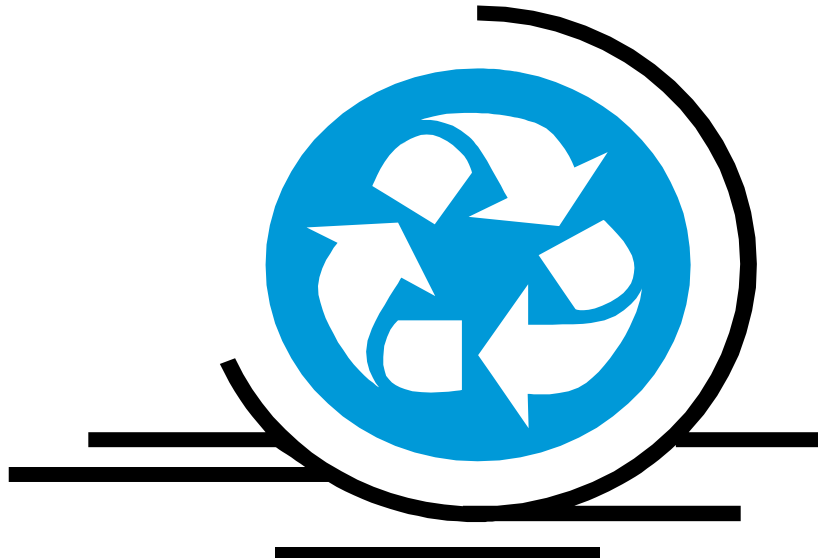


NPT approach to green procurement



NPT Green Procurement Guideline

4th edition

Edition revised on 27-Feb-08



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Introduction to NPT approach to Green Procurement

The 21st century is often referred to as the 'Century of the Environment' as many companies including Namiki Precision (Thailand) Co., Ltd. have agreed to implement environmental preservation activities for the sake of future generations.

Our company is committed to the slogan "Sustainable development" and we place great importance on certification; we obtained our ISO14001 certificate in December 2000.

We give careful consideration to providing best-in-class product quality at reasonable prices, always taking into account the environmental aspect.

This guideline explains the basic concept of NPT's green procurement principles in order that our company and our suppliers can achieve continual improvement.

Should there be any change in circumstances or any change in applicable legal or other requirements, the Green Procurement Guideline will be revised, and suppliers will be expected to submit an updated questionnaire to NPT. Suppliers will be ranked according to the criteria outlined in this guideline. We look forward to your cooperation as our green partners.

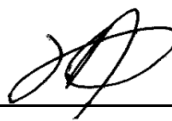
NPT green procurement policy

In recognition of the environmental conservation as one of the most important missions given to mankind and we have strived to be an environmentally friendly company. Although the control of our internal system is important, we also recognize that our suppliers have an important role in minimizing the environmental burden throughout our products life cycle.

In so doing, Namiki Precision (Thailand) Co., Ltd. commits to procure the **"Environmentally Preferable Products"** by,

- Procure from suppliers who proactively promote the environmental protection.
- Procure the materials and products that are environmental friendly and do not contain harmful substances.

NPT intends to fulfil the customer's environmental requirement to gain their great satisfaction.



Mr. Michio Miyagawa
President
Namiki Precision (Thailand) Co., Ltd.
19-Feb-07

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NPT Green procurement guideline

1. Purpose

The environmental policy of Namiki Precision (Thailand) Co., Ltd. (NPT) commits to providing best-in-class products that are environmentally friendly and fully comply with international requirements for controlled chemical substances and environmental-related systems.

This document is established for green procurement activities in order to effectively minimize the use of environmental-related hazardous substances in materials/supplies based on the NPT environmental policy in terms of sustainable development.

This is also a guideline for procurement activities that provides criteria for purchasing components with the intention of selecting only those products that have low environmental impact and doing business with only those suppliers that have implemented environmental preservation activities.

2. Scope of Application

This guideline is applicable to all suppliers that provide products to our company, e.g., materials or supplies including services, chemical substances and packing materials.

3. Terms and Definitions

Terms and definitions used in this guideline refer to those mentioned in the ISO14001 standard.

- **Product assessment:**
The assessment of the environmental impact of a product throughout its design process. The term "product assessment" refers to the notion that the raw material production, manufacture, distribution, use, recycle and disposal including transportation steps must be assessed. This might lead to product design change where necessary in order to minimize the environmental impact of a product or to optimize the environmental performance of a company.
- **RoHS:** Restriction of the use of certain hazardous substances in electrical and electronics equipment. (Standard to Directive 2002/95/EC of the EU Parliament and the Council of January 27, 2003 on the restriction of the use of certain hazardous substances in electrical and electronics equipment. (Pb, Hg, Cr+6, PBB and PBDE to be less than 1000 ppm and Cd to be less than 100 ppm.)
- **Sustainable development:** The main principle to bear in mind when developing a product or process, in order to minimize environmental impact, reduce energy and raw material waste, or to make the best use of resources.

