



Green Procurement Guideline

7th Edition

May 2018

Table of Contents

1. Introduction	3
2. Purposes	4
3. Scope of application	4
4. Tamagawa Seiki's environmental conservation activities	
4.1 Basic policies	5
4.2 Environment policy	5
5. Tamagawa Seiki's Green Procurement Standards (Requirements)	
5.1 Approach to Tamagawa Seiki's Green Procurement	6
5.2 Establishment of management system	7
5.2.1 Establishment of environmental management system	7
5.2.2 Establishment of management system of environmentally hazardous substances	8
5.3 Cooperation to survey on environmentally hazardous substances	8
5.4 Non-inclusion of prohibited substances	9
6. Other	9
7. Revision history	10
Appendix 1. Prohibited substances	11
Appendix 2. Prohibited substances with conditions	11
 [Exhibit]	
Form 1. Questionnaire on environmental conservation initiatives	
Form 2. Certificate of non-use of prohibited substances	

1. Introduction

Our lives have become rich and convenient due to advances in technology and economic development, but they are having a serious impact on the global environment, such as the loss of biodiversity caused by climate change and the exhaustion of resources due to mass consumption of resources.

Recognizing these global environmental issues and promoting environmental initiatives towards a sustainable society is an urgent issue for our company as well.

The Tamagawa Seiki Group has established Green Procurement Guideline in 2004 to provide products with less environmental impact to customers, and has been promoting green procurement activities on procurement items with the cooperation of suppliers.

In recent years, the importance of environmental initiatives as a whole supply chain has increased, the tightening of laws and regulations such as the European RoHS Directive and REACH Regulation has progressed, and the environment surrounding enterprises has undergone significant changes.

In order to respond to such changes, the Tamagawa Seiki Group decided that review of this document is necessary and decided to issue the 7th edition.

We sincerely hope to further develop our efforts toward “Harmony with the global environment” with you, so we ask for your cooperation from our suppliers.

Tamagawa Seiki Co., Ltd.
Person responsible for environmental
management system execution

2. Purposes

These guidelines show the Green Procurement Standards for procurement items purchased by the Tamagawa Seiki Group (hereinafter referred to as “Tamagawa Seiki”). Tamagawa Seiki promotes efforts towards harmony with the global environment and aims to build a sustainable society by developing environmentally conscious manufacturing throughout the supply chain including our business partners.

3. Scope of application

Applicable to all procurement items purchased by Tamagawa Seiki below, all our suppliers who will deliver them shall be covered.

- (1) Raw materials, parts, and unit goods used for Tamagawa Seiki's products
- (2) Outsourced items that Tamagawa Seiki outsources to vendors for manufacturing and processing
- (3) Supplementary materials jigs and tools used in the production process of Tamagawa Seiki
- (4) Packing materials used for Tamagawa Seiki products
- (5) Products that Tamagawa Seiki outsources to vendors for designing and manufacturing and sells as Tamagawa Seiki brand

4. Tamagawa Seiki's environmental conservation activities

4.1 Basic policies

Tamagawa Seiki has established environmental protection as one of its basic policies, recognizing that "environmental conservation is a mission imposed on a company, recognizing this as one of the important pillars of business activities, and we take responsibility for ourselves and work on environmental conservation activities throughout the company under the environment policy".

We will promote environmental conservation activities with the "business activities in harmony with nature and the environment - environment improvement activities coordinated with local communities - business activities that stakeholders can feel secure" as the action guidelines.

4.2 Environment policy

Environment Policy

Based on corporate philosophy of "Striving to build an industry ready for the 21st century through creative business activities, contributing to the economic revitalization of communities", as Tamagawa Seiki we make improving the environment a part of every step we take.

1. As a company blessed by the beautiful greens of nature that surround us, we fulfill compliance obligation to environmental laws and regulations by striving to prevent pollution, make a use of sustainable resource, extenuate the climate change and adapt to climate change, and protect biodiversity and eco-systems.
2. We establish environmental objectives for the below business activity, products, and services, and work for continual improvement in order to advance environmental performance.
 1. Approach to low carbon society
Eco-friendly product lifecycle, energy saving
 2. Preservation of resources
Waste reduction, resource saving
 3. Coexisting with nature
Zero-environmental pollution, reduction of environmental load substance
 4. Responsible business activity
Compliance to environmental laws and regulations, regional contribution
3. We demonstrate our responsibility to the community in collaborating with other companies and organizations to continuously engage in groundbreaking initiatives and contribute to the sustainable development of communities.

