

PFU Group Green Procurement Direction

April 1 , 2022 (Edition 7.1)

PFU LIMITED

In conformity with the Fujitsu Group Green Procurement Direction (Edition 7.3)

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1. Introduction to the PFU Group Green Procurement Direction

1.1. Purpose

PFU Group is promoting environmental protection activities in all of our business categories and purchasing lower-environmental-load products from all over the world.

This Green Procurement Direction describes fundamental philosophy of PFU Group's green procurement activities and specifies what we would like suppliers to fulfill.

1.2. Scope

This Direction has been established as a common direction of the entire PFU Group companies, and applies to procured products or goods that are applied to products sold by PFU Group to customers as well as to their suppliers themselves.

In this Direction, "procured products or goods" shall mean material, components, units, accessories, Chemicals(parts of products), packaging materials(Items used in products), OEM/ODM products, equipment, software and services, etc., except for jig, Chemicals(not part of products), office automation equipment, stationery, or business consumables, etc., which are internally used in PFU Group.

PFU Group Companies in this Direction shall mean subsidiaries or affiliates of PFU Limited, which are shown on page 14.

In any of PFU Group companies presents its own direction because of its customers' specific requirements or a particular business style, suppliers are also requested to primarily observe such its own direction.

2. Green procurement requirements to be fulfilled by suppliers

PFU Group requires its suppliers to observe mainly the following requirements shown in Table 1.

PFU Group promotes procurement from suppliers who observe these requirements.

Table 1 Green procurement requirements to be fulfilled by suppliers

	Requirements	Material/parts suppliers*	Non-Material/parts suppliers	Section
(1)	Establishment of EMS (Environmental Management System)	Required	Required	2.1
(2)	Compliance with regulations for PFU Group specified chemical substances	Required	N/A	2.2
(3)	Establishment of CMS (Chemical substances Management System)	Required	N/A	2.3
(4)	Approaches to reducing CO ₂ emissions	Required	Required	2.4
(5)	Approaches to biodiversity conservation	Required	Required	2.5
(6)	Approaches to water resources conservation	Required	Required	2.6

*Material/parts suppliers: suppliers whose deliverables are equipped to PFU Group's products or

suppliers of OEM/ODM products

2.1. Establishment of EMS (Environmental Management System)

PFU group requires suppliers to establish an EMS. In principle, suppliers are requested to have an EMS certified by a third-party organization such as ISO14001. If you are a supplier which doesn't have any EMS certified by third-party organization, we will request you to establish any EMS which has PDCA cycle.

2.2. Compliance with regulations on PFU Group specified chemical substances

PFU Group has defined its own regulations on chemical substances related to Deliverables which are equipped to PFU Group's products, or OEM/ODM products and packaging materials (hereinafter collectively called "Deliverables" in this Direction), and requested its suppliers to comply with the regulations.

1) Our concepts for chemical substances to be controlled:

With respect to the chemical substances, PFU Group has defined herein substances by referring to those related to international laws such as EU's RoHS Directive or REACH Regulation, and the Class I substances specified by Japanese Chemical Substances Control Law, etc. In detail, please refer to the following. As for "Disclosure of information on deliverables", please refer to the Section 4.1.

2) PFU Group specified Chemical substances:

Deliverables shall comply with the following regulations in the articles a). through e).

However, if there are particular designations or directions in a purchase specification, drawing or other similar kind of document that includes, for example, designation regarding other chemical substances, other "standards of ban", or other "exempted applications", such designations or directions will prevail.

"Packaging materials" herein also include the cases that they are packed by suppliers (or by a carrier that the suppliers entrust packaging) AND supplied directly to customers of PFU Group without being unpacked by PFU Group. In addition, also refer to the section 3.5 (Environmental considerations for packaging materials), which includes a few requests regarding environmental assessment.

