II. Launch of Fourth Environmental Action Plan

Promoting Activities to Lessen Environmental Impact of Both Products and Production in Japan and Overseas

In its three previous Environmental Action Plans, Toyota Industries Corporation has established targets, to be achieved over several years, relating to environmental issues such as curbing global warming and reducing the emission of substances of concern. Recognising, however, that environmental issues have escalated in recent years and that the global expansion of the Toyota Industries Group's business activities has increased its potential for a greater impact on the environment, we believe that we must redouble our environmental efforts. In October 2005, we announced the Toyota Industries Group Fourth Environmental Action Plan (FY 2007-FY 2011). In this report, we have outlined the essence of the new Action Plan. The Plan itself can be found on pages 68-69.

Targets for Both Products and Production

Targets for the Entire Group From FY 2007-FY 2011

Implementation of the Kyoto Protocol and Reinforcement of Measures to Help Curb Global Warming

Of all the major environmental issues faced by the world, global warming, which is caused by emissions of carbon dioxide and other greenhouse gases in the use of energy, is one of the most serious.

The Intergovernmental Panel on Climate Change (IPCC) has made dire predictions about the critical situation the world faces. It forecasts that, if the average temperature of the Earth rises to 2-3ºC higher than that of the time of the Industrial Revolution (1870s), 50-120 million more people will face danger of starvation and three billion people will be at risk of not having enough water. The Earth's average temperature is believed to have already risen by 0.6ºC in the 100 years of the 20th century, and the general assessment around the world is that we are running out of time.

As much of the emissions of greenhouse gases such as carbon dioxide come from industrial activities, there is a great demand on industry to take positive action to achieve radical results in areas such as energy conservation and conversion. To fulfil its corporate social responsibility as a manufacturer, Toyota Industries will contribute to the curbing of global warming by further strengthening its efforts in energy conservation and the reduction of greenhouse gas emissions in product development and production . We will also work on the development of new products and technologies that will greatly reduce our impact on the environment.

Balancing Environmental Protection with Economic Activities

There is a growing sense of crisis among the people of the world about, not only global warming, but also other environmental issues, such as the depletion of resources and energy and environmental pollution. This sense of crisis is gradually becoming firmly entrenched throughout the whole of society.

Given these growing concerns, Toyota Industries sees environmental protection as a management priority and has established its Environmental Action Plans to outline its intentions in this area. In the Third Environmental Action Plan, which ran from fiscal year 2002 to 2006, we concentrated our efforts on the introduction of equipment that promoted environmental protection and on energy conversion. In achieving the targets of the five-year plan, we also succeeded in reducing our consumption of resources and energy costs.

Under our current mid-term business plan, we are working towards a target of more than two trillion yen in sales revenue for fiscal year 2011. Revenue in fiscal year 2006 totalled 1.5 trillion yen. Accordingly, reaching this mid-term business plan target means increasing our revenue by 30% over five years. If environmental protection measures stayed at their current level, as our sales increased, our environmental impact would also increase proportionately. It was for this reason that we compiled the Fourth Environmental Action Plan, which contains even more stringent targets than previous plans. The main emphasis of the new action plan is the concept of balancing environmental protection with economic activities.

The development and provision of environmentally-friendly

Key Points of the Fourth Environmental Action Plan

Curbing Global Warming
Strengthen the development and sale of environmentally friendly products to promote environmental action at the product use stage of the product life cycle, when the impact on the environment is greatest.

Reducing Greenhouse Gas Emissions
Actively promote countermeasures to global warming, the most serious of the world's environmental issues.

Improving Resource Productivity
Promote the reduction of resource wastage, keeping in mind soaring raw materials costs caused by resource and energy problems.

Reducing Environmental Risk Factors
Reduce environmental risks by enhancing management of chemical substances and curtailing emissions of substances of concern.