November 21, 2016
Shigeo Seki
President and Chief Operating Officer,
Tamagawa Seiki Co., Ltd.

Shigeo Seki

5. Tamagawa Seiki's Green Procurement Standards (Requirements)

5.1 Approach to Tamagawa Seiki's Green Procurement

In addition to the procurement standards such as the “quality”, “delivery date”, “price” and so forth, Tamagawa Seiki's basic idea is to purchase procurement items preferentially from suppliers who consider the environment.

Tamagawa Seiki's Green Procurement

Procurement items to be incorporated into Tamagawa Seiki's products/procurement items shipped with Tamagawa Seiki's products
(Example: finished products, parts, members, packaging materials)

Other procurement items
(Example: services, production/test equipment)

◆ Suppliers

5.2 Establishment of management system

5.2.1 Establishment of environmental management system

5.2.2 Establishment of management system of environmentally hazardous substances

>> Submission of Form 1 “Questionnaire on environmental conservation initiatives”

5.3 Cooperation to survey on environmentally hazardous substances

>> Survey response (individual request)

◆ Procurement item

5.4 Non-inclusion of prohibited substances

>> Submission of Certificate of non-use of prohibited substances (individual request)

◆ Suppliers

5.2 Establishment of management system

5.2.1 Establishment of environmental management system

>> Submission of Form 1 “Questionnaire on environmental conservation initiatives”

5.2 Establishment of management system

Suppliers are requested to implement “Establishment of environmental management system” in Section 5.2.1 and “Establishment of management system of environmentally hazardous substances” in 5.2.2.

Regarding the efforts of the management system of suppliers, we will ask to submit Form 1 “Questionnaire on environmental conservation initiatives” and will evaluate it.

5.2.1 Establishment of environmental management system (All our suppliers)

We would like to request our suppliers to establish a system that can promote environmental conservation activities and realize continuous improvement. To that end, please obtain external certification of ISO 14001 or establish the environmental management system according to ISO 14001 on the basis that one of the following (1) to (3) is satisfied.

- (1) You have acquired ISO 14001 external certification.
- (2) You have acquired certification of the following environmental management system promoted by the country, local government, and others.

Management system name	Supervising organization
Eco-Action 21	Ministry of Environment
Eco-Stage	Eco Stage Institute
KES (Kyoto Environmental Management System Standards)	KES Environment Organization
Minami Shinshu EMS 21	Minami Shinshu Wide Area Union

- (3) If the above (1) and (2) are not satisfied, in Form 1 “Questionnaire on environmental conservation initiatives”, the following essential items have to be addressed and there are 70 or more evaluation points.
 - You participate in environmental volunteer activities and community contribution activities.
 - You grasp the environmental laws that your should comply with and keep them up to date.
 - You have formulated policies including the contents of environmental management.
 - We set goals and implementation plans that lead to energy conservation and resource saving.

- We monitor, measure, analyze and evaluate targets and compliance efforts.
- We reviewed the initiatives and the representative gives directions to the results.

5.2.2 Establishment of management system of environmentally hazardous substances (suppliers related to products)

We ask our suppliers that deliver procurement items to be incorporated into Tamagawa Seiki's products to establish the management system of environmentally hazardous substances based on the latest version of "Guidelines for Management of Chemicals in Products*".

* Guidelines for Management of Chemicals in Products:

<http://www.jamp-info.com/english>

In providing Tamagawa Seiki's products to customers, we may check the management system of environmentally hazardous substances of our suppliers.

5.3 Cooperation to survey on environmentally hazardous substances (suppliers related to products)

We request our suppliers who deliver procurement items to be used in Tamagawa Seiki's products to grasp the contents of environmentally hazardous substances contained in procurement items.

In case we will request from Tamagawa Seiki, we will request suppliers to provide information on environmentally hazardous substances in the following submission format for procurement items.

Submission format	Format providing organizations
chemSHERPA (components)	Ministry of Economy, Trade and Industry
IMDS	Japan IMDS Service Center
JAMA/JAPIA unified data sheet (JAMA sheet)	JAMA (Japan Automobile Manufacturers Association) JAMA (Japan Auto Parts Industries Association)
Other (Information on environmentally hazardous substances required by customers of Tamagawa Seiki)	

- Please use the latest version as requested from Tamagawa Seiki for the submission format.
- Please confirm the submission format from the website of the providing organizations below.

