPPCB as not supported by appropriate technical data relevant to the definition of BAT. France doesn't' agree with this judgement and maintains her will to revise this value or delete it as proposed in relevant split views accepted by the EIPPCB presented by Spain and CEPI. | Considering the small amount of data (9 mills) available in BATIS and used to settle this short term value, the use of 95 th percentile (cf. figure 3.52), the fact that French data about recovery boilers emissions sent to EIPPCB in 2006 and 2009 in the questionnaires 1 "marked bleached Kraft pulp" and 2. "Partly integrated Printing Paper", describing two BAT sites are still missing and that the data of the questionnaire 1 are not fitting the ranges proposed, considering a Spanish document posted on Baits in July 2012 and entitled "Variability analysis of Recovery Boiler and Lime kiln Pulp and Paper Industry AIR emissions over different averaging periods", showing that the mean of emissions in different averaging periods vary significantly in Pulp recovery boilers, even with the BAT (the variability between daily values and annual values can reach a factor of 2.5), the upper range should be settled at 130 mg/Nm3 or completely deleted for the sake of consistency with others parameters. | Considering the relevant split views expressed by Spain and CEPI on this subject, this short term value should be deleted as not well settled for the reasons expressed in the rationale. If a value has to be settled, French split view proposed to keep the initial proposal of the EIPPCB bureau on this question for concentrations and to review the yearly average : SO2 DS< 75% : Daily average = 10-130 mg/Nm3 ;Yearly average = 5-50 mg/Nm3 Gaseous S DS< 75% : Yearly average = 0,03-0,21 kg/t |
| 30 | Poland | 8 2 | 2 2 | 21 | 798 | BAT-AELs for SO ₂ and TRS for recovery boilers should not be set as a daily average. | Data collected during P&P BREF revision are not sufficient for setting BAT AELs as short term values | Exclusion of BAT-AELs for SO2 and TRS set as a daily average from BAT Conclusions chapter |
| 31 | Portugal | 8 2 | 2 2 | 21 | 798 | The data available to derive values for SO2 short term AELs is not representative of the sector. For all the other pollutants, with a similar number of data sets, data was considered insufficient to derive BAT-AELs. | There were two different approaches concerning the number of data sets representative of the sector. The same approach should be used for SO2 as for the other pollutants. | Delete the daily average values from table 8.3 |
| 32 | Poland | 8 2 | 2 2 | 21 | 798 | The BAT-AEL range for the yearly average of Gaseous S (TRS+SO-S) for recovery boilers running on <75% should be modified | From the reason of specificity of the process and installation, when black liquor with high dry solid content about 80% or more is burned, the gaseous sulphur emission is usually on very low level apart from high sulphur content in the fuel. However, we would like to take attention that the range of DS given in the table 8-7 (BAT 27): DS<75% concerns also recovery boilers working at DS below 70%. This group of boilers should also has a chance to meet BAT AELs. Furthermore we support rationale presented in Spanish split view concerning SO2 emissions to air recovery boilers in Kraft pulping. | Upper end of the BAT AEL range should be increased from 0.17 kg S/ADt to 0.21 kg S/ADt. |
| 33 | Portugal | 8 2 | 2 2 | 21 | 798 | The value was not well derived from the base data. Looking at the data available on BATIS the correct value should be 0.03-0.21 kg/Adt for gaseous S (TRS-S + SO2-S. This value is consistent with the yearly average in concentration. | The values proposed were derived from the data available on BATIS. | Correct the values on table 8.3 |
| 34 | Sweden | 8 2 | 2 2 | 21 | 798 | BAT 21, Table 8.3. In split view nr 6 has been proposed concerning air emissions from Kraft recovery boiler: a) The daily concentration should be deleted or raised to 120 or 130 mg/nm3, 6% O2, b) The lower level for DS 75- 83% should be lowered to 0,12 kg/ADt. [only points listed where Sweden can support the split views] | a) Sweden has in memo April 19th 2013 before the TWG meeting proposed BAT-AELs as yearly concentrations and as yearly load. We therefore do not object that BAT-AEL for daily concentration is deleted. If the BAT-AEL for daily concentration will be kept we assess that there are arguments for putting it on a higher level. b) Following our original proposal of 0,10 kg S/ADt and the data presented in the BREF, we support that the level is lowered to 0,12 kg S/ADt. New data for Swedish mills, year 2011, shows that this level is achieved by all mills that can be said to have BAT technique. | a) Daily concentration can be deleted. If not, we can accept a somewhat higher level, b) The lower level for DS 75-83% can be lowered to 0,12 kg/Adt. |
