

Annex A to the opinion of the IED article 13 forum on the content of the BREF for Glass Manufacture (consensual comments)

Comment No.	Chapter No.						Chapter title	BAT	Page # (PDF version)	Comment description	Proposed amendment	Rationale
	1	2	3	4	5	6						
1	1	2					0	3		4th §: "...if they coincide with furnace rebuild." should be read "coincide".	editorial remark	
2	1	4	2				0	14		The majority of rolled glass...and accounts for around 3.5% of the total...	coherence of figures for rolled glass in section 1.4.1 p12 and 1.4.2	
3	1	6	1				0	20	Number of installations >20/d in the text and table 1.12 is 61. In Table 1.11, it is 60	Correct table 1.11	coherence of figures	
4	2	3					0	46	End of secon §: In the first half of the century...	Should be read : the XXth century	editorial remark	
5	2	5					0	56	1st§: ...inChapter 0.	should be read: Chapter 1	editorial remark	
6	3	2	2	1			0	85	In the sentence above the table 3.4 a reference is made to the TA Luft of 1986	Update this information and write TA Luft 2002	Update of information	
7	3	3					0	93	1st§: As described in Chapter 0	should be read: Chapter 1	editorial remark	
8	3	5	3				0	124	Align the last sentence of the second §	...higher than the values presented in Table 5.5 as ...	editorial remark	
9	3	6					0	127	1st §: As described in Chapters 0 and 2...	should be read : ...Chapters 1 and 2...	editorial remark	
10	3	7	3				0	138		En of last §: "delete" above for four example processes" printed a second time	editorial remark	
11	3	8	2	1			0	142	3rd § : The lower line presented in Figure 3.8...	should be read : in Figure 3.9...	editorial remark	
12	1	4	2				0	146	The § after Table 3.41: ...arc electric furnaces are presented in Table 3.48 and Table 3.43.	should be read :Table 3.42 and Table 3.43	editorial remark	
13	3	8	2	3			0	151	1st § : ...and stone wool productions is given in Section 4.5.6, Table 4.38.	should be read ...Section 4.5.6, Table 4.40.	editorial remark	
14	3	10	3				0	160	Align the last sentence of the second §	...higher than the values presented in Table 5.5 as ...	editorial remark	
15	4	1					0	162	It should be clarified that the whole life cycle of an installation is covered in this chapter.	Add at the end of the first paragraph: They will include both technology used and the way in which the installations are designed, built, maintained, operated and decommissioned.	The proposed text is taken from the draft guidance document under IED Article 13 (3) (c) from 24 June 2011 (p. 15).	
16	4	1					0	162	Not only reuse but also techniques for reduction of the use of materials, water and enregy are part of this chapter. In addition, also other important aspects of this chapter are missing.	Insert in the last line of the second paragraph: ... are also considered as well as the optimization of the use and the reuse of materials, water and energy. The techniques described cover those which reduce the use of raw materials, water and energy, as well as measures used to prevent or to limit the environmental consequences of accidents and incidents and site remediation measures. They also cover measures taken to prevent or reduce pollution under other than normal operating conditions (such as start-up and shutdown operations, leaks, malfunctions, momentary stoppages and the definitive cessation of operations).	The proposed inserted text reflects the provosions of the draft guidance document. The last sentence added is taken from the draft guidance document under IED Article 13 (3) (c) (p. 16), amended so that the text fits to the paragraph above..	