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

IMDS (<https://public.mdsystem.com/en/web/imds-public-pages/home>)

JAMA/JAPIA (<http://www.japia.or.jp/english/>)

- Suppliers are responsible for the contents and concentrations of environmentally hazardous substances reported in the submission format.
- When there are changes in the information you provided, please provide the latest information.

5.4 Non-inclusion of prohibited substances (Procurement items related to products)

Procurement items used in Tamagawa Seiki's products shall not include Appendix 1 "Prohibited substances" and Appendix 2 "Prohibited substances with conditions".

(1) Prohibited substances

Substances that are prohibited to be included in all products

(2) Prohibited substances with conditions

Substances prohibited to be included with limitation of products and product groups

Regarding procurement items requested by Tamagawa Seiki, you will be required to submit one of the following, and ensure that the prohibited substances are not included or below the threshold.

(1) chemSHERPA (compliance)

(2) Green Procurement Guideline Form 2 "Certificate of non-use of prohibited substances"

(3) Supplier written certification in its own style*

* Those that Tamagawa Seiki recognizes including the certification of non-inclusion of 10 substances prohibited by the European RoHS Directive

6. Other

(1) Please report to Tamagawa Seiki about environmental pollution accidents, violations of environmental laws and administrative guidance at business partners.

(2) The contents of these guidelines may be changed without prior notice due to new regulations and social conditions and others.

(3) Documents submitted will not be disclosed to the outside without your permission. However, component information on environmentally hazardous substances and the results of non-content determination may be provided to Tamagawa Seiki's customers.

7. Revision history

Version number	Issued date	Contents
1st edition	November 2004	1st edition issued
2nd edition	December 2006	<ul style="list-style-type: none"> · Clarified the target scope of business partners · Revised the environment policy · Prescribed to abolish component report of delivered materials and to use JGPSSI tool · Transferred of PBB and PBDE from prohibited substances to regulated substances
3rd edition	March 2007	<ul style="list-style-type: none"> · Clarified regulatory targets of prohibited substances · Clerical corrections
4th edition	January 2012	<ul style="list-style-type: none"> · Addition of an item of Management system of environmentally hazardous substances to the Green Procurement Standards · Review of submission method of environmentally hazardous substance data · Review of Appendix 1 (Prohibited substances) and Appendix 2 (Prohibited substances with conditions) · Clarification of the score of Form 1 (Questionnaire on environmental conservation activity initiatives)
5th edition	March 2013	<ul style="list-style-type: none"> · Update of environment policy · Review of Form 1 (Questionnaire on environmental conservation initiatives) · Review of Appendix 2-1 (Exempted items)
6th edition	February 2014	<ul style="list-style-type: none"> · Update of environment policy
7th edition	May 2018	<ul style="list-style-type: none"> · Update of environment policy · Changed the survey format of environmentally hazardous substances (JAMP → chemSHERPA) · Review of Form 1 (Questionnaire on environmental conservation initiatives) · Review of Form 2 (Certificate of non-use of prohibited substances) · Review of target substances in Appendix 1 and Appendix 2

