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Product Technology Subcommittee

With the widening scope of environmental regulations on products, Toyota Industries is working to develop products with an eye to compliance with future regulatory standards.

The worldwide trend toward stronger environmental regulations on products has made regulatory compliance fundamental to the existence of corporations. As a global manufacturer, Toyota Industries places the utmost priority on environmental concerns in our product development activities while continuing to stress the importance of quality. Furthermore, we are aggressively pursuing the development of technology that enables us to address environmental issues. Despite our involvement in a diverse range of product areas, Toyota Industries is fully committed to incorporating environmental design into all of our products in order to minimize environmental impact throughout the entire product life cycle and to contribute to the sustained growth of society as a whole.

Environmental Design

Incorporating prior environmental assessments at the product development stage

The European Union has taken a leading role in strengthening its environmental regulations of products, and Toyota Industries firmly believes that other countries will follow suit. The Product Technology Subcommittee, which is made up of managers from the company's product development departments, is responsible for monitoring regulatory trends and identifying the impacts on company products in order to determine what product changes need to be made. Environmental regulations on products can range from conventional standards aimed at improving fuel efficiency and achieving cleaner exhaust gas emissions, to regulations on the use of substances of concern and the recycling rate of products. Compliance with these regulations requires the use of environmental assessments and environmental measures throughout the entire product life cycle.

Toyota Industries has acquired ISO 14001 certification for its product development and design departments, with the aim of incorporating environmental measures at the product development stage. In FY 2003, the company established an environmental data processing system that tracks the applicability of environmental regulations for each of its products. Looking forward, Toyota Industries will seek to further improve the recyclability of its products and expand the capabilities of its life cycle assessment (LCA) system*¹, which will enable the company to optimize its environmental assessments covering the entire product life cycle.

Regulatory Trends

Description	2003	2004	2005	2006	2007	2008	2009	2010
EU's end-of-life vehicle (ELV) directive	Enforcement		Tightening		Tightening		Tightening	
Substances of concern	Four substances							
Recycling rate			Certification requirements					
EU waste electrical and electronic equipment (WEEE) directive				Enforcement				
Substances of concern				Six substances				
Recycling rate				Enforcement				
EU regulation on fluorinated greenhouse gases			Expected enforcement					
EU regulation on fluorinated gas leakage			Certification requirements					
EU regulation on fluorinated gas use							Enforcement	
Automobile Recycling Law (Japan)			Full-scale enforcement					

Management of Substances of Concern

Managing and reducing substances of concern in every product

The EU's ELV directive*², which took effect in July 2003, banned the use of lead, mercury, cadmium, and hexavalent chromium in vehicles sold in Europe. Toyota Industries has made a commitment to abandoning the use of these substances, in both its automotive-related products and other products not specifically covered by the ELV directive, as part of a company-wide effort to manage and reduce the use of substances of concern.

Revising Technical Standards

Toyota Industries utilizes in-house technical standards as a key component of its product development and design activities. The company has revised 170 of its in-house technical standards based on the introduction of new environmental legislation regarding substances of concern. These changes are designed to ensure strict regulatory compliance at the product development stage. The revised standards cover everything from surface plating processes to the use of screws, steel sheeting, and other products containing substances of concern.

Reducing Hexavalent Chromium Use

Hexavalent chromium, a substance that prevents rust, will be banned under the EU's ELV directive from July 2007. It can be found in nuts, bolts, and other parts commonly used throughout Toyota Industries' divisions. As part of a company-wide effort to reduce the use of hexavalent chromium, the company conducted a survey of four of its suppliers to determine what preparations have been made to eventually phase out the use of hexavalent chromium. To assess the level of progress in finding substitutes for hexavalent chromium, the company is holding Hexavalent Chromium Special Workshops to increase knowledge and awareness regarding this substance.

*¹ The LCA system assesses the environmental impact of a product throughout its entire life cycle, including the manufacturing, transport, usage, and disposal of the product.

*² The ELV directive was adopted by the European Union to reduce the environmental impact and improve recyclability during the scrapping of used vehicles.

Green Procurement

Forming partnerships with suppliers to procure environmentally friendly products, while prioritizing the procurement of materials with a low environmental impact

Toyota Industries recognizes that it has a critical mandate to reduce its overall impact on the environment by using materials with low environmental impact in order to manufacture, and provide its customers with, environmentally friendly products. To achieve this goal, the company is requesting that its suppliers establish in-house environmental management systems, while managing their use of substances of concern. Toyota Industries is committed to creating a positive partner relationship with its suppliers as a means of promoting green procurement. To assist its suppliers, the company conducts workshops on green procurement and environmental regulations, and arranges on-site visits to monitor the environmental management efforts of its suppliers.

Overview of Activities

Toyota Industries recognizes the increasing emphasis that must be placed on developing environmentally friendly products, and the need to consider the environment in all its procurement activities.

Toyota Industries has adopted environmental standards that govern its procurement from suppliers, in addition to its usual quality, cost, and lead time requirements. These standards are listed in the company's Environmentally Preferable Purchasing Guidelines, which are based on a corporate policy to procure parts and raw materials that have a low environmental impact. Each supplier is required to comply with the guidelines, which state that suppliers must establish an environmental management system and strive to manage and reduce their usage of substances of concern. At the end of FY 2003, 87.5% of suppliers had satisfied the company's requirement of creating their own environmental management system.

Green Procurement Standards

Category		Standards for Green Supplier Certification
Suppliers		Has ISO 14001 certification or meets in-house standards
Substances of concern	Products	Does not contain 19 categories of substances, including heavy metals
	Manufacturing	Does not utilize 457 substances, including organochlorine substances
Other requirements		<ul style="list-style-type: none"> Submission of official corporate commitment to regulatory compliance Reporting of material composition data, etc.

Toyota Industries Procurement Policy

- Fair competition based on an open door policy
- Amicable relationship of mutual benefit based on mutual trust
- Environmentally friendly products based on green procurement
- Localization of business based on good corporate citizenship
- Sound conduct in accordance with the relevant procurement laws

Working Closely with Suppliers

Toyota Industries uses an environmental rating system to assess the quality of the environmental management practiced by its suppliers. In order to assist the suppliers in their efforts to improve their environmental management, the company conducts workshops and other support programs that meet the specific needs of each firm. The workshops cover various subjects including environmental regulations and the establishment of environmental management systems. Furthermore, Toyota Industries works closely with the major suppliers that figure prominently in the company's business activities, conducting on-site inspections of the suppliers' premises aimed at reducing and preventing environmental risks.

Overview of Support Activities

Activity	Scope	Description
Workshops on establishing EMS	Suppliers scheduled to acquire certification	<ul style="list-style-type: none"> Explanation of ISO requirements Discussion of case studies
Seminars on improving EMS	Suppliers seeking to meet standards created by Toyota Industries	<ul style="list-style-type: none"> Explanation of ISO requirements On-site guidance
Workshops on environmental regulations	Major suppliers	<ul style="list-style-type: none"> Explanation of environmental regulations Discussion of regulatory trends

On-site Inspections of Major Suppliers

Toyota Industries conducts on-site inspections of its major suppliers, with a strong emphasis on monitoring the state of regulatory compliance and chemical substance management, and on reducing any environmental risks caused by the suppliers. Should the company identify an area in need of improvement, Toyota Industries then provides the appropriate guidance based on its own experience. Suppliers are then



Seminar on Improving EMS

re-inspected as a means of strict prevention against environmental risks.