17	4	1	Table 4.1			References	0	163	Applicability: in 1sr line there is a "which" too much. Delete the first "which"	"An indication of the type of plants or processes in the sector to which....."	editorial remark	
18	4	4	1	2			0	196	In the § after the last bullet point: Align the sentence	...in Section 8.1.7, Table 8.7 where...	editorial remark	
19	4	4	1	3			0	200	last but one §:Align the sentence	...also Section 8.1.7, Table 8.7 , for specific.....	editorial remark	
20	4	4	2	1			0	214	last line before Cross-media effect...in Section 4.5.1	should be read : ...in Table 4.15	editorial remark	
21	4	9					0	318	The aspect that the EMS is a reiterative dynamic model, which was part of the former standard texts, is missing.	Technical description: add at the end of the 4th paragraph: The cycle is a reiterative dynamic model, where the completion of one cycle flows into the beginning of the next, see Figure [Author/Secretariat: cross-reference the appropriate caption number]. Add the figure on p 9 of IEF 22-4-3 (7 April 2010)	The proposed text is taken from the corresponding chapter of the document IEF 22-4-3 (p. 9).	
22	4	9					0	318	The information on standardised and non-standardised EMS is missing, which was part of the former standard texts.	Please add the last paragraph on p. 9 and the first paragraph from p. 10 of document IEF 22-4-3 (7 April 2010), concerning standardised and non-standardised EMS.	Important information of the former standard texts.	
23	4	9					0	319	The information on standardised and non-standardised EMS is missing, which was part of the former standard texts.	The following text to be re-inserted in Section 4.9, under 'Technical description': "An EMS can take the form of a standardised or non-standardised ('customised') system. Implementation and adherence to an internationally accepted standardised system such as EN ISO 14001:2004 can give higher credibility to the EMS, especially when subjected to a properly performed external verification. EMAS provides additional credibility due to the interaction with the public through the environmental statement and the mechanism to ensure compliance with the applicable environmental legislation. However, non-standardised systems can, in principle, be equally effective provided that they are properly designed and implemented".	The deleted text does not mention EMAS, which was part of the former standrad texts. Important information of the former standard texts.	
24	4	9				References	0	321	Rockwool is mentioned as an example of an EMAS registered company. Correct. But as a consequence, meneral wool should be added in line 1	Example plants, section 2, line 1: "Other European installations producing container glass, glass wool, mineral wool, continous....."	Rockwool is an EMAS registered mineral wool production	
25	5						0	322	Definition for "normal furnace rebuild": define what a significant change means	Addition to the definition of 'normal furnace rebuild': "The refractory of the furnace and, where appropriate, the regenerators are repaired by the full or partial replacement of the material"		
26	5						0	322	The text could e.g. be introduced at page 322 before the list of other reference documents of interest.	Add in the introduction of the BAT conclusions the following: "The list of techniques described in the following sections is neither prescriptive nor exhaustive"	This chapter is the only that will be translated into all official EU-languages. It will probably often be read as a stand-alone document and it would therefore be helpful if this important text is repeated here.	
27	5						0	322	Need to clarify meaning of "SOx expressed as SO2"	Definition of SOx to be added	Should it be "NOx as the sum of NO + NO2 expressed as NO2"? Or are other NOx-compounds included and expected to be monitored to check compliance?	
28	5						0	322	Need to clarify meaning of "NOx expressed as NO2"	Definition of NOx to be added	Should it be just "SO2"? Or are there other SOx but SO2 present, and expected to be monitored to check compliance?	