[Note]

- As for fundamental ideas regarding control of PFU Group specified chemical substances, also refer to "Guideline regarding non-containment management on Fujitsu Group specified chemical substances" (<https://www.fujitsu.com/global/about/procurement/green/>)
- The latest version of "Standard for the Control of Chemical Substances in Products (A1PA00500-0012)" is available at the following URL:
<https://www.pfu.fujitsu.com/eco/green.html#en>

a) Banned Substances

- In principle, Deliverables must not contain chemical substances defined in Table 1 of “Standard for the Control of Chemical Substances in Products (A1PA00500-0012)”.
- In details of the target substances, “Standards of Ban” and calculation methods of concentration, etc., refer to Table 1 of “the Standard for the Control of Chemical Substances in Products (A1PA00500-0012)” and its notation.
- Notwithstanding above, if exempted application(s) in “Standard for the Control of Chemical Substances in Products (A1PA00500-0012)” is(are) applicable to the Deliverables, such containment will be exempted from the restriction of the ban.

b) Reportable Substances

- Reportable Substance(s) shall be taken hold on the presence or absence in Deliverables, and if Deliverables meet “Conditions of Deliverables to be reportable” defined in Table 2 of “Standard for the Control of Chemical Substances in Products (A1PA00500-0012)”, its total mass, purpose of use, and application area, etc., shall be reported to PFU Group.
- In details of target substances, “Conditions of Deliverables to be reportable”, contents to be reported or managed, and calculation methods of concentration, etc., refer to Table 2 of “Standard for the Control of Chemical Substances in Products (A1PA00500-0012)” and its notation.
- Substance may be added to Reportable Substances when the obligation of information transmission becomes necessary according to international regulations such as REACH Regulation. In such cases, PFU Group may ask suppliers to provide information before revising this Direction.

c) Control Substances

- In the case that Deliverables meet "Conditions of Deliverables to be controlled" defined in Table 3 of “Standard for the Control of Chemical Substances in Products (A1PA00500-0012)”, with respect to "Control Substance", its total mass, purpose of use, and application area, etc., shall be managed and recorded.
- In details of target substances, "Conditions of Deliverables to be controlled" and calculation methods of concentration, etc., refer to Table 3 of “Standard for the Control of Chemical Substances in Products (A1PA00500-0012)” and its notation.

d) Prohibited Substances in manufacturing process

- During manufacture of Deliverables, it is prohibited to use PFU Group specified “Prohibited Substances” that are defined as “Ozone Depleting Substances” in Table 4 of “Standard for the Control of Chemical Substances in Products (A1PA00500-0012)”, except for HCFCs. Meanwhile, if you use HCFCs, please work to reduce the emission and/or the use.
- In this regard, however, the use of Prohibited Substances is exempted from the restriction if they are used in indirect manufacturing process such as analytical determination and product development, or in a freezing/an air-conditioning machine.

e) Other restricted substances in delivery destination countries or areas

- Other than the substances defined in a) through d) above, Deliverables shall at all time comply with laws and restrictions applied in delivery destination countries or areas, for example, where Deliverables are delivered to overseas sites of PFU Group.

For your reference, please refer to the following principal laws and restrictions in Japan and overseas that are related to chemical substances in products. However, since it is hard to provide whole lists here, please confirm by yourselves.

Japan:

- Chemical Substances Control Law (CSCL)
- Industrial Safety and Health Law
- Law for Promotion of Effective Utilization of Resources (3R Law): Requirements for information disclosure of restricted chemical substances
- Law Concerning the Protection of the Ozone Layer through Control of Specified Substances and Others Measures (Ozone Layer Law)

Overseas:

- EU member nations: RoHS Directive, REACH Regulation (Restriction)
- Swiss: ChemRRV
- Norway: Norwegian Product Regulations
- USA: TSCA (Toxic Substances Control Act)
- China: China RoHS: Administrative Measures for the Restriction of Hazardous Substances in Electrical and Electronic Equipment

2.3. Establishment of CMS (Chemical substances Management System)

PFU Group has requested establishment of CMS of material/parts suppliers. As typified by RoHS directive, REACH regulation of European Union, so-called “China RoHS” and Japanese “J-Moss”, it has been becoming necessary in every supply chain to severely control certain chemical substances in products. Responding to this, each company in such supply chains, as their social responsibilities, needs to implement proper and effective management of chemical substances in their products.