4. NPT Environmental Preservation Activities

4.1 Environmental principle

NPT applies unique, clean technology to prevent pollution and protect the global environment. The activities are intended to enhance the overall performance of environment preservation and contribute to human health.

4.2 Environmental activities

NPT has established an environmental objective and target consistent with its environmental policy, including the commitment to prevent pollution and strive for continual improvement. Our activities are performed in a manner that respects nature, and we strive to protect and improve the global environment. The environmental objective and target is subjected to periodic review at which time all technological options and business requirements are taken into account. In order to improve the effectiveness of our environmental performance, NPT has implemented an environmental management system (EMS) and obtained ISO14001 certification in the year 2000. NPT's environmental policy is also made available to the public.

5. NPT Green Procurement

5.1 Basic concept of green procurement

NPT intends to minimize the hazardous substance content in our products, which requires the kind cooperation of our green partners. The following is a list of activities to help us reach our green procurement goal.

1) Procurement of components from suppliers who implement environmental preservation activities

Basically, our suppliers are required to conduct activities that demonstrate their commitment to environmental preservation.

The Purchasing Dept. will consider whether or not a supplier has obtained ISO14001 certification by a certificate body (CB), ensuring the effective implementation of an environmental management system. Suppliers certified by a CB will be given high priority during the procurement process.

2) Procurement of components, services and packing materials with low environmental impact

For all product components including packing materials used for the product or in a product process. NPT intends to use only those components that have low environmental impact or those that are specifically designed for the environment (*ecodesign*).

5.2 Green Procurement Standard

NPT has established a green procurement standard including the evaluation criteria for suppliers and component procurement.

The main point to review is environmental activities in relation to the environmental impact of the supplier's products.

1) Criteria for component selection

Regarding the selection criteria for purchasing components, not only is quality and price considered, but NPT also takes into account the chemical substances contained in a single part.

NPT prefers products with low environmental impact in line with good quality and reasonable price.

Basic principle of hazardous substance reduction and minimization

- ☑ Products from suppliers should not contain any controlled substances described on the list "Environmental-related Controlled Substances" on page 5 of this guideline. Exceptions may be considered in the case of a supplier that intends to minimize the use content of the controlled substance in the product.
- ☑ Products should use minimal natural resources and consume little energy.
- ☑ As with products, suppliers should minimize the use of natural resources, promoting the use of returnable containers. The control of chemical substances in packing materials should also be taken into account.
- ☑ Suppliers' activities must comply with regulations and other requirements concerning waste disposal laws, the energy saving laws, etc.
- ☑ Product assessment results, e.g. ICP data or MIL sheets, should be available upon request.
- ☑ Environmental-related information on products must be communicated to the public.
- ☑ The use of recycled resin in molding part is prohibited.

However, if the chemical content in a single part comply NPT chemical standard, it can be accepted. (For further information, please contact our Purchasing officer)

(1) Evaluation items concerning chemical substances contained in products

- Suppliers must provide NPT with the "Environmental questionnaire concerning chemical substances" and ICP data or material analysis certificate, RoHS certificate.
- Components shall not contain any of the chemicals listed in Level 1.
Exemption for the content of Cr+6, Pb, Hg, PBB and PBDE for 1000 ppm and 100 ppm for Cd as referred to in the RoHS directive (Council directive 2002/95/EC)

2) Criteria for supplier selection (Based on Q-C-D-S-E principle)

When selecting a supplier, **Quality, Cost, Delivery, and Service** performances are the main items to be considered.

Also taken into account is the supplier's **Environmental preservation activities**.

<p>(2) Evaluation items concerning environmental management system (ISO14001)</p> <ul style="list-style-type: none"> - The supplier is certified according to ISO14001 by an external certification body. - The supplier plans to obtain ISO14001 certification within a year. - The supplier has no plans to obtain ISO14001 certification. <p>(3) Evaluation items concerning environmental preservation activities</p> <p><i>(* Optional: if the supplier has obtained ISO14001 certification, this item can be omitted.)</i></p> <ul style="list-style-type: none"> - Employee awareness and environmental policy - Environmental management plan and company organization - Environment assessment system - Training and internal communication

For suppliers, please note the following items:

- Supplier ranking is judged from the evaluation items, e.g., chemical substances contained in a product, environmental management system (ISO14001) and environmental preservation activities.
- Supplier ranking is divided into 3 categories: **Green (Pass)**, **Yellow (Pass with condition)** and **Red (Fail)**

<p>< G > Pass</p>	<ol style="list-style-type: none"> 1. The breakdown of substances in the supplied component complies with Namiki's chemical standards. 2. The supplier has obtained ISO14001 certification.
<p>< Y > Pass with condition</p>	<ol style="list-style-type: none"> 1. The breakdown of substances in the supplied component complies with Namiki's chemical standards. 2. The supplier has not yet obtained ISO14001 certification, but evaluation through the NPT green procurement survey is higher than 85 points.
<p>< R > Fail</p>	<ol style="list-style-type: none"> 1. The supplied component does not comply with Namiki's chemical standards. 2. The supplier has not yet obtained ISO14001 certification and has no plans to do so. Evaluation through the NPT green procurement survey is lower than 80 points.