29	5					General comment	0	322	Throughout chapter 5 BATAEL for HCl and HF are set. Both parameters are sum parameter which need to be defined somewhere in the document so that it is clear which substances are included in the sum parameters since this document is to be used as a stand-alone document. Especially for HCl and HF clarification is need since sometimes it is referred to "chlorides" and "fluorides" and sometimes to "hydrogen chloride" and "hydrogen fluorides".	Definitions of HCl and HF to be added	For the implementation clarification is necessary	
30	5					General comment	0	323	In table 5.1 only conditions for monitoring emissions to air are listed but not for water	Insert a reference under 'General considerations (page 324): Averaging periods for water emissions: "BAT-AELs refer to a composite sample taken over a time period of two hours or 24 hours".	Enhances the equal implementation	
31	5					General comment	0	324	Either delete the (new) first sentence:"BAT AELs given in Section 5.2 to 5.9 as specific mass emissions are based on the calculations below as well as on measured data" (as the remaining text already provides the necessary information in a better way) or change it to: "BAT AELs given in Section 5.2 to 5.9 as specific mass emissions are based on the calculations below except for oxy fuel fired furnaces where BAT AELs were derived from reported specific mass emissions". Since both, mass concentrations and emission factors are used parallel throughout this document, a sentence must be added to make clear that only one of the values (either concentration or emission factor) must be transposed. AGeneral considerations "conversion to reference oxygen concentration" :sentence "BAT-AELs given in sections 5.2 to 5.9 as specific mass emissions (kg/tonne melted glass) are based on the calculation reported below as well on measured data".	Chapter 5 - General considerations - page 324: Modify the sentence: "BAT-AELs given in Sections 5.2 to 5.9" to the following: "BAT-AELs given in Sections 5.2 to 5.9 as specific mass emissions (kg/tonne melted glass) are based on the calculation reported below except for oxy-fuel fired furnaces and, in a limited number of cases, for electric melting where BAT-AELs given in kg/tonne melted glass were derived from specific reported data."		

Annex A to the opinion of the IED article 13 forum on the content of the BREF for Glass Manufacture (consensual comments)

Comment No.	Chapter No. Section No.				Chapter title	BAT	Page # (PDF version)	Comment description	Proposed amendment	Rationale
32	5				General comment	0	324	Re-Add the following text from chapter 5 of the BREF after the paragraph starting: "The waste gas volume (Q) ...": "The waste gas volume depends mainly on energy consumption, type of fuel, and the oxidant (air, air enriched by oxygen and oxygen with a purity depending on the production process). The energy consumption is a complex function of (predominantly) the type of furnace, the type of glass and the cullet percentage. However, a range of factors can influence the relationship between concentration and specific mass flow, including: • type of furnace (air preheating temperature, melting technique) • type of glass produced (energy requirement for melting) • energy mix (fossil fuel/electric boosting) • type of fossil fuel (oil, gas) • type of oxidant (oxygen, air, oxygen-enriched air) • cullet percentage • batch composition • age of the furnace	Chapter 5 - General considerations - page 324: Insert the following text after the paragraph starting: "The waste gas volume (Q) ...": "The waste gas volume depends mainly on energy consumption, type of fuel, and the oxidant (air, air enriched by oxygen and oxygen with a purity depending on the production process). The energy consumption is a complex function of (predominantly) the type of furnace, the type of glass and the cullet percentage. A range of factors can influence the relationship between concentration and specific mass flow, including: • type of furnace (air preheating temperature, melting technique) • type of glass produced (energy requirement for melting) • energy mix (fossil fuel/electric boosting) • type of fossil fuel (oil, gas) • type of oxidant (oxygen, air, oxygen-enriched air) • cullet percentage • batch composition • age of the furnace"	
33	5				General comment	0	324	Re-Add the word "indicative" in the header of table 5.2, so it starts: "Indicative factors for converting mg/Nm ³ into kg/tonne ..."	Chapter 5 - General considerations - page 325: Change the title of Table 5.2 to "Indicative factors ..."	
34						0	324	precise in the format that the specific mass emission is expressed by tonne of glass melted.	Formula to be amended	
35	5	1	1			1	326	BAT 1: Important aspects, which are concerning the components of an EMS and which were part of the former standard texts, are missing.	Add the first paragraph the corresponding chapter of document IEF 22-4-3 (7 April 2010) (p. 19) as explanation of the applicability.	Important information of the former standard texts.
36	5	1	1			1	326	BAT 1: Important aspects, which are concerning the components of an EMS and which were part of the former standard texts, are missing.	Speak of top or senior management (instead of only "management"), as it was done in the former standard texts.	Important information of the former standard texts.
