The CFP Communication Program

C-01-01

Requirements for basic secondary data

Basic secondary data shall conform to all mandatory items listed below.
Though the recommended items are not used as judgment criteria for approval/disaproval, basic secondary data should conform to the recommended items.

	Items	Details	Supplementary remarks	Mandatory or Recommended
(1) Basic requirements for data				
1	* Creator	Data registrator (organization) and contact information shall be described.	"Data registrator (organization)" and "contact information" shall be described in the report, which describes "registration data" and "the creation method of the data" submitted by the data registrator for verification (hereinafter called "the report").	Mandatory
2	* The way of describing purpose of data collection and application of data	The data shall be available to be used for CFP quantification.	The report shall not include any descprition such as "this data cannot be used for CFP quantification".	Mandatory
3	* The way of naming a process and a flow	The name shall be described by using generic name.	The name of the data described in the report shall not be proper name (e.g., specific product name), but generic name.	Mandatory
4	* The way of setting functional unit (reference flow)	The functional unit shall be clear. It shall be set as input and ouput per funcational unit.	In the report, input/output per the funcational unit shall be confirmed, such as by using a list describing all item's names and quantities of input/output flows which were used for quantification of data (hereinafter called "the input/output flows"). (e.g.: The functional unit is clearly set such as "per kg of the product XX," and the input/output per the functional unit can be confirmed by using the input/output flows	Mandatory
5	* Representativeness	The input/output flows shall appropriately represent geographical coverage, time period, and technology coverage.	The meaning of "shall appropriately represent geographical coverage, time period, and technology coverage" shall be assumed the following, provided that any special remarks are described: the geographical coverage shall be the whole nation/region; the time period shall not deviate from the present time (the year 2010); and the technology coverage shall be technology which actually exists. When you intentionally specify geographical coverage, time period, and technology coverage for creating data, the basis shall be available to be confirmed in the report. In	Mandatory
6	* System boundary	The system boundary shall be provided.	The report shall include outline of the covered system boundary by chart or text.	Mandatory
7		The chart of processes should be provided.	When applicable process includes multiple unit operations (e.g., cutting, finishing, and cleaning, etc.), those main procedures and descriptions should be available to be	Recommended
8	* Types of impact assessment	The inputs/outputs of elementary flow should be described by using flows of each material before characterized.	In the report, numerical values of the elementary flow should be described, not by using CO_2e emissions, but by using each emissions of CO_2, CH_4, and N_2O, etc., separately.	Recommended
9	* Elementary flow to be covered under study	It shall cover GHGs listed in the IPCC's 2nd assessment report (refer to Annex 1).	The report shall include data or comment (incl. "unknown") for all GHGs described in the IPCC's 2nd assessment report. Especially for the GHGs other than CO_2, it shall be described that those all GHGs are excluded from the assessment or not, and that they are conducted cut-off or not.	Mandatory
10		It should cover other GHGs.	The report should clearly describe that the effects of GHGs newly added in the IPCC's 4th assessment report (e.g. CFC, etc) .	Recommended
11	* Handling of infrustructure and facilities	It shall describe whether any flows of infrustructure and facilitiy installation are included or not.	The report shall include descriptions related to flows of infrustructure and facility installation ("unknown" is available.) When they are included, it shall be available to be confirmed in the input/output table.	Mandatory
12	* Definitions and handling of direct department and indirect department	It shall describe whether the flows of company's activities and services (personnel, financial, public relations, management, research & development, and environmental departments, and business trip, etc.) are included or not.	The report shall include descriptions related to flows of company's activities and services (personnel, financial, public relations, management, research & development, and environmental departments, and business trip, etc). ("Unknown" is available.) When they are included, they shall be available to be confirmed in the input/output	Mandatory
13	* Cut-off	It shall describe handling of cut-off.	The report shall clearly stated the cut-off criteria.	Mandatory
14	* Modelling method	It shall adopt average value or representative value.	The report shall include descriptions available to be confirmed that "average value or representative value calculated by generic method is used for modelling.'	Mandatory
15	* Sensitivity check	Sensitivity check should be conducted for the elements which significantly contribute quantification results.	The report should include the descriptions available to be confirmed that "it was confirmed how much the elements whose value significantly vary (e.g., estimated value) will influence on quantification of emission factor."	Recommended
16	* Limitations	Limitations should be explained.	The report should include descriptions related to "considerations for using data". (e.g.: Please note that this data is average data during a year but significantly varies due to seasonal change.)	Recommended
17	* Disclosure	The information needed for verifying each item shall be available to be disclosed to reviewer.	The report shall include description that "we agree about disclosure of information to reviewer".	Mandatory
18		The information related to (1) and (2) should be disclosed to the public for free.	When the information related to "(1) Basic requirements for data" and "(2) Handling of upstream process, and treatment process of items emitted" are disclosed in a way available to the public (e.g., on the Internet, in a published literature, etc.) , the report should include descriptions related to applicable information.	Recommended
19	* Range	The range of applicable process shall be the range on which the data creator can have responsibility.	The report include descriptions of "the responsibility range of data registrator".	Mandatory
20		Public electricity shall be quantified, separating from applicable process.	When there is an input of public electricity, it shall be described as amount of electricity (kWh, etc.) and shall be available to be confirmed in the input/output flows.	Mandatory
21	* Input/output flow	The balance of the input/output amount shall be available to be confirmed.	The balance of the input/output amount shall be available to be confirmed by using the theinput/output flow list. For a flow whose partial input/output is not habitually described due to the difficulties of data collection (e.g., input of O_2 (oxygen), water evaporation, dissolution in waste water, etc.), it shall be described in the report.	Mandatory