Also, industries are promoting standardization of Chemical substances management methods in products to reduce corporate’s burden, through the use of the “Chemical substances management guideline” (*1) published by Joint Article Management Promotion-consortium (JAMP) and the “JIS Z 7201” (*2) published by Japanese Industrial Standards Committee (JISC).

PFU Group has created “Supplier Inspection Check Sheet” in accordance with the above documents. It is designed to clarify action items that PFU Group would like its suppliers to take.

The principal elements of CMS that PFU Group would like its suppliers to manage are shown in Table 2.

After suppliers’ self-checking, furthermore, PFU Group visits suppliers and implement audits regarding CMS on the basis of their Supplier Inspection Check Sheets to check suppliers’ situations of establishment and operation of CMS. According to the audit result, PFU Group may request the suppliers to improve unsatisfactory performance in their CMS operation and also provide some advice if necessary. However, if no improvement comes out, PFU Group might reconsider business relationship to such suppliers.

In detail about CMS establishment and other related processes, PFU Group will explain respectively to applicable suppliers.

*1: “Chemical substances management guideline” can be downloaded from the JAMP’s website.

(<https://chemsherpa.net/english>)

*2: JIS Z 7201, “Management of chemical substances in products-Principles and guidelines”

Issued on August 20, 2012 can be browsed on the JISC’s website.

(<https://www.jisc.go.jp/eng/index.html>)

Table 2 Management items in CMS

No.	Management items	Outline of the required actions
1	Policy	Clarifying CMS policies by corporate or business representative
2	Definition of Management Criteria	Clarifying management procedures and criteria for requirements from laws, industry standards or customers
3	Definition of Scope of Management	Clarifying products, processes, constructional elements and chemical substances to be managed
4	Establishment of Objectives & Planning for Implemented Process	Setting objectives and reviewing implemented process
5	Definition of Organizational System, Responsibilities and Authority	Clarifying responsibilities and roles in each division related to the management
6	Design and Development	Taking into account compliance with the defined requirements at design and development stage.
7	Acquisition and Verification of Information of Chemical Substances in Products	Constructing information acquisition scheme, and acquiring information of chemical substance contained in delivered items.
8	Purchase Management	Conveying requirements to suppliers.
9	Acceptance Verification	Implementing conformity check of delivered items with one's defined criteria when receiving delivered items.
10	Process Management	Clarifying processes in which composition of chemical substances vary and controlling properly. Also implementing distinction control and prevention of contamination.
11	Shipping Verification	Implementing conformity check of shipping products with one's defined criteria or standards.
12	Traceability	Constructing traceability scheme of products and delivered items.
13	Change Control	Clarifying procedures in case that composition of chemical substances is likely to be influenced, such as changes of design, process, supplier, etc.,
14	Non-conformity Response	Clarifying procedures when unconfirmable products come out
15	Training	Clarifying education contents
16	Management of Documentation and Records	Implementing documentation of management procedures or instructions, and controlling appropriately.
17	Communication (Provision of Information)	Constructing information sharing system.
18	Performance (State of Implementation) Evaluation and Improvement	Evaluating CMS implementation status, and improving performance.
19	Management Review (Correction by Management)	Reviewing and correcting problems by top management

Management items and required actions are subject to change, if necessary.

2.4. Approaches to limiting or reducing CO₂ emissions

PFU Group requests suppliers to make efforts to reducing CO₂ emissions.

Firstly, supplier clarify its intention to address reducing CO₂ emissions. Secondly, supplier starts actual activities on it with numerical target or policy. Thirdly, it would be best if supplier conducts the activities in cooperation with outside organization or its upstream suppliers.

*Note: In this Direction, the term "CO₂" means general greenhouse gases including N₂O, CH₄, SF₆, HFC, PFC, etc.

<Stages concerning environmental conservation activities>

PFU group defined a criterion of measuring environmental conservation activities situation. Below figure represents the environmental conservation activities situation expanding and improving gradually.