37	5	1	3			3	328	the addition of the restriction to hazardous substances in the brackets of technique vii has not been part of the TWG conclusion.	Delete the end of the sentence of technique vii. in the table, so that vii. is called: "Use of enclosed screw feeders."	Restriction is not part of Chapter 5 of the draft BREF and has not been discussed in the TWG.
38						3	328	Delete the end of the sentence of technique vii. in the table, so that vii. is called: "Use of enclosed screw feeders."	Restriction is not part of Chapter 5 of the draft BREF	
39	5	1	4			7	329	BAT 7: Techniques ii, iv, v and vi need clarification when being transferred to a legal document since it is not really clear what "regular periodic measurements" means. E.g. for techniques iii a clear definition of periodic measurement has been included.	Modify BAT 7 (ii) as follows: "Continuous monitoring of dust, NOx and SO2 emissions or discontinuous measurements at least twice per year, associated with the control of surrogate parameters to ensure that the treatment system is working properly between measurements"	Enhances the equal transfer into national law
40	5	1	4			8	330	A waste gas treatment system doesn't need to be operated at full capacity if lower capacities allow to respect the law.	Modify BAT 8 as follows: "BAT is to operate the waste gas treatment systems during normal operating conditions at optimal capacity and availability in order to prevent or reduce emissions"	It is unnecessary to operate waste gas treatment systems at full capacity. Surely if BAT is being achieved that is enough. eg. why should we input more lime into EP if SOx limit is being respected especially if it means that not all EP dust can be recycled so causes a waste?
41						10	330	BAT 10 : what means the word "generally" in the sentence "generally applicable to melting furnaces". It brings confusion	Delete generally or give information in order to explain when it is not possible	
42	5	1	5			13	331	BAT conclusions do not include monitoring conditions for the emissions in waste water	Insert a reference under "General considerations (page 324): Averaging periods for water emissions: "BAT-AELs refer to a composite sample taken over a time period of two hours or 24 hours".	
43	5	1	5			12	331	BAT 12: In the applicability of technique iii it is mentioned that open circuit cooling may be allowed when severe and rare incidents occur.	Modify the text on the applicability of technique (iii) under BAT 12 as follows: "Open circuit cooling may have to be used when safety issues require for it (e.g. incidents when large quantities of glass need to be cooled)"	Makes the point clearer
44	5	1	5			13	332	Change "Applicable to installations where further reduction of pollutants is necessary (e.g. container glass and continuous filament glass fibre)	Modify the text on applicability for BAT 13 (iii) as follows: "Applicable to installations where further reduction of pollutants is necessary"	The option to send water to a municipal waste water treatment plant is a perfectly acceptable option in terms of environmental consequence. There is no environmental consequence if water is discharged to a municipal waste water treatment plant as long as the waste water treatment plant is able to accept the water volume and quality coming from the glass plant. Container glass should therefore be included in the list of examples, next to continuous filament glass fibre
45	5	"2-7"				0	334	In the tables in sections 5.2- 5.7 the footnotes explaining the conversion factors used to derive specific mass emissions from concentrations have been deleted.	Footnotes to be reinserted	correct reflection of the agreed BAT conclusions
46	5	2	2			17	334	BAT 17: the applicability of technique (f) "fuel choice" is not limited by economic conditions of the member states. There is no such detailed information in chapter 4 I. primary techniques, i "(f) Fuel choice": Delete "by the constraints of the prevailing economic conditions and energy policy of member states". Add instead for the technique i. "(f) Fuel choice" the applicability (after the sentence starting "The applicability is limited ..." the sentence "Gas hook up (p.ex. to the public grid) is necessary."	Replace the text concerning the applicability of technique (i) (f) "Fuel choice" by the following: "The applicability may be limited by the constraints associated with the availability of different types of fuel, which may be impacted by the energy policy of Member States."	the influence of the economic conditions has never been discussed and is only mentioned with one part of the sentence in chapter 4 but not discussed, so that one can find further information on how to evaluate this issue.