| 35 | CEPI | 8 3 | 2 | 37 | 807 | BAT 37, Table 8.15. With reference to the two comments on chapter 4.2.2.5, Figure 4.34, page 413 regarding wrong dust emission values. Since the decision at the final TWG meeting on BAT-AELs concerning dust from recovery boilers was very much driven by the reported values in Figure 4.34 for that meeting, the BAT-AEL level in table 8.15 need to be re-evaluated in light of the corrected data. | Issue related to BAT 37. CEPI believes there has been a mistake. Technical explanation concerning dust emission level in sulphite pulp mills: The neutralisation of the liquor to a level of pH = 6,8 is an important precondition to reduce COD emission. To reach this restriction, it is necessary to increase the MgO-concentration up to 6,5 Vol%. The so increased partition of inorganics in the flue gas has a negative influence on the degree of separation in the electric precipitator. A mill producing 100% beech pulp is not covered by the increased emission level, which is defined for mills using beech as a partition in the wood mixture. Due to the high potassium-content of beech, the generation of aerosolic particles is increased and difficult to separate, causing higher dust emissions. Since this systematic is proportional to the beech content, even the increased dust emission level of 30 mg/Nm3 will not be achievable. | We propose to correct the BAT-AELS in BAT 37, Table 8.15, to 5-30 mg/Nm3. Footnote 1 should be changed to 40 mg/Nm3 at 5 % O2. |

| all Comment No. | comment from | | pter / section No. | BATC # | e # (pdf of July'13 Final Draft) | Comment description | Rationale | Proposal for modification |
|-----------------|---|-------|--------------------|--------|-------------------------------------|---|--|--|
| Ovei | 0 | | Cha | | Page | The note "the BOD concentration in the treated effluents is expected to be low According | ing to our best knowledge during the final meeting. TWG decided that in fact there is no need to set up. | The note "the BOD concentration in the treated effluents is expected to be low (around 25 |
| 36 | Poland | 8 | | 40 | 810 | (around 25 mg/l as 24-hour composite samples" placed below Table 8.2 of BAT 19, Table 8.13 of BAT 33, Table 8.17 of BAT 40, Table 8.19 of BAT 45 and Table 8.20 of BAT 50 should be deleted. | EL for BOD parameter. Therefore the meaning of the value 25 mg/l is unclear. Besides water usage is the core environmental parameters for paper production industry. That is why only concentration of parameter given without any references to wastewaters flows or pollutants loads will not work as an ve for reduction of water usage. | mg/l as 24-hour composite samples" placed below Table 8.2 of BAT 19, Table 8.13 of BAT 33, Table 8.17 of BAT 40, Table 8.19 of BAT 45 and Table 8.20 of BAT 50 should be deleted. |
| 37 | Austria, Germany | y 8 5 | 5 2 | 45 | 812 | Especially for the product group processing paper for recycling without deinking, Germany provided nine complete data sets comprising emission data over a whole year for all parameters (see figures 6.14-6.25) in the current Draft. From these 9 examples, emission data for a whole year could have been assessed and statistical calculations presented. Therefore, it is difficult for us to understand the rationale given by the EIPPCB that available data were not sufficient to derive BAT conclusions expressed as daily average values. Additionally the EIPPCB did not specify what a sufficient data set to derive BAT conclusions is. From our point of view, nine data sets are sufficient data taking into consideration that only three or four sets of data were used for deriving the yearly average based BAT-AELs for CTMP and CMP mills. And these data were considerably less detailed and precise. | all Member States use ELVs for emissions to water based on daily averages or even shorter