[Stage 1: Activity announcement]

It is a stage where companies understand the meaning of environmental conservation activity and express their will to make efforts as a corporation.

[Stage 2: Activity implementation (including Stage 1)]

It is a stage where companies are conducting substantive activities internally.

This stage requires that companies are conducting any activities with either numerical target, policy or plan. It would be ideal if numerical target could be set because the activity status can be measured easily and the PDCA cycle can be followed smoothly. If it is difficult to set the numerical target, please take into account promoting activities with policies or plans based on your long-term direction of the activities.

[Stage 3: Activity expansion (including Stage 2)]

It is a stage where companies are expanding their activities from the internal to the external level.

The extended scope of activities is carried out in Stage 3. This stage includes not only the internal activities but also the process of encouraging the upper stream supply chain and collaborative review tasks with external organizations.

Encouraging the upper stream supply chain to take the approach will allow you to reinforce the activities in the entire supply chain.

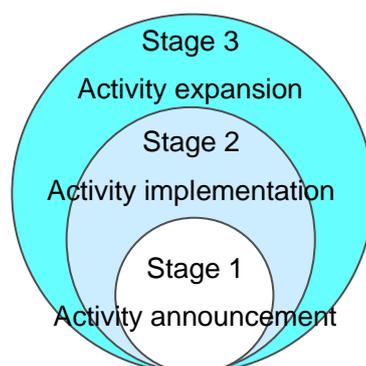


Figure : Stages of environmental conservation activities situation

“Guideline for activities for reducing CO₂ emissions” is downloadable from the below link:

<https://www.fujitsu.com/global/about/procurement/green/>

2.5. Approaches to biodiversity conservation

PFU Group requests suppliers to make efforts to biodiversity conservation.

Firstly, suppliers are required to understand various relationships between biodiversity and themselves and to start actions for it within their possibilities. It will be ideal if this activity also will be improved same as the reducing CO₂ emissions activities above.

2.6. Approaches to water resources conservation

Rapidly increasing world's population and water pollution causes increasing water demand and water shortage. Companies are requested to take measures for these problems.

PFU group requests our suppliers to understand the water risk related to your company, and to tackle the activities for water resource conservation, such as preventing water pollution and reducing water usage.

Moreover, if possible, we would like you to make approaches to your upper suppliers so that you can expand your activities to the outside. The examples of activities are as follows:

- Reduction of usage of water (Prevention of leaving water running, Water-saving of toilet, Cyclic use of industrial water/clean water, use of rainwater)
- Prevention of water pollution (Purification of factory effluent, Regular water quality inspection)
- Cleanup activities of rivers and lakes
- Headwater forest conservation activities (Recharge activities of water resources)

“Water risk assessment for companies” is downloadable from the below link:

<https://www.fujitsu.com/global/about/procurement/green/>

3. Requests for implementation of environmental assessment of products

Suppliers are requested to comply with laws or regulations applied to Deliverables. Moreover, as far as you can, please do the following environmental assessments of Deliverables.

However, if there are particular designations or directions in a purchase specification, drawing or other similar kind of document, such designations or directions will prevail.

3.1. Marking deliverables that use a small secondary battery

Deliverables that use a small secondary battery shall indicate a recycle or other legal mark in accordance with the Law for Promotion of Effective Utilization of Resources.

3.2. Energy saving

The operating and standby power consumption levels of deliverables shall be as low as possible and shall fulfill the following requirements:

- 1) Use of power saving function

A deliverable that can have a power saving function shall be able to automatically reduce the power consumption of components other than the main power supply and/or separate a part of the system by means of an operator operation or schedule function.

2) Compliance with the Law concerning the Rational Use of Energy

If a deliverable is specific equipment designated by the law, the following requirements shall be fulfilled.

- The energy consumption efficiency must be indicated based on the law.
- Consideration shall be paid to the target of energy consumption efficiency specified by the law and efforts shall be made to achieve the target.