47	5	2	3			19	336	BAT 19: the applicability of technique iii is not limited by economic conditions of the member states. There is no such specific information in chapter 4 Delete the whole column for applicability of this table or for the technique called: "Use of low sulphur content fuels" the applicability starting: "The applicability may be limited ...". Add the sentence: "Gas hook up (e.g. to the public grid) is relevant."	Replace the text concerning the applicability of technique (iii) "Use of low sulphur fuels" by the following: "The applicability may be limited by the constraints associated with the availability of low sulphur fuels, which may be impacted by the energy policy of the Member States."	
48	5	2	6			23	339	BAT 23: Values of table 5.13 only apply when the waste gas is treated separately from the furnace's waste gas	Change the title of Table 5.13: "BAT-AELs for SOx emissions from downstream activities when SO3 is used for the surface treatment operations in the container glass sector, when treated separately"	Clarification because without this addition it would mean that the lower values would apply to furnace which treat their waste gases jointly
49	5	3				0	340	Re-insert all footnotes to the BAT AELs explaining the conversion factors used to derive specific mass emissions from concentrations	Footnotes to be reinserted	Correct reflection of the agreed BAT conclusions
50						25	340	I. primary techniques: Add for the technique i. "(f) Fuel choice" the applicability (after the sentence starting "The applicability is limited ..." the sentence "Gas hook up (p.ex. to the public grid) is necessary."	Replace the text concerning the applicability of technique (i) (f) "Fuel choice" by the following: "The applicability may be limited by the constraints associated with the availability of different types of fuel, which may be impacted by the energy policy of Member States."	
51	5	3	3			27	342	BAT 27: the applicability of technique iii is not limited by economic conditions of the member states. There is no such specific information in chapter 4 Delete for the technique iii. called: "Use of low sulphur content fuels" the applicability starting: "The applicability may be limited ...". Add the sentence: "Gas hook up (access to the gas grid) is relevant."As access to the gas net is really a matter of applicability while MS energy policy is known to be less relevant for fuel change than ELVs for SO2. There are too many gas fired plants in Europe to consider fuel change a matter of economic viability. In General we do not want a BREF to state Member state policy is an applicability issue.	Replace the text concerning the applicability of technique (iii) "Use of low sulphur fuels" by the following: "The applicability may be limited by the constraints associated with the availability of low sulphur fuels, which may be impacted by the energy policy of the Member States."	
52	5	3	6			31	345	BAT 31: Values of table 5.21 only apply when the waste gas is treated separately from the furnace's waste gas	Change the title of Table 5.21: "BAT-AELs from downstream processes in the flat glass sector, when treated separately"	Clarification because without this addition it would mean that the lower values would apply to furnace which treat their waste gases jointly
53	5	4				0	346	Re-insert all footnotes to the BAT AELs explaining the conversion factors used to derive specific mass emissions from concentrations	Footnotes to be reinserted	Correct reflection of the agreed BAT conclusions
54	5	4	2			33	347	This remark is also valid for container glass	Add a footnote to Table 5.7, for oxy-fuel melting: "The achievable levels depend on the quality of the natural gas and oxygen available (nitrogen content)"	This footnote concerning NOx emissions for oxygen fired furnaces is not only valid for the continuous filament glass fibre sector
55	5	4	2			33	347	The footnote to Table 5.23: "The achievable levels depend on the quality of the natural gas and oxygen available (nitrogen content)"	Add a footnote to Tables 5.7, 5.15, 5.29, 5.39, 5.47, 5.62, for oxy-fuel melting: "The achievable levels depend on the quality of the natural gas and oxygen available (nitrogen content)"	This footnote concerning NOx emissions for oxygen fired furnaces is not only valid for the continuous filament glass fibre sector

Annex A to the opinion of the IED article 13 forum on the content of the BREF for Glass Manufacture (consensual comments)

Comment No.	Chapter No.				Chapter title	BAT	Page # (PDF version)	Comment description	Proposed amendment	Rationale
56	5	4	2			33	347	BAT 33: the applicability of technique (f) is not limited by economic conditions of the member states. There is no such specific information in chapter 4 Delete in column applicability for the technique ii. called: "Use of low sulphur content fuels" the applicability starting: "The applicability may be limited ...". Add the sentence: "Gas hook up (p.ex. to the public grid) is relevant." As access to the gas net is really a matter of applicability while MS energy policy is known to be less relevant for fuel change than ELVs for SO2. There are too many gas fired plants in Europe to consider fuel change a matter of economic viability. In General we do not want a Bref to state Member state policy is an applicability issue.	Replace the text concerning the applicability of technique (i) (f) 'Fuel choice' by the following: "The applicability may be limited by the constraints associated with the availability of different types of fuel, which may be impacted by the energy policy of Member States."	