time a. It would improve the usability of the document substantially if short-term BAT-AELs would have been d. Germany did provide 25 sets of emission data on all parameters for a whole year shortly after the enting period on Draft 2.These data cover different product groups and paper grades. Also other er States did provide short-term data during the last six years of data collection. No relevant and visible was carried out by the EIPPCB that would have been necessary for deriving short-term BAT-AEL. I, the position of the EIPPCB was simply to say "no sufficient data were available to derive reliable BAT- n a daily basis". | Include BAT AELs for emissions to water as daily averages at least for the product group of processing paper for recycling without deinking. See also dissenting views from Germany and Austria. |
| 38 | Italy, France, Poland, Netherlands, Spain, Denmark | 8 5 | 5 2 | 45 | 812 | BAT 45 Regarding In Table 8.18, the upper end of the BAT-associated emission levels for Total phosphorous for the waste water discharge to receiving waters from the integrated production of paper and board from recycled fibres pulp, produced without deinking on site, does not properly reflect the performances of all mills applying the BAT for the sector concerned, clearly well operated and efficiently maintained, taken as a reference during the TWG final meeting for deriving "BAT-AELs" for the sector concerned. Regarding discharge to receiving waters from the burget of the sector concerned is the TWG final meeting for deriving "BAT-AELs" data availa BAT-AELs compared use of recy products not the general sector concerned is the general sector concerned. | ing the upper end of BAT-associated emission levels for Total phosphorous for the waste water ge to receiving waters from recovered paper processing paper mills without deinking Italy submitted a dissenting view to the EIPPC Bureau, with the related underlying rationales (note sent to the EIPPC on 9 May 2013). To this extent, Italy would reiterate that the upper end of the BAT-associated on levels for Total phosphorous for the waste water discharge to receiving waters from the integrated tion of paper and board from recycled fibres pulp, produced without deinking on site, does not properly the performances of all mills applying the BAT for the sector concerned, taken as a reference during G final meeting for deriving "BAT-AELs" for the sector concerned. As a matter of fact, a careful ment of the data reported in Figure 6.18 (Final Draft, page 584) would lead to conclude that a relevant r of mills, already applying the BAT, well operated and efficiently maintained would not comply with the ELs upper level of 0,005 kg/t set in the Table 8.18. Thus, Italy firmly requests a reassessment of the ailable for such a purpose, since does not see any relevant technical reason to set more restrictive ELs for Total Phosphorous in the sector of recovered paper processing paper without deinking, red to the other papermaking processes. On the contrary, it may consequently prevent and affect the recycled fibers in general, e.g. also in the possible development of those kind of new manufactured ts now only associated to the use of virgin fibers. Furthermore, such orientation seems to go against teral principle supported at EU level of promoting a "Recycling Society". | Italy proposes to modify to 0,01 kg/t (as yearly average) the upper end of the BAT-AEL range for Total phosphorous for the waste water discharge to receiving waters from recovered paper processing paper mills without deinking. |
| 39 | CEPI | 8 5 | 5 2 | 45 | 812 | BAT 45 - Total Phosphorous in water emissions from RCF without deinking (table 8-18) and split view 8. TWG conclusion on the BAT-AEL on total phosphorus for RCF mills (0.001–0.005 kg/t). A dissenting view was expressed by Italy, supported by France, Poland and CEPI, who consider that the upper end of the BAT-associated emission level (BAT-AEL) on total phosphorus for waste water discharges to receiving waters from the integrated production of paper and board from recycled fibres pulp produced without deinking on site should be increased from 0.005 to 0.01 kg/t, as a yearly average. At the final meeting of the TWG for the review of the PP BREF, it was also decided to keep the BAT Associated emission level for Total Phosphorous for the waste water discharge