

# Fujitsu Group's Green Purchasing Activities

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The Fujitsu Group recognizes that environmental protection is one of its crucial management priorities, and systematically and consecutively conducts environmental activities throughout its entire business domain. Similarly in material procurement, the Fujitsu Group is aiming to reduce environmental loads in the upstream areas of its value chain through its business partners by promoting green purchasing activities. Since these activities were started in 2001, the Fujitsu Group has been considering both regulatory compliance of supplies and business partners' promotion of environmental activities, both of which are important. Therefore, the Fujitsu Group is working to promote the establishment of the Environmental Management System (EMS) at business partners, and after that, eliminating restricted chemical substances completely, responding to trends of legal restrictions and establishment of the Chemical substances Management System (CMS) related to them. Moreover, reducing CO<sub>2</sub> emissions, preserving biodiversity, and conserving water resources have been added as themes of its activities one after another, considering the trends of international environmental issues. Furthermore, the Fujitsu Group not only requires these activities to be conducted, but also supports business partners in various ways and considers that promoting activities in cooperation with business partners is important. This paper introduces the main activities of the Fujitsu Group's green purchasing.

## 1. Introduction

Today, it is impossible for enterprises to avoid addressing environmental issues when they conduct business. The Fujitsu Group has been implementing green purchasing since 2001 as a response to environmental issues in the field of procurement. The activity includes procuring products that cause less environmental impact and comply with the regulations on chemical substances of the respective countries, and promoting environmental activities with our business partners. In this way, we work on collaborating with our business partners in addition to controlling the environmental risks of our own products. The requirements for green purchasing are described in "Fujitsu Group Green Procurement Direction," a guideline that we ask our business partners to adhere to.<sup>1), 2)</sup>

For the green purchasing activities, this paper presents "response to regulations on chemical substances contained," "promotion of the establishment of Chemical substances Management System (CMS)" and

"promotion of environmental activities with business partners."

## 2. Response to regulations on chemical substances contained

Since 2000, activities for reducing risks arising from chemical substances have been carried out globally. The Fujitsu Group has strengthened its management of the chemical substances contained in the upstream areas of its value chain in order to comply with regulations on chemical substances in Japan and overseas, which include the EU RoHS Directive<sup>note 1)</sup> and J-Moss of Japan<sup>note 2)</sup> enforced in 2006 and the REACH

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note 1) EU Directives on Restriction of the use of certain Hazardous Substances in electrical and electronic equipment. Enforced in July 2006.

note 2) JIS standard on indication of chemical substances included in electrical and electronic equipment. Enforced in July 2006.

regulations<sup>note 3)</sup> enforced in 2007. Specifically, we apply four conditions to our business partners:

1) Requirement for compliance of chemical substances contained

We require them to comply with regulations relating to chemical substances contained in purchased materials/parts.

2) Submission of warranties of compliance

We ask them to submit warranties of non-inclusion of six substances banned by the RoHS Directive.

3) Surveys on chemical substances contained

We request that they submit information about chemical substances contained in purchased materials/parts.

4) Audit of business partners

We conduct an audit regarding their establishment of the CMS.

We have been implementing the activities of 1), 2) and 3) since 2003 and 4) since 2006 (see the following section for details).

For our surveys on the chemical substances contained in products, we used the format provided by the Japan Green Procurement Survey Standardization Initiative (JGPSSI) until May 2011. In June 2011 we started using the Article Information Sheet (AIS)<sup>note 4)</sup> and Material Safety Data Sheet plus (MSDSplus)<sup>note 5)</sup> formulated by the Joint Article Management Promotion-consortium (JAMP) because it allows us to more promptly comply with the chemical substance regulations of the EU.

Ahead of the surveys based on the AIS, we held seminars on creating AIS sheets for 73 processing-related business partners in Japan in May 2011 and for 17 business partners in a Chinese-speaking region in June to help them learn how to create AIS sheets (**Figure 1**). These seminars included computer-based exercises to offer the participants hands-on experience of preparing AIS sheets.

Surveys on chemical substances are conducted

note 3) EU Parliament and Council Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals. Enforced in June 2007.

note 4) Information exchange sheet for transferring information about chemical substances contained in molded articles.

note 5) Information exchange sheet for transferring information about chemical substances contained in chemicals and preparations.



**Figure 1**  
Seminar on creation of AIS for business partners.

when a product is designed, a design is altered and a business partner is changed. "FUJITSU manufacturing industry solution ProcureMART," which provides a set of Internet-based services for procuring production materials, is used to connect between business partners and Fujitsu so that purchasing operations and chemical substance surveys can be given one interface. To manage the chemical substance information submitted from our business partners, we use the "PLEMIA/ECODUCE," product environment information management solution, to share the information within the Fujitsu Group.

The Fujitsu Group intends to always keep up with the trends of global and Japanese regulations and work on ensuring compliance with those regulations.