3) Compliance with the International Energy Star Program

When a deliverable is subject to the International Energy Star Program, the power consumption standard specified by the program shall be fulfilled.

3.3. Consideration on recycling

Considering ease of recycling, deliverables shall fulfill the following requirements:

1) Unification of plastic materials

The plastic materials used for deliverables shall be unified as far as possible.

2) Use of plastic materials that can be easily recycled

The use of thermosetting plastics, which are difficult to recycle, shall be avoided and general-purpose plastics, which are easy to recycle, shall be used, as far as possible.

3) Suppression of use of polyvinyl chloride

Use of polyvinyl chloride on deliverables shall be suppressed as much as possible, except for cable coverings and electronic component insulators (such as heat-shrink sheets), in order to prevent dioxin production when the material is improperly disposed of.

4) Painting on plastics

Painting and plating on plastic material surfaces of deliverables shall be avoided as far as possible because they make it difficult to recycle the material.

5) Material identification marking

Delivered plastic components with a mass of 25 grams or more and a flat surface area of 200 mm² or more shall be marked for material identification based on the pertinent JIS or ISO standard.

6) Materials of documents attached to deliverables

Manuals and documents attached to deliverables shall fulfill the following requirements:

- Recycled paper shall be used for all document pages.

Or, eco-friendly virgin pulp, such as FSC certified papers, is used.

- Covers of documents shall be free from plastic coatings, which can be an obstacle for recycling.

3.4. Easy treatment and disposal

Considering easy treatment and disposal after their use, deliverables shall fulfill the following requirements:

- Consideration for ease of separation and disassembly and reduction of composite parts
It is necessary that deliverables can be divided and disassembled into identical material units with hands and general tools (such as Phillips screwdrivers, nutdrivers, wrenches, hexagon wrenches, tweezers, nippers, pliers and/or hammers), except when use of special screws is mandatory to prevent modifications or when disassembly should be made difficult to prevent fires or ensure safety human body safety or for other reasons.

3.5. Environmental considerations for packaging materials

Suppliers are requested as much as possible to use packaging materials of deliverables that fulfill the following requirements:

(A) This article A shall apply to packaging materials that are supplied directly to customers of PFU Group without being unpacked by PFU Group. However, it does not apply to the case of reselling general commercial products.

1) Materials of Packaging materials

Packaging materials shall fulfill the following requirements:

- Any corrugated board shall contain used paper as its content at 70% or more.
- Paper materials shall be free of plastic coating, bonding of art paper or other materials. Non-petroleum solvent ink or vegetable oil ink shall be used as much as possible for printing on package.
- Polyvinyl chloride shall not be used, except when appropriate alternate materials are unavailable.
- Protective bags shall be made of paper or polyethylene, polypropylene or other plastic materials that can be easily recycled, except for special-purpose bags.
- Paper bags shall be free from plastic coatings or clear plastic sheets attached at openings.

2) Marking on packaging materials

Packaging materials shall fulfill the following requirement and be marked for material identification.

- Packaging materials by the Containers and Packaging Recycling Law shall be marked for material identification.

(B) This article B shall apply to packaging materials that are unpacked by PFU Group, which will be discarded or sold after delivery to PFU Group.

1) General requirements

- Suppliers are requested as much as possible to reduce heavy metals containing Lead/Lead compounds, Mercury/Mercury compounds, Cadmium/Cadmium compounds Hexavalent Chromium/Hexavalent Chromium compounds and others.
- Suppliers are requested as much as possible to promote recycle and reuse.
- Suppliers are requested not to use Polyvinyl chloride, except when appropriate alternate materials are unavailable.
- Suppliers are requested as much as possible not to use materials difficult to recycle for packaging materials such as urethane sponge.

2) Loading pallet

- Suppliers are requested as much as possible to use a loading pallet having a structure available to use repeatedly.
- Suppliers are requested as much as possible to use a loading pallet made of materials that can be recycled.
- Suppliers are requested as much as possible to reduce number of windings of stretching film.
- Suppliers are requested as much as possible not to use PP-band.