- The evaluation results and ranking will be communicated to the supplier.
- If the supplier's ranking is " G or Y ", business dealings can continue without any problem.
- In the case of a supplier failing the evaluation, any newly issued purchase orders to that supplier might be temporarily suspended until the supplier implements improvement measures.
 Or, business dealings with this supplier might be terminated.

6. NPT Supplier Requirements

NPT expects suppliers to cooperate by replying to the two enquiries. Please take note of the following memorandum conditions:

1. NPT Green procurement survey

This questionnaire requests information about the supplier's activities to promote environmental preservation, including the establishment of an environmental management system.

2. Environmental questionnaire concerning chemical substances

- In order to confirm the status of controlled substances in suppliers' products including the contents, we ask you to complete the "Environmental questionnaire concerning chemical substances" and submit it to NPT together with the material ingredient list, ICP data or MSDS.
- If a controlled substance is used in your manufacturing process, please submit the material ingredient list, ICP data or MSDS as well.

3. Conclusion of the memorandum agreement to minimize controlled substances

When NPT need to confirm the minimization of controlled substances in products provided by the supplier, not only must the above-mentioned questionnaires be submitted to NPT, but the supplier must also conclude a memorandum agreement with NPT.

NPT is very proud to have such great support from all our suppliers.

Our green procurement activities contribute to environmental awareness and minimize the impact on the environment. Your cooperation and support makes it possible for us to provide the global market with environmentally friendly products of unsurpassed quality.

For suppliers, please support us by completing the following:

- Fill out the **NPT Green procurement survey** and **Environmental questionnaire concerning chemical substances** attached to this guideline.

Return the completed survey to our Purchasing officer.

It is strongly recommended for you to stamp your company seal on the questionnaire.

- For new suppliers, we request your cooperation in submitting the "NPT Green procurement survey" and "Environmental questionnaire concerning chemical substances" to NPT.
- For a supplier which the name has changed, we request your cooperation in submitting the "NPT Green procurement survey"
- If the base raw material of a component or a process condition is changed, or if a chemical substance used in a component is changed, the supplier is required to submit the "Change application from supplier" so NPT could consider whether it is necessary for the supplier to resubmit the "Environmental questionnaire concerning chemical substances" again.

Thank you for your cooperation.

Conclusion

In the efforts made towards protecting the environment and achieving the objectives of this guideline, suppliers must undertake the following:

- Every effort must be made to minimize the use of hazardous substances in all products.
- Packing material must be returnable or must at least minimize the use of resources.

7. Environmental-related Controlled Substances

NPT has given serious thought to our role in reducing environmental risk. One crucial measure is to eliminate the use of hazardous substances in our products.

Prohibited substance includes chemical substances mentioned in the RoHS directive and substances that are prohibited, limited, or restricted in use based on the international standard or Thai law concerning use in products.

They can cause severe environmental effects and be harmful to human health.

NPT requires that suppliers find a replacement if they currently use these substances.

Substance name	Principle use/Purpose of use	Threshold content
Cadmium and Cadmium Compounds *	Contact point, surface treatment, low melting solder plating Plastic (rubber also included), pigment or dyes, ink All heavy metal in packing material	<0.01% (100 ppm) <0.0075% (75 ppm) <0.0005% (5 ppm) <100 ppm
Hexavalent Chromium Compounds *	Pigment/paint, catalyst, plating, ink, Anti-corrosion surface treatment, photo, surface treatment etc. All heavy metal in packing material	<0.1% (1000 ppm) <1000 ppm
Lead and Lead Compounds *	Solder, brazing solder, rubber vulcanizer, plating Electroless Ni plating, electroless gold coating Plastic (rubber also included), pigment/paint, ink All heavy metal in packing material	<0.1% (1000 ppm) <1000 ppm <0.01% (100 ppm) <100 ppm
Mercury and Mercury Compounds *	Electrode, mercury lamp, mercury battery/cell antibacterial treatment, painting, metal etching, dry cell etc. All heavy metal in packing material	<0.1% (1000 ppm) <100 ppm
Tributyl Tin Oxide (TBTO) Tributyl Tins & Triphenyl Tins	Ink, ship bottom paint, preservatives and fungicides	Prohibited
Polychlorinated Biphenyls (PCBs)	Transformers/capacitor oil	Prohibited
Polychlorinated naphthalenes (Cl=>3)	Lubricant, paint, flame retardant, stabilizer	Prohibited
Vinyl Chloride Polymer (PVC)	Substrate for contactless IC card	Prohibited
Short Chain Chlorinated Paraffins	Cabinet of product (including accessories), PWB/PCB	Prohibited
Polybrominated Biphenyls (PBBs) *	Flame retardant	<0.1% (1000 ppm)
Polybrominated Diphenyl ethers (PBDEs) *	Flame retardant	<0.1% (1000 ppm)
Asbestos	Friction material, asbestos gasket, adiabatic material	Prohibited
Azo Colorants	Pigment, dye/colorant, adhesive	Prohibited
Ozone Depleting Substances	Halons : Cleaning agent HCFC : Freon gas, refrigerant, foaming agent HFC : Freon gas, refrigerant	Prohibited
Radioactive Substances	All uses	Prohibited
Formaldehyde	Particle board, wooden products	Prohibited