22		The input/output flow which significantly contribute the results shall not be lacked.	In the input/output flows, it shall be available to be confirmed that any of such input/output flow is lacked (e.g., missing of main raw materials).	Mandatory
23		Not only the flows of raw materials, but also the flows of ancillary raw materials and of indirect inputs should be quantified.	For the flows of ancillary raw materials and of indirect inputs which are assumed to share about 10 or more % of the total inputs/outputs, the input/output of its mass and its energy quantity should be confirmed by using the input/output table. When 20% og the data of such flows cannot be collected, it is regarded as nonconformance, and its reason should be described in the comment column of verification report.	Recommended
24	* Data quality in general	It should be assessed by using the table for data quality (refer to Annex 2).	The report should describe the self-check results using the table for data quality and the appropriateness of its results.	Recommended
25	* Data collection method	Data collection method shall be described.	In the report, outline of data collection method shall be described concisely.	Mandatory
26		It should be quantified based on the data of actual operations.	In the report, it should be available to be confirmed that it is quantified by using actual results of annual operations. (No need to check the data of actual operations.)	Recommended
27	* Time-related information	The data collection period or the base year shall be	The report shall include descriptions related to the data collection period or the base	Mandatory
28		It should be based on the data collected after fiscal 2005.	In the report, it should be available to be confirmed that main data are based on relatively new data which were collected after fiscal 2005.	Recommended
29	* Geographical-related information	It shall describe the data collection area.	The report shall describe that the geographical coverage under study is "the whole nation/region". When you intentionally specify covered geographical area, however, its basis shall be available to be confirmed in the descriptions of the report.	Mandatory
30	* Accuracy	It should include descriptions related to accuracy.	The report should describe torelance of data. (e.g., standard deviation, profile of probality density distribution, etc.)	Recommended
31	* Completeness	It should include descriptions related to completeness.	The report should describe the scope of the study for completeness of input/output flows which should be collected. In addition, they should conform to actual inputs/outputs which were checked in No.22 and No.23.	Recommended
32	* Estimation method of lacking data	When input/output flows considered as important are unkonwn, they should be complemented by using a certain estimation method. In addition, the estimation method should be described.	For the contents to be confirmed in No.22, No.23, and No.31, when complementing the lacking data by using of a certain estimation, the estimation method should be described in the report and available to be confirmed. The appropriateness of the estimation should be available to be confirmed in No.22, No.23, and No.31.	Recommended
33	* Handling of carbon offsetting	It shall not include any effects of reduction by carbon offetting.	In the report, it shall be available to be confirmed that "any effects of reduction by carbon offsetting" is not included.	Mandatory
34	* Handling of green electricity	It shall not include any effects of reduction based on green electricity certificates.	In the report, it shall be available to be confirmed that "any effects of reduction based on green electricity certificates" is not included.	Mandatory
35	* Effect by carbon fixation in a product	The effect by carbon fixation in a product shall not be included in the assessment, regardless of its fixation period.	In the report, it shall be available to be confirmed that "the effect by carbon fixation in a product shall not be included in the assessment, regardless of its fiixation period".	Mandatory
36	* Handling of GHG arising from biomass	CO_2 arising from renewable biomass should be excluded from assessment.	In the report, it should be available to be confirmed that "CO_2 arising from renewable biomass should be excluded from the assessment".	Recommended
37	* Handling of allocation (a process which has multiple functions)	The balance of inputs/outputs amount for a process before conducting allocation shall be available to be confirmed.	When allocation is conducted, the balance of inputs/outputs amount of a process before conducting allocation shall be available to be confirmed. When it is difficult to obtain data before conducting allocation (e.g., data created from statistics), it shall be well-balanced input/output flow of the process data after conducting allocation, and the method of processing data shall be available to be confirmed in the report.	Mandatory
38		The following order of priority shall be used: avoiding of allocation (subdivision of a process) -> physical criteria -> installation of alternative system -> other criteria (social / econmical criteria).	In the report, it shall be available to be confirmed that "when conducting allocation, the order of priority on the left shall be used".	Mandatory
39		Allocation procedures shall be described.	When allocation is conducted, it shall be available to be confirmed in the report that it is conducted by using the method of No.38.	Mandatory
40	* Handling of land use (change)	When including land use (change) in the scope of study, it should conform to assessment the method prescribed by public organization such as by IPCC or a country, etc.	When including land use (change) in the scope of study, the report should describe that it should conform to the assessment method prescribed by public organization such as by IPCC or a country, etc.	Recommended
(2) Handling of upstream process, and treatment process of items emitted *2				
41	* Data source	Main secondary data should be consistent with common emission factor.	In the report, it should be available to be confirmed that secondary data of public electricity which is used is consistent with the data of public electricity from the basic database in the CFP Communication Program (Both data are not needed to be the same. However, it needs to confirm that smaller value is not to be used intentionally). Secondary data other than public electricity shall be excluded for the time being.	Recommended
42		The source or the quantification procedures shall be described.	In the report, the name of the database used, the order of priority in data usage, and the list of data souce shall be available to be confirmed.	Mandatory
43		The data other than common emission factor should have the quality which can conform to this verification criteria.	In the report, for main secondary data other than common emission factor, the information on the method for creating such data should be described in the report, and it should be clearly stated that such data conform to all mandatory items of this	Recommended
44	* Time-related assessment range	For a process which emits GHGs for a long time (e.g., landfill process, etc.), it should be taken into account that the emissions will continue eternally.	In the report, when there is a process which emits GHGs for a long time (e.g., landfill process, etc.), it should be clearly stated that the emissions which will continue eternally are taken into account in the report.	Recommended