### 3. Promotion of establishment of CMS

As described in the previous section, we are striving to ensure that supplies adhere to regulations by requiring that they comply with regulations and acquiring warranties and inclusion information of regulated chemical substances. Still, we sometimes find that material/parts include a chemical substance in excess of the regulation value. There are many possible reasons for this, but it is often caused by simple errors such as failures to properly follow the operation procedures, faulty identification within a process and inadequate shipping management (**Table 1**).

Accordingly, in order to ensure that supplies comply with regulations, simply collecting data from business partners is not enough. Rather, it is necessary

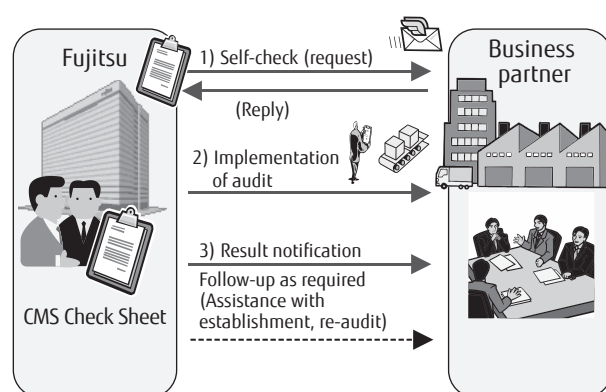
**Table 1**  
Cases of violation by inclusion of regulated chemical substances reported in industry.

Items	Substances	Causes
Cable covering	Pb	Old goods in stock that were in non-compliance with regulations were <u>used by mistake</u>
Modular connector	Pb	Leaded solders were <u>inputted by mistake</u> into a tank for unleaded solders
Self-tapping screw	Cr <sup>6+</sup>	Hexavalent chromate products and trivalent chromate products were mixed together while they were used in the same production line
Module case	Pb	Soldering iron was shared <u>between different processes using</u> unleaded solders and leaded solders
Magnetic circuit component	Cd	Plating line was <u>not changed over correctly</u> (non-RoHS plating liquid)
Cable	Pb	Remaining samples (in non-compliance with regulations) were <u>shipped by mistake</u> to fill a small order

to make sure that an appropriate management system encompassing all processes relating to supplies, including design, purchasing, manufacturing and shipping, is established by the respective business partner.

In the Fujitsu Group, the system described above is referred to as the CMS. Since the beginning of 2006, we have been conducting CMS audits, in which Fujitsu's auditors make visits in person to business partners that deliver materials and parts to be used for Fujitsu brand products, to make sure that they are carrying out appropriate process and information management. For business partners that have been found to have no CMS in place by audits, the auditors provide follow-up assistance until the CMS has been established (**Figure 2**).

During the initial phase in 2006, when we were the first company in the industry to start these activities, some business partners complained that they could not understand why they had to be visited at their manufacturing sites for confirmation after they had submitted warranties. After a few years, however, the industry gradually became aware of the importance of establishing the CMS. Business partners began to approve of the Fujitsu Group's activities. Most of our business partners have now undergone the audit. We shifted our focus of activities to "periodic audits," which are intended to periodically confirm that the CMS is appropriately continued in their sites.



**Figure 2**  
CMS audit implementation process.

While the items to be confirmed in the audit are based on the "Guidelines for the management of chemical substances in products" (published by the Joint Article Management Promotion-consortium [JAMP]), which is the industrial standard, the Fujitsu Group uses its own "CMS Check Sheet." This sheet has been created by specifying requirements so that it is easy to understand based on the Group's eight years of experience with auditing and it clarifies the points to note when establishing and operating the CMS.

Regulations relating to chemical substances contained in products are expected to become increasingly strict in the future from the viewpoint of environmental conservation and consumer protection. We at the Fujitsu Group intend to continue promoting the establishment of the CMS along with the acquisition of inclusion information about regulated chemical substances from our business partners.

#### 4. Promotion of environmental activities with business partners

Of the current environmental issues, the one with the most serious impact on human beings is "global warming" caused by emissions of greenhouse gases such as CO<sub>2</sub>. This issue, which may be referred to as the "climate change issue" to give it a little broader meaning, greatly influences other environmental issues such as biodiversity and water resources. In addition, since the Great East Japan Earthquake on March 11, 2011, activities for reducing CO<sub>2</sub> emissions by saving energy have gained importance in Japan because of the tight energy supply and demand balance due to shutdowns

of nuclear power stations and increased usage of fossil fuels, obliged by the operation of thermal power stations. As is generally known, enterprises including Fujitsu must deal seriously with these issues.

In view of such social conditions, the Fujitsu Group considers it as necessary to promote environmental activities with business partners and is carrying out the following activities. Based on our idea that environmental activities become more effective when they are applied to a wider value chain, we expand these activities to cover business partners in all domains regardless of whether or not they are related to materials/parts.