* Exemption/allowable use is referred to EU RoHS directive.

Controlled substance

Substance that may have negative impact to environment, health, safety and end-of-life management.

In this nearly future, these substances maybe banned.

Substance name	Principle use/Purpose of use	Threshold content
Antimony and Antimony Compounds	Flame retardant, adhesive, solder	1000 ppm (Maximum)
Arsenic and Arsenic Compounds	Antifoamer for glass, paint, semiconductor substrate	1000 ppm (Maximum)
Beryllium and Beryllium Compounds	Alloy, glass, research reagent	1000 ppm (Maximum)
Bismuth and Bismuth Compounds	Semiconductor, solder	1000 ppm (Maximum)
Nickel and Nickel Compounds	Alloy, plating, paint	1000 ppm (Maximum)
Selenium and Selenium Compounds	Semiconductor, paint, photoreceptor	1000 ppm (Maximum)
Magnesium	Metal alloy	1000 ppm (Maximum)
Brominated Flame Retardants	Flame retardant	1000 ppm (Maximum)
Polychlorinated Terphenyls (PCT)	All uses	1000 ppm (Maximum)
Phthalates	Adhesive, paint, pigment/colorant, ink	1000 ppm (Maximum)
Aliphatic CHCs	All uses	1000 ppm (Maximum)
Benzene	All uses	1000 ppm (Maximum)
Carcinogens, mutagens&reproductive toxins	Any applications where contact with skin	1000 ppm (Maximum)
Cobalt	Alloy, paint, pigment/colorant	To be noticed to NPT.
Endangered species of flora and fauna	Any use of parts or materials made of or containing species of wild fauna or flora, or parts of such.	To be noticed to NPT.
Isocyanates	All uses	To be noticed to NPT.
Nonyl Phenols & Nonylphenol Ethoxylates	Textile, leather, metal, pulp and paper parts.	To be noticed to NPT.
Perfluorooctane sulfonates (PFOSs)	All uses	50 ppm by homogenous material.
Substances that may cause skin sensitization	Any applications where contact with skin	To be noticed to NPT.

In case of the provided products also include other substances that not in the above list, please specify the using substance in the questionnaire.

Should you have any further question or require additional information of substances in group list, please ask our Purchasing officer.

Changes history

No.	Changes detail	Edition date
1. The 1st edition	Established the system of green procurement at NPT and first issue of green procurement guideline.	9-Feb-2007
2. The 2nd edition	<p>2.1 Arranged chemical substance list to be controlled by adjusting substance level to be in accordance with Namiki group includes,</p> <ul style="list-style-type: none"> - Polyvinyl Chloride (PVC) from level 2 to level 1 - Tributyl Tin Oxide(TBTO), Tributyl Tins (TBTs) & Triphenyl Tins (TPTs), Polychlorinated Naphthalenes (Cl=>3), Asbestos and Radioactive Substances from level 3 to level 1 - Bismuth and Bismuth Compounds, Nickel and Nickel Compounds, Selenium and selenium Compounds and Magnesium from level 3 to level 2 <p>2.2 Changed the revision of environmental questionnaire concerning chemical substances to add column of CAS No., Abolition plan and Abolition schedule.</p>	15-Feb-2007
3. The 3rd edition	<p>3.1 Added the mention of not to use the recycled resin in molding parts with the exemption.</p> <p>3.2 Added details for the supplier to stamp company seal on the questionnaire.</p>	26-Oct-2007
4. The 4th edition	<p>4.1 Arranged chemical substance list to be controlled by adding e.g. Aliphatic CHCs, Benzene, Carcinogens, mutagens&reproductive toxins Cobalt, Endangered species of flora and fauna, Isocyanates, Nonyl Phenols & Nonylphenol Ethoxylates, Perfluorooctane sulfonates (PFOSs) and Substances that may cause skin sensitization</p>	27-Feb-2008