57	5	4	3			34	347	BAT 34: the applicability of technique ii is not limited by economic conditions of the member states. There is no such specific information in chapter 4	Replace the text concerning the applicability of technique (iii) 'Use of low sulphur fuels' by the following: "The applicability may be limited by the constraints associated with the availability of low sulphur fuels, which may be impacted by the energy policy of the Member States."	
58	5	4	6			37	349	BAT 37: Values of table 5.27 only apply when the waste gas is treated separately from the furnace's waste gas	Change the title of Table 5.27: "BAT-AELs from downstream processes in the continuous filament glass fibre sector, when treated separately"	
59	5	5				0	351	Re-insert all footnotes to the BAT AELs explaining the conversion factors used to derive specific mass emissions from concentrations	Footnotes to be reinserted	Correct reflection of the agreed BAT conclusions
60	5	5	2			39	352	BAT 39: the applicability of technique (f) is not limited by economic conditions of the member states. There is no such specific information in chapter 4 I. primary techniques: Add for the technique i. "(f) Fuel choice" the applicability (after the sentence starting "The applicability is limited ...". the sentence "Gas hook up (p.ex. to the public grid) is necessary." As access to the gas net is really a matter of applicability while MS energy policy is known to be less relevant for fuel change than ELVs for SO2. There are too many gas fired plants in Europe to consider fuel change a matter of economic viability. In General we do not want a Bref to state Member state policy is an applicability issue.	Replace the text concerning the applicability of technique (i) (f) 'Fuel choice' by the following: "The applicability may be limited by the constraints associated with the availability of different types of fuel, which may be impacted by the energy policy of Member States."	
61	5	5	3			41	353	BAT 41: the applicability of technique ii is not limited by economic conditions of the member states. There is no such specific information in chapter 4 Delete for the technique called: "Use of low sulphur content fuels" the applicability starting: "The applicability may be limited ...". Add the sentence: "Gas hook up (p.ex. to the public grid) is relevant."	Replace the text concerning the applicability of technique (iii) 'Use of low sulphur fuels' by the following: "The applicability may be limited by the constraints associated with the availability of low sulphur fuels, which may be impacted by the energy policy of the Member States."	
62	5	5	6			44	357	BAT 44: Values of table 5.36 only apply when the waste gas is treated separately from the furnace's waste gas	Change the title of Table 5.36: "BAT-AELs from dusty downstream processes in the domestic glass sector, when treated separately"	Clarification because without this addition it would mean that the lower values would apply to furnace which treat their waste gases jointly
63	5	5	6			47	357	BAT 47: Value of table 5.37 only applies when the waste gas is treated separately from the furnace's waste gas	Change the title of Table 5.37: "BAT-AELs for HF from acid polishing processes in the domestic glass sector, when treated separately"	Clarification because without this addition it would mean that the lower values would apply to furnace which treat their waste gases jointly
64	5	6				0	358	Re-insert all footnotes to the BAT AELs explaining the conversion factors used to derive specific mass emissions from concentrations	Footnotes to be reinserted	Correct reflection of the agreed BAT conclusions
65	5	6	2			49	359	BAT 49: the applicability of technique (f) is not limited by economic conditions of the member states. There is no such specific information in chapter 4	Replace the text concerning the applicability of technique (i) (f) 'Fuel choice' by the following: "The applicability may be limited by the constraints associated with the availability of different types of fuel, which may be impacted by the energy policy of Member States."	the influence of the economic conditions has never been discussed and is only mentioned with one part of the sentence in chapter 4 but not discussed, so that one can find further information on how to evaluate this issue.