*1: This verification criteria will be appropriately revised as needed.

*2: The items listed in (2) show the items to be verified only when it is provided the data generated by adding up its processes.

Conformance to recommended items: __ items

Table: 100-year GWP of GHGs listed in the IPCC 2nd assessment report

GHG			GWP
Carbon dioxide		CO_2	1
Methane		CH_4	21
Dinitrogen monoxide (nitrous oxide)		N_2O	310
Hydrofluorocarbon		HFC	-
	Trifluoromethane	HFC-23	11700
	Difluoromethane	HFC-32	650
	Fluoromethane	HFC-41	150
	1,1,1,2,2-pentafluoroethane	HFC-125	2800
	1,1,2,2-tetrafluoroethane	HFC-134	1000
	1,1,1,2-tetrafluoroethane	HFC-134a	1300
	1,1,2-trifluoroethane	HFC-143	300
	1,1,1-trifluoroethane	HFC-143a	3800
	1,1-difluoroethane	HFC-152a	140
	1,1,1,2,3,3,3-heptafluoropropane	HFC-227ea	2900
	1,1,1,3,3,3-hexafluoropropane	HFC-236fa	6300
	1,1,2,2,3-pentafluoropropane	HFC-245ca	560
	1,1,1,2,3,4,4,5,5,5,-decafluoropentane	HFC-43-10mee	1300
Perfluorocarbon		PFC	-
	Perfluoromethane	PFC-14	6500
	Perfluoroethane	PFC-116	9200
	Perfluoropropane	PFC-218	7000
	Perfluorobutane	PFC-31-10	7000
	Perfluorocyclobutane	PFC-c318	8700
	Perfluoropentane	PFC-41-12	7500
	Perfluorohexane	PFC-51-14	7400
Sulphur hexafluoride		SF_6	23900