Global Environmental Management
Keep in mind that, as production by Toyota Industries Group companies increases, the Group's overall impact on the environment rises. Strengthen consolidated environmental management, giving priority to curbing global warming, increasing resource productivity and the reduction of environmental risk factors.

products will lead to increased sales, while reduced consumption of resources and energy will also result in improved profits. By strengthening environmental protection measures, we fulfil our social responsibilities and in turn have a favourable impact on our business.

It is the belief of the Toyota Industries Group that, by actively contributing to environmental protection in the areas of products and production, more customers will support our products. The result will be less impact on the global environment and, in turn, a contribution to the realization of a sustainable society.

Reducing the Environmental Impact of our Products

Stringent Prior Assessment of Potential for Reducing Environmental Impact

Development of Products that Help Curb Global Warming

Taking action to lessen the environmental impact of our products themselves has become increasingly important in our efforts to help curb global warming. This is particularly true for Toyota Industries, many of whose products have long life spans, such as ten years for automobiles and automobile-related components, fifteen years for lift trucks and twenty years or more for textile machinery.

To take the example of lift trucks, more than 80% of their environmental impact over their entire life cycle comes from CO_2 emissions from the use of oil (fuel) in the product use stage of that life cycle. We must, therefore, make even stronger efforts in product development to minimize our products' environmental impact during the product use stage. The development of next-generation lift trucks, fitted with fuel cell systems is one such effort currently being pursued.

With this in mind, Toyota Industries has implemented Life Cycle Assessment (LCA) programs in which the environmental impact of a product throughout its entire life cycle is assessed at the initial stages of development and design. This has formed the basis of our Design-for-Environment (DfE) programs. To make these programs even more effective, we have introduced a new concept of "environmental efficiency" as part of the Fourth Environmental Action Plan.

The concept of environmental efficiency utilizes a ratio of the value of a product, as determined in terms of its function and life expectancy, compared to the product's total environmental impact throughout its life cycle. The lower the environmental impact and the higher the product value, the better its environmental efficiency.

We believe that the development of these environmental efficiency indicators will allow us to determine comprehensively and objectively how far products developed in the future improve over the standard products of the past (that is, how much more environmentally efficient they will be).

Toyota Industries will use this concept of environmental efficiency to develop products that help to curb global warming.

Topics

Materials Handling Equipment Business

Development of Fuel-Cell Lift Truck that is Both Environmentally Friendly and Highly Efficient

Prototype Exhibited at International Trade Fair in Germany in 2005

Finding maximum fuel efficiency is a vital element in the development of lift trucks. Toyota Industries is currently enjoying strong sales and production volumes are growing. We believe that simply improving conventional systems to improve fuel efficiency will not be enough to achieve significant reductions in CO_2 emissions.

In December 2004, in collaboration with Toyota Motor Corporation, Toyota Industries began the development of a fuel-cell hybrid system for use in lift trucks. In October 2005, the Toyota FCHV-F (prototype) fuel-cell lift truck was exhibited at CeMAT2005, one of the world's largest international logistics trade fair, in Hanover, Germany, at which the forklift (which we view as an embodiment of the technological know-how of the Toyota Group) received a great deal of attention among fair visitors.

We believe that the most striking feature of this fuel-cell hybrid system is its environmental performance. Because the FCHV-F is fuelled by high-pressure hydrogen, its only emission is water. Also, whereas conventional electric lift trucks had long recharging times, necessitating the extra work of replacement with a spare battery, the fuel-cell lift truck requires only a few minutes to refuel with hydrogen, which we believe increases operational efficiency. We expect demand for this new model to be particularly high in North America, where many extremely large logistics centers operate lift trucks continuously 24 hours a day.

With its low environmental impact, fuel cell technology has enormous potential as a power source of the future for use in a wide range of business areas, including household appliances, automobiles and industrial equipment. Toyota Industries will continue its verification testing of this new system and perfect the fuel-cell lift truck.