Appendix 1. Prohibited Substances

NO.	Chemical substance name	CAS. No.	Scope (threshold)	Examples of Usage and Application
1	Asbestos	1332-21-4 and others	Intentional addition	Electrical insulator, filler, thermal insulator
2	Bis (tributyltin) oxide (TBTO)	56-35-9	Intentional addition	Paint, pigment, antiseptic agent, refrigerant, expanding agent
3	Dibutyltin compounds (DBTs)	818-08-6 and others	1,000 ppm in homogeneous material	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin
4	Diocetyl tin compounds (DOTs)	870-08-6 and others	1,000 ppm in mold	
5	Tri-substituted organostannic compounds (TBTs, TPTs)	2155-70-6 and others	Intentional addition 1,000 ppm in homogeneous material	Pigment, paint, flame retardant, stabilizer, n-type dopant
6	Hexabromocyclododecane (HBCD)	25637-99-4 and others	Intentional addition 100 ppm in homogeneous material	Flame retardant (mainly used for expanded polystyrene and certain fibers)
7	Polychlorinated biphenyl (PCB)	1336-36-3 and others	Intentional addition	Insulating oil, lubricating oil, electrical insulating medium, plasticizer, paint solvent, heat medium
8	Polychlorinated terphenyl (PCT)	61788-33-8 and others	50 ppm in homogeneous material	
9	Polychlorinated naphthalene (PCN)	70776-03-3 and others	Intentional addition	Lubricating oil, paint, plastic stabilizer, electrical insulating medium, flame retardant
10	Short chain type chlorinated paraffins *1	85535-84-8 and others	Intentional addition 1,000 ppm in homogeneous material	Grease, metalworking fluid, flame retardant, plasticizer for PVC
11	Perfluorooctane sulfonate (PFOS)	307-35-7 and others	Intentional addition 1,000 ppm in homogeneous material	Photolithography, photographic coating material, hydraulic oil, metal plating, detergent, fire extinguishing agent, paper coating material
12	Salts and esters of perfluorooctanoic acid (PFOA)	335-67-1 and others	Intentional addition	
13	Fluorine-based greenhouse gases (PFC, SF6, HFC)	75-73-0 and other	Intentional addition	Refrigerant, spraying agent, fire extinguishing agent, cleaning agent, insulating material, caustic gas, fumigation
14	Ozone-depleting substances *2	75-69-4 and others	Intentional addition	
15	Azo dyes and pigments	92-67-1 and others	30 ppm in woven and leather products	Pigment, dye, colorant
16	2-(2H-1, 2, 3-benzotriazol-2-yl)-4, 6-di-tert-butylphenol	3846-71-7	Intentional addition	Adhesive, paint, printing ink, plastic, ink ribbon, putty, caulk, sealing filler (UV absorber)
17	Dimethyl fumarate	624-49-7	0.1 ppm in homogeneous material	Desiccant, mildew-proofing agent
18	N-Phenyl-benzenamine reaction products with styrene and 2, 4, 4-trimethylpentene (BNSTs)	68921-45-9	Intentional addition (Excluding tire rubber application)	Additive (antioxidant) used for rubber and lubricating oil
19	Specific polycyclic aromatic hydrocarbons (PAHs)	50-32-8 and others	1 ppm for applications contacting with the skin or mouth	Pigment (impurities) in rubber or plastic

*1: Short chain chlorinated paraffins with carbon chain length of 10 to 13 are targeted.

*2: Substances subject to the Montreal Protocol, Class I: chlorofluorocarbons (CFCs), halons, carbon tetrachloride, methylchloroform (1, 1, 1-trichloroethane)

Appendix 2. Prohibited substances with conditions

NO.	Chemical substance name	CAS. No.	Scope (threshold)	Examples of Usage and Application
1	Cadmium and its compounds *3	7440-43-9 and others	100 ppm in homogeneous material	Pigment, corrosion-resistant surface treatment, battery, contact, optical material, polyvinyl chloride stabilizer
2	Hexavalent chromium compound *3	1333-82-0 and others	1,000 ppm in homogeneous material	Pigment, paint, ink, catalyst, anticorrosion surface treatment, dye, rust prevention
3	Lead and its compounds *3	7439-92-1 and others	1,000 ppm in homogeneous material	Pigment, paint, rubber hardener, battery, plastic stabilizer, rubber vulcanizing agent, solder, glass, free-cutting alloy, alloy component, various resin additive
4	Mercury and its compounds *3	7439-97-6 and others	1,000 ppm in homogeneous material	Battery, fluorescent material, contact, thermometer, pigment, switch
5	Polybrominated biphenyls (PBBs)	59536-65-1 and others	1,000 ppm in homogeneous material	Flame retardant
6	Polybrominated diphenyl ethers (PBDEs)	101-55-3 and others	1,000 ppm in homogeneous material	
7	Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	1,000 ppm in homogeneous material	Plasticizer, dye, pigment, paint, ink, adhesive
8	Dibutyl phthalate (DBP)	84-74-2	1,000 ppm in homogeneous material	
9	Butyl benzyl phthalate (BBP)	85-68-7	1,000 ppm in homogeneous material	
10	Diisobutyl phthalate (DIBP)	84-69-5	1,000 ppm in homogeneous material	

*3: The use of exempt items of the European RoHS Directive is not applicable.

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First edition: Established on November 21, 2004