#### 4.1 Grasp of status of business partners' activities using Environmental Activity Survey Form

In order to gain an understanding of the status of environmental activities carried out by business partners, we ask them to complete the Environmental Activity Survey Form we have developed. This form contains questions relating to reduction of CO<sub>2</sub> emissions, establishment of the Environmental Management System (EMS), and biodiversity conservation and water resources conservation. This form also allows us to acquire detailed information about the status of business partners' environmental activities.

#### 4.2 Promotion of reduction of CO<sub>2</sub> emissions with business partners

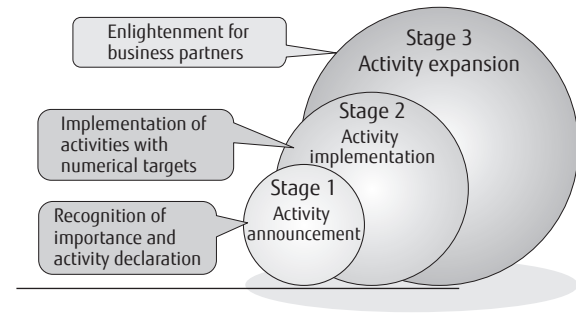
As a result of reviewing the answers given by business partners, we request some of them to improve their activities.

Specifically, we use our own guide called "activity stages" (Figure 3) to check the status of CO<sub>2</sub> reduction activities of business partners and request those not carrying out CO<sub>2</sub> reduction activities to announce and implement CO<sub>2</sub> reduction activities with target values (Stage 2). When asking for improvement, we do not simply make a request but offer assistance so that the business partners can start activities on their own initiative (details are listed in the following section).

The activity stages are defined as follows.

##### 1) Stage 1: Activity announcement

Make a public announcement to take approaches to limiting and reducing CO<sub>2</sub> emissions (ideally, the business partner should know or manage the amount



**Figure 3**  
Expanding activity stages.

of their CO<sub>2</sub> emissions).

##### 2) Stage 2: Activity implementation

Actually perform activities (ideally, the business partner should set numerical targets to manage the progress of activities).

##### 3) Stage 3: Activity expansion

Expand the activities from the internal to the external level. Specifically, perform either of the following activities.

- Prompt the upstream areas of the value chain to engage in limiting and reducing CO<sub>2</sub> emissions
- Work in collaboration with external organizations (industry, national and local governments, Japan Business Federation, NGOs/NPOs, etc.)

#### 4.3 Request for activity implementation through explanatory meetings

To start activities, we invited business partners to explanatory meetings. In those meetings, we asked business partners to recognize "reduction of CO<sub>2</sub> emissions" as an important challenge for them to work on and to start activities immediately (Figure 4).

### 5. Assistance with activities for business partners

The Fujitsu Group is actively providing assistance to encourage business partners to work on "reduction of CO<sub>2</sub> emissions" so that they themselves devise activities to carry out and start implementing them. As one specific example, we hold seminars using our own educational materials to provide exercises in which participants can obtain an awareness of activities by exchanging opinions with each other. Another example is the provision of a tool for calculating CO<sub>2</sub> emissions based on power usage, which makes it easier to begin



**Figure 4**  
Explanatory meeting for business partners.



**Figure 5**  
Green Suppliers' Day.

activities with numerical targets. In the present stage (Stage VII: FY2013–FY2015), we have expanded the promotion to business partners not related to materials/parts, such as those offering software and services, and started providing our original check list presenting examples of specific activities, which may offer insights for activities.

In parallel with the activities above, the Fujitsu Group also supports activities for biodiversity conservation in order to recover the innate regenerative power of the earth. As one such activity, we hold an event called Green Suppliers' Day (**Figure 5**). This event offers the participants hands-on activities intended to help them understand the importance of biodiversity conservation by having them experience together with other business partners *satoyama* (a forest close to human habitation) conservation activities (pruning of head-high variegated pleioblastus [bamboos native to China and Japan] and thinning of konara oak trees) and nature walks with lectures given by NPOs. We hold this event regularly once a year so as to give the participants an opportunity to engage in biodiversity conservation.

## 6. Conclusion

Since the enforcement of the EU RoHS Directive in 2006, similar regulations have been put into effect in Asian countries including South Korea and China and other countries such as Ukraine and Turkey. There is also a movement toward legislation in countries such

as the U.S., Australia, Argentina, Malaysia and Brazil and even stricter management of chemical substances in products will be required of global enterprises in the future.

To address environmental issues including climate change, biodiversity and water resources, international conferences and the governments of various countries are discussing and implementing measures. However, the situation is becoming increasingly serious year by year and enterprises are required to take positive actions.

The Fujitsu Group is committed to implementing green purchasing together with business partners in the upstream areas of its value chain, with the focus on important challenges to address as an enterprise, while paying attention to international trends and social conditions relating to the environment.

## References

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