Prototype Fuel-Cell Lift Truck exhibited at CeMAT2005 in October 2005

Extending Product Life Spans and Promoting 3R

In our efforts to achieve effective use of finite resources, Toyota Industries is pursuing product development and design that will achieve longer product life spans and incorporate the "3R" concept of "Reduce" (reducing waste by making products smaller and lighter), "Reuse" (reusing spent products and parts) and "Recycle".

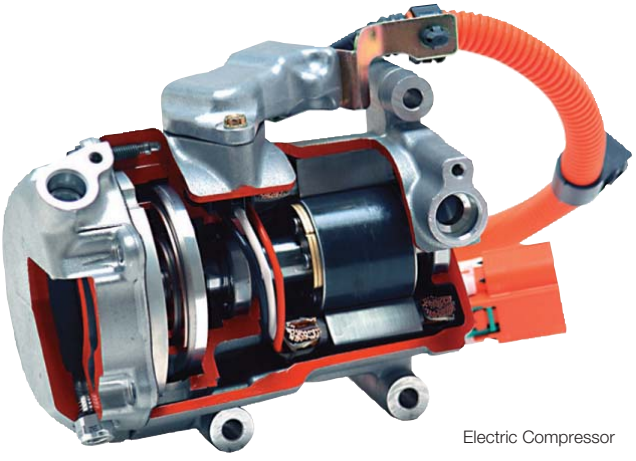
As described above, Toyota Industries' products have particularly long life spans from production to disposal. Given that our products have such long life spans, during the product design and development stage, we look at the situation in the product use and product disposal stages of the product life cycle, and pursue safety and efficiency of maintenance, disassembly and other tasks, as well as ease of recycling and disposal.

To promote 3R design even further, we compiled new 3R Design Guidelines to replace the previous guidelines for recyclable design, incorporating the added concepts of reduce and reuse. Based on these new guidelines, we will further increase the efficiency of our design for the environment.

Preventing Risks to the Environment from Our Products

Unless substances of concern contained in products themselves are disposed of appropriately at the end of the products' life, they have the potential to harm the environment or to be detrimental to human health. Toyota Industries, therefore, has long endeavoured to abolish or reduce the use of such substances.

In the area of automotive products (car air-conditioning compressors, automobiles, engines, automotive electronics), we have, in principle, banned the use of the four substances (lead, mercury, cadmium and hexavalent chromium) whose use has been restricted by the European Union's directive on end-of-life vehicles (ELV), and we expect to strengthen our measures to abolish our use of these substances throughout the world in the future. Although lift trucks, textile machinery and other products are not subject to the EU's ELV directive, we expect to handle them in the same manner as those products that do come under the directive.



Electric Compressor

Reducing the Environmental Impact of Production Activities

Three-Pronged Approach of Addressing Global Warming, Increasing Resource Productivity and Reducing Environmental Risk

Building World-Class Energy-Conserving Production Lines

Toyota Industries has embarked on a range of measures to conserve energy in its production activities, with a focus on the energy supply side, in an effort to reduce energy-related emissions of CO_2. These measures include the introduction of co-generation systems and conversion to fuels with low CO_2 emissions.

We have already achieved the target established in our Third Environmental Action Plan of a 5% reduction in our total CO_2 emissions compared to fiscal year 1991 levels. As our production volumes continue to increase, however, our CO_2 emissions will also rise unless we undertake further reduction measures. To reduce our energy consumption levels even further, it is essential that we implement energy conservation measures in the areas that use the most energy, namely on the manufacturing lines.

In the Fourth Environmental Action Plan, we have set a global target of curbing the rise in our CO_2 emissions and improving our environmental efficiency by 10% compared to fiscal year 2004 levels. As a priority measure to achieve this target, new manufacturing lines must consume 30% less energy than existing facilities. In this way, we plan to build world-class energy-conserving production lines. We also expect to put energy conservation management into full swing in all of our consolidated subsidiaries in Japan and around the world. In the area of global warming as well, we will attempt to produce a collection of case studies on energy-conservation activities, and roll out successful measures to our affiliates.We will also attempt to provide support to our production subsidiaries in the area of energy conservation through energy diagnosticsand other measures, because of their particularly high levels of energy consumption.