3) Packing boxes

- Suppliers are requested as much as possible to use corrugated board that contains higher content ratio of used paper.
- Suppliers are requested as much as possible to let packing boxes not to be mixed or attached by materials that interfere in recycle.

4) Inner packaging materials: buffering materials, trays, tapes, partition board

- Suppliers are requested as much as possible to make simple packaging.
- Suppliers are requested as much as possible not to bond different types of materials.
- Suppliers are requested as much as possible to reduce adhesive tapes.
- Suppliers are requested as much as possible to use common plastic materials such as PP, PE or PS for plastic packaging materials unless it's used for special purpose.
- Suppliers are requested as much as possible to display material of plastic packaging materials based on JIS or ISO standards.
-

5) Methods of filling

- Suppliers are requested as much as possible to fill in a box by every unit specified in case the site specifies number of items in a box.
- Suppliers are requested as much as possible to place an item in the packing box with becoming as much bulk ratio as possible.

4. Information disclosure

Suppliers have to provide following information using the specified format by specified date when requested by a PFU Group company.

4.1. Disclosure of information on deliverables

- Information of material used in deliverables, such as types of constituent materials and mass and/or concentration of each chemical substance

Note: Suppliers are required to provide information by several formats, such as JAMP information transmission scheme (chemSHERPA), PFU Group original format, or a format specified by PFU Group's customer.

- Information of non-containment of specified chemical substances

Note: Suppliers are required to provide a Non-use certificate, Non-containment certificate, or Warranty of compliance with PFU group requirement for chemical substance Form.

- Analysis data of deliverables

Note: Analysis methods for the evaluation and management of products to PFU Group confirm to IEC62321.

- OEM product assessment results if the PFU Group company has requested this information in accordance with the PFU-specified regulations on environmental assessment of products.

- Risks in terms of quality, performance and environment involved in changing production conditions of time-proven materials used in deliverables (4M change)

4.2. Disclosure of information on suppliers

- Status of environmental protection activities

Note: Suppliers are required to provide a PFU Group Environmental Activity Survey Form.

Attachment 1 List of PFU Group Companies

No	Company name
01	PFU LIMITED
02	PFU IT Service Limited
03	PFU Quality Service Limited
04	PFU Techno Wise Limited
05	PFU Life Agency Limited

PFU Group members may vary in the future.

[Revision record]

October,2004 (Edition 2.1):

The FUJITSU group green procurement direction (Edition 2.1) conformity

November,2004 (Edition 3.0):

The FUJITSU group green procurement direction (Edition 3.0) conformity

(Revisions to maximum concentration values for impurities and residues, and others)

July,2007 (Edition 4.0):

The FUJITSU group green procurement direction (Edition 4.0) conformity

(Changed specified chemical substances, and others)

July,2008 (Edition 4.1):

The FUJITSU group green procurement direction (Edition 4.1) conformity

Added PFOS to specified chemical substances.

Deleted DecaBDE as the exempted application for PBDE.

October,2009 (Edition 4.2):

The FUJITSU group green procurement direction (Edition 4.2) conformity

Revised specified chemical substances

e.g. added a new category, "Reportable Substances"

Deleted three exempted applications, etc.

January,2010 (Edition 4.3):

The FUJITSU group green procurement direction (Edition 4.3) conformity

e.g. added 14 substances to Reportable Substances.

May,2010 (Edition 4.4):

Omitted Attachment 2. Instead added the title of the Standard as a reference for specified substances.

May,2010 (Edition 5.0):

Added approaches of limiting or reducing CO₂ emissions and biodiversity preservation

Moved the details of Fujitsu Group specified chemical substances by creating Fujitsu Group Specified Chemical Substances List

June 3, 2014(Edition 6.0)

Re-examination of EMS levels,

Re-examination of Stages of limiting or reducing CO₂ emissions, etc.

January,2022 (Edition 7.0):

Deleted Cause 1, 2

Revised in Clause 2, 3,4

Changed List of PFU Group companies

April,2022 (Edition 7.1):

Revised in Clause 1.2, 3.5

Changed List of PFU Group companies