to receiving waters from recovered paper processing paper mills without deinking as proposed by the EIPPC Bureau in the "Background Paper", i.e. 0,001 – 0,005 kg/t, as yearly average. | ew 8 on BAT 45 is a key issue for the European pulp and paper industry. The BAT-AELs would be as stated in the split view assessment, and the BREF-PP proposal should be amended accordingly. I French BAT mills, as reported during the TWG and according to the data France sent to the EIPPCB 2012 in the note titled "French comment concerning the increase of BATAEL ranges", do have levels uphorus emissions to water over 0,005µg/l in yearly average specific load : Extract of the prequoted age 1: "() For two French integrated RCF mills without deinking (Emin Leydier -Champblain and Emin -Nogent) using a combination of BAT (47, 48, 49), the emissions are above the proposed BATAEL for marameters : -() Phosphorus : 0,006 and 0,008 kg/t." Indeed, effluents from pulp and paper mills are lly deficient in nitrogen and phosphorus required by the biological wastewater treatment plants. These ts must be added to the treatment plant at the entrance, in proportion to the organic load. Variations of lution load, in accordance with the quality variations of recovered papers, lead to a delicate balance in these nutrients, that can sometimes appear in excess in water emissions. The figure 6,18 page 584 ic tot-P load as yearly average after waste water treatment from mills processing paper for recycling deinking shows that 1/3 of the BAT sites can't reach the BATAEL of 0,005kg/t. A proper ment of all the data available would lead to the conclusion that a relevant number of the mills, already g the BAT for the sector concerned, well operated and efficiently maintained (11 out of 38 mills), would ve the upper level of the BAT-AEL of 0.005 kg/t set for total phosphorus. Setting BAT-AEL for total iorus may consequently prevent the use of recycled fibres in general. | Upper end of the BAT-AEL (BAT 45) on total phosphorus for waste water discharges to receiving waters from the integrated production of paper and board from recycled fibres pulp produced without deinking on site should be increased to 0.01 kg/t as a yearly average. |
| 40 | Germany | 8 5 | 5 2 | 45 | 812 | BAT AEL for TSS: The parameter TSS is not really needed especially if the BAT- ranges are very large (e.g. 0.02 -0.45 kg/t table 8.18 in combination with footnote 2). Normal TSS concentrations with well designed and operated BAT (sedimentation tank or microfiltration are ≤30 mg/l as yearly average). It seems that the proposed BAT-AEL ranges in some cases include also mills that may not operate according to BAT. | esigned and operated sedimentation tanks or microfiltration achieve normally \leq 30 mg/l TSS, ined as yearly average. 0.45 kg TSS/t results in a concentration value of 45 mg/l when 10m ³ /t waste ow is assumed. However, most mills of this product group have a waste water flow of around 5 m ³ /t. ould mean that the TSS concentration according to BAT can reach values up to 90 mg/l. These trations can obviously also be achieved by non-BAT-paper mills. The footnote is not technically I but result of a statement of a TWG member that was not supported by convincing facts. | Delete the value for TSS as yearly average (load), or lower the range in a reasonable way. Delete the footnote 2 in table 8.18 that basically means that also all those paper mills that still have problems to meet the relatively high BAT-AEL for TSS will have good reasons (excuses) for it. |

| Overall Comment No. | Comment from | | Chapter / section No. | | Chapter / section No. | | Chapter / section No. | | Chapter / section No. | | Chapter / section No. | | Chapter / section No. | | Chapter / section No. | | Chapter / section No. | | Chapter / section No. | | Chapter / section No. | | Chapter / section No. | | Chapter / section No. | | BATC # | Page # (pdf of July'13 Final Draft) | Comment description | Ration |
|----------------------------|--------------|--------|-----------------------|--------|-----------------------|----------|-----------------------|--|--|--|-----------------------|--|-----------------------|--|-----------------------|--|-----------------------|--|-----------------------|--|-----------------------|--|-----------------------|--|-----------------------|--|--------|--|---------------------|--------|