66	5	6	3			51	360	BAT 51: the applicability of technique ii is not limited by economic conditions of the member states. There is no such specific information in chapter 4 Delete for the technique called: "Use of low sulphur content fuels" the applicability starting: "The applicability may be limited ...". Add the sentence: "Gas hook up (p.ex. to the public grid) is relevant." As access to the gas net is really a matter of applicability while MS energy policy is known to be less relevant for fuel change than ELVs for SO2. There are too many gas fired plants in Europe to consider fuel change a matter of economic viability. In General we do not want a Bref to state Member state policy is an applicability issue.	Replace the text concerning the applicability of technique (iii) 'Use of low sulphur fuels' by the following: "The applicability may be limited by the constraints associated with the availability of low sulphur fuels, which may be impacted by the energy policy of the Member States."	
67	5	6	6			54	362	BAT 54: Values of table 5.44 only apply when the waste gas is treated separately from the furnace's waste gas	Change the title of Table 5.44: "BAT-AELs for dust and metals from downstream processes in the special glass sector, when treated separately"	Clarification because without this addition it would mean that the lower values would apply to furnace which treat their waste gases jointly
68	5	6	6			55	363	BAT 55: Value of table 5.45 only applies when the waste gas is treated separately from the furnace's waste gas	Change the title of Table 5.45: "BAT-AELs for HF from acid polishing in the special glass sector, when treated separately"	Clarification because without this addition it would mean that the lower values would apply to furnace which treat their waste gases jointly
69	5	7	2			57	364	BAT 57: the applicability of technique (f) is not limited by economic conditions of the member states. There is no such specific information in chapter 4 "(f) Fuel choice", applicability: Delete "by the constraints of the prevailing economic conditions and energy policy of member states". Add instead " "Gas hook up" (p.ex. to the public grid) access." As access to the gas net is really a matter of applicability while MS energy policy is known to be less relevant for fuel change than ELVs for SO2. There are too many gas fired plants in Europe to consider fuel change a matter of economic viability. In General we do not want a Bref to state Member state policy is an applicability issue.	Replace the text concerning the applicability of technique (i) (f) 'Fuel choice' by the following: "The applicability may be limited by the constraints associated with the availability of different types of fuel, which may be impacted by the energy policy of Member States."	
70	5	7				0	364	Re-insert all footnotes to the BAT AELs explaining the conversion factors used to derive specific mass emissions from concentrations	Footnotes to be reinserted	Correct reflection of the agreed BAT conclusions
71	5	7	3			59	366	BAT 59: there are only gas-fired, electric or oxyfuel-fired furnaces known in the glass wool industry	Specify in table 5.49 that not "all type of furnaces" are meant	Clarification
72	5	7	3			59	366	BAT 59: the applicability of technique ii is not limited by economic conditions of the member states. There is no such specific information in chapter 4 Delete for the technique called: "Use of low sulphur content fuels" the applicability starting: "The applicability may be limited ...". Add the sentence: "Gas hook up (p.ex. to the public grid) is relevant." As access to the gas net is really a matter of applicability while MS energy policy is known to be less relevant for fuel change than ELVs for SO2. There are too many gas fired plants in Europe to consider fuel change a matter of economic viability. In General we do not want a Bref to state Member state policy is an applicability issue.	Replace the text concerning the applicability of technique (iii) 'Use of low sulphur fuels' by the following: "The applicability may be limited by the constraints associated with the availability of low sulphur fuels, which may be impacted by the energy policy of the Member States."	