Annex 2

Table for data quality

Score	1	2	3	4	5
Assessment of reliability	**Data generated based on actual measurement.**	**Data generated by modelling based on phiscal and chemical theories. Or, data additionally considering inputs of ancillary raw materials by using statistics, etc.**	**Data generated by modelling based on assumptions.**	**Data generated by assumption (e.g.: assumption by expert of the industry); Data is collected from theoretical information (stoichiometry, enthalpy, etc.)**	**Estimated data.**
	- Data obtained by actual measurement. - Data generated by adequately collecting data only from statistics	- Data obtained by simulating processes. - Data complemented by the data from statistics (verification is conducted). - Data by interindustry analysis.	- Data generated based on chemical reaction or patent information. Yeild ratio and loss of energy, etc. are set based on assumptions.	- Data generated only from the information based on theoretical calculation, becase yeild ratio and loss of energy, etc were set inadequately.	- Data estimated from similar process, and complemented at a minimum level. - For example, data generated from inputs of main raw materials and energy related to production, on a basis of design value, listed in manual.
Assessment of representativeness	**Data representaing almost all of the data on production volumes of target product.**	**Data representing 50% or more production volumes of target product.**	**Data representing about several dozen percent (<50%). Or, data representing 50% or more production volumes, but without leveling of seasonal variation, etc.**	**Representative data of one site. Or, data for a short period, regardless of number of sites.**	**Unknown data where it represents. Or, data for a short period from a few sites.**
	- Data are collected from almost 100% of the production volumes of the target product.	- Data are collected from 50% or more of the production volumes of target product.	- Data generated from environmental reports of several major companies. - Average data of multiple sites, in the case that individual data on target product are collected from a limited producers.	- Data of multiple sites, in the case that individual data on target product are collected from limited producers. - Data which is not leveled, because its study period is short and it is hard to regarded as annual average.	
Assessment of time aspects	**Data which is newer than the base year 2010, or data within 3 years**	**Data within 6 years from the base year 2010**	**Data within 10 years from the base year 2010.**	**Data within 15 years from the base year 2010.**	**Data passed 15 or more years from the base year 2010, or unkown data when it is generated.**
	- Data of the year 2008 to 2010. * For the average of multiple years, assessment is conducted by the final base year.	- Data of the year 2005 to 2007.	- Data of the year 2001 to 2004.	- Data of the year 1996 to 2000.	- Data before the year 1995.
Assessment of geographical aspects	**Data of covered geographical area**	**Averaged data of a geographical area larger than the covered geograhpical area (the whole covered geographical area is included in it).**	**Data within a range narrower than the covered geographical area.**		**Data whose covered range is unknown. Or, data of different geographical area (not covered).**
	- Data generated from statistics of the covered geographical area. - Data generated by defining its range as the whole of the covered geographical area.	- Data covering all the world (world average), and data of Asia.	- Many data individually generated.		
Assessment of technology aspects	**Data generated from the data on all production technologies of target product**		**Data generated from the data on major production technologies of target product, and a part of production technologies are not taken into account.**	**Data generated from the data on a part of production technologies of target product, and major production technologies are not taken into account. Or, technology is even the same tachnology, but its level is considered as laboratory level.**	**Production technologies of target product are different technologies and laboratory level.**
	- Data which has marketablity (mass-production, production-model) and general versability. - Data which already has marketablity and general versability, and data from factory, etc., which has been commercially operated.		- Data which has marketablity and general versability, but a part of the data was generated by using alternative similar technology (e.g., substitution of processing technology).	- Data which has not marketablity and general versability.	

Items listed in upper fields: Judgment criteria on data quality from Pedigree matri›
Items listed in bottom fields: Examples for making judgment criteria more clearly