| 41 | Sweden | 8 8 | 5 6 | 2 1 | | 45 50 | 812 815 | In BAT 45, Table 8.18, BAT-AEL for COD from "integrated production of paper and board from recycled fibres pulp, produced without deinking on site" the upper level is set to 1,4 kg/t. In BAT 50, Table 8.20, BAT-AEL for COD from "non- integrated paper and board mills (excluding specialty paper)" the upper level is set to 1,5 kg/t. This is not logical. "Papermaking" is a sub-process in "integrated production of paper and board from RCF pulp". The BAT-AEL for the sub-process can not be higher than the BAT-AEL for the whole process. | It is essential that the BREF as a whole and particularly th will be difficult to maintain respect and compliance among erroneous figures in BAT 45 and 50 will in our view depend should be possible to correct this with a written procedure | | | | | | | | | | | | | | | | | | | | | |
| 42 | Sweden | 8 | 5 | 2 | | 45 | 813 | In BAT 45, Table 8.18 concerning RCF <u>without</u> deinking the upper level for TSS is 0,2 kg/Adt. To this figure there are a footnote (nr 2) that says "2) For existing RCF mills without deinking, levels up to 0,45 kg/t may occur due to the continuous decline in the quality of recovered paper and the difficulty of continuously upgrading the effluent plant." In table 8.19 concerning RCF <u>with</u> deinking the upper TSS-level is 0,3 kg/t in common and 0,4 kg/t for tissue paper. Unlike in table 8.18 there are no similar footnote about declining quality of recovered paper. | Problems with decline in the quality of recovered paper ou with deinking as without deinking. It is essential that the Ba similar footnote in table 8.19 will in our view depend on an possible to correct this with a written procedure to achieve both for RCF without and with deinking in this matter. We i.e. plus 0,25 kg TSS/t. | | | | | | | | | | | | | | | | | | | | | |
| 43 | CEPI | 8 | 5 | 3 | | 46 | 813 | Applicability BAT 46a (high consistency pulping for disintegrating paper for recycling into separated fibres): New plants and for existing plants in case of major refurbishment. | Issue related to BAT46a. According to new information fro BAT46a should be reassessed. By Austria/Austropapier (N "For board and packaging grades made from recycled fibe as well as high consistency (HC) pulping systems. Both sy parameters are raw material (easy or hard to pulp), reject requirement, capital investment, customer preferences, et Voith Paper recommends HC systems. For pulping of grap issue. This is achieved more effectively at higher consiste of chemicals." | | | | | | | | | | | | | | | | | | | | | |

| ale | Proposal for modification |
|---|---|
| e BAT-AELs are consistent and logical. Otherwise it competent authorities and operators. The d on an oversight and mistake by the TWG. It to achieve consensus for a better regulation. | BAT-AELs for COD from "integrated production of RCF paper" (BAT 45, Table 8.18) and from "papermaking" (BAT 50, Table 8.20) should be scrutinized by the EIPPCB to get a logical relationship between the two BAT-AELs. The TWG should be given opportunity to provide comments on a draft in this issue. |
| ght to be the same in RCF mills producing paper AT-AELs are consistent and logical. The lack of a oversight and mistake by the TWG. It should be consensus for a better regulation. Data is poor think that it is logical to do the same level of raising, | In table 8.19 the following footnote should be added: "For existing RCF mills with deinking, levels up to 0,55 kg/t and for tissue up to 0,65 kg/t may occur due to the continuous decline in the quality of recovered paper and the difficulty of continuously upgrading the effluent plant". |
| m equipment suppliers the applicability of technique Alichael Frey/Rondo Ganahl AG), support by Voith. r, Voith Paper recommends low consistency (LC) restems have a similar energy consumption. Decision content, production capacity, flexibility, space c. For graphical grades made from recycled fibers obical grades the ink detachment is an important ncies. In addition HC-pulping reduces the demand | Applicability BAT 46a. Change applicability statement to: "New plants and for existing plants in case of major refurbishment. Applicability may be restricted by low quality of paper for recycling, production capacity and space requirements to insert equipment (for existing mills)." |