73	5	7	7			63	368	BAT 63: Values of table 5.53 only apply when the waste gas is treated separately from the furnace's waste gas	Change the title of Table 5.53: "BAT-AELs from downstream processes in the mineral wool sector, when treated separately"	Clarification because without this addition it would mean that the lower values would apply to furnace which treat their waste gases jointly
74	5	8	1			65	370	what are ASW/RCF fibres ? Give the definition	Add additional clarification in the footnote concerning the meaning of RCF (refractory ceramic fibre).	
75	5	8	1			65	370	BAT 65: Value of table 5.55 only applies when the waste gas is treated separately from the furnace's waste gas	Change the title of Table 5.55: "BAT-AELs from dusty downstream processes in the HTIW sector, when treated separately"	
76	5	8				0	370	Re-insert all footnotes to the BAT AELs explaining the conversion factors used to derive specific mass emissions from concentrations	Footnotes to be reinserted	Correct reflection of the agreed BAT conclusions
77						67	371	BAT 67: the applicability of technique ii is not limited by economic conditions of the member states. There is no such specific information in chapter 4 Delete for the technique called: "Use of low sulphur content fuels" the applicability starting: "The applicability may be limited ...". Add the sentence: "Gas hook up (p.ex. to the public grid) is relevant."	Replace the text concerning the applicability of technique (iii) 'Use of low sulphur fuels' by the following: "The applicability may be limited by the constraints associated with the availability of low sulphur fuels, which may be impacted by the energy policy of the Member States."	
78	5	8	6			70	372	BAT 70: Value of table 5.60 only applies when the waste gas is treated separately from the furnace's waste gas	Change the title of Table 5.60: "BAT-AELs for VOC from the lubricant burn-off oven in the HTIW sector, when treated separately"	Clarification because without this addition it would mean that the lower values would apply to furnace which treat their waste gases jointly

Annex A to the opinion of the IED article 13 forum on the content of the BREF for Glass Manufacture (consensual comments)

Comment No.	Chapter No.						Chapter title	BAT	Page # (PDF version)	Comment description	Proposed amendment	Rationale
	Section No.											
79	5	9					0	373	Re-insert all footnotes to the BAT AELs explaining the conversion factors used to derive specific mass emissions from concentrations	Footnotes to be reinserted	Correct reflection of the agreed BAT conclusions	
80	5	9	2				72	374	BAT 72: the applicability of technique (f) is not limited by economic conditions of the member states. There is no such specific information in chapter 4 Delete for the technique called: "Use of low sulphur content fuels" the applicability starting: "The applicability may be limited ...". Add the sentence: "Gas hook up (p.ex. to the public grid) is relevant."	Replace the text concerning the applicability of technique (i) (f) 'Fuel choice' by the following: "The applicability may be limited by the constraints associated with the availability of different types of fuel, which may be impacted by the energy policy of Member States."		
81	5	9	3				73	374	BAT 73: the applicability of technique iii is not limited by economic conditions of the member states. There is no such specific information in chapter 4 Delete for the technique called: "Use of low sulphur content fuels" the applicability starting: "The applicability may be limited ...". Add the sentence: "Gas hook up (p.ex. to the public grid) is relevant."	Replace the text concerning the applicability of technique (iii) 'Use of low sulphur fuels' by the following: "The applicability may be limited by the constraints associated with the availability of low sulphur fuels, which may be impacted by the energy policy of the Member States."		
82	5	10					0	377	Since the section with the description of the techniques only reflects parts of the information given in Chapter 4 on this topic, a sentence should be included at the beginning of this section to make clear that detailed information can be found in Chapter 4 of the BREF.	Include a sentence stating that the full descriptions of the techniques can only be found in the corresponding Chapter 4 of the BREF	Including this sentence helps to understand that it is not sufficient to only read Chapter 5 to understand the technique with all its aspects.	