From the Dual Perspectives of Resource Productivity and Economic Viability

Resource depletion is another grave environmental issue. In order to maximise the effective utilization of finite resources, Toyota Industries has pursued a campaign to achieve zero landfill waste (non-recyclable waste that is disposed of in landfill). Through comprehensive waste separation and recycling measures, we achieved our goal of zero landfill waste in fiscal year 2005. We expect to compile the knowledge and expertise that we have accumulated and use it to spread the "zero landfill" message to all of our production centers around the world.Soaring prices of metals and energy caused by burgeoning global demand in recent years have had a major impact on the market economy. Toyota Industries has long pursued the effective use of waste from the perspective of

fulfilling our responsibilities. In the face of these changes in the market, however, maximization of the use of finite resources and loss reduction have also become increasingly important from the perspective of cost reductions. Now more than ever Japan heeds to renew its awareness of its unique *"mottainai"* sprit and culture, and endeavor to improve the productivity of its natural resources.

Toward this end, Toyota Industries has redoubled its efforts into resource cycle approaches, such as minimising the disposal of raw materials (increasing yield), repeated use (in-house re-use) and avoiding defective products. We believe this will reduce wasted raw materials costs and, consequently, contribute to the improvement of profit margins. Because we believe that strengthening environmental actions such as these will lead directly to enhanced corporate competitiveness, we will work exhaustively to implement such measures.

Eco-Factory Activities

The pollution of the regional environment has the potential to impact immensely on the living environment of local residents. We believe it is our corporate social responsibility to prevent such pollution at all costs.

Having experienced a case of soil contamination ourselves in the past, Toyota Industries is keenly aware of how difficult it is to fully purify a polluted environment, and how important it is to prevent such pollution in the first place. Furthermore, the laws on soil and groundwater contamination have been reinforced, including the enactment of the Soil Contamination Countermeasures Law in May 2002 and the amendment of the Water Pollution Control Law in April 2005.

Toyota Industries' Fourth Environmental Action Plan calls for the establishment of an Environmental Risk Assessment System, in which we expect risk factors such as substances of concern and the risk of soil pollution, to be dealt with from the initial planning stages of facilities and production line construction. On that basis, we will attempt to promote "eco-factory" activities that incorporate environmental measures at the project planning stage.

Eco-factory activities refer to the thorough consideration of the environment in all aspects of factory construction, from land acquisition through to the construction of manufacturing lines and factory buildings. Process and equipment design that does not discharge substances of concern, building design that cuts down on energy requirements for lighting and air-conditioning, and reduction of CO_2 emissions through the use of natural energy sources, such as solar and wind power generation are all examples of the kinds of innovations and new technologies that we will explore and hope to introduce in our efforts to build environmentally-friendly factories.

In fiscal year 2007, we have prepared company standards for the construction of eco-factories and will pursue this kind of construction whenever a new factory is planned (including large-scale expansion or renovation of manufacturing lines), both in Japan and overseas.

TOPICS

Compressor Business

Eco-Factory Case Study 1: Obu Plant

Toyota Industries Obu Plant, in Obu City, Aichi Prefecture, underwent a complete overhaul of its manufacturing facilities in 2002. On the themes of "energy conservation", "long life", "resource conservation" and "co-existence with nature", we believe it was reborn into a highly environmentally friendly factory with solar power generation, roof-top greenification, reduced industrial waste, effective water use and many other environmental features.

Roof-top greenification of Obu Plant

Eco-Factory Case Study 2: Higashiura Plant

Built in line with the concept of "using natural energy and attaining harmony with the surrounding environment", the Higashiura Plant, in Higashiura-cho, Chita-gun, Aichi Prefecture, was commissioned in July 2002. The goal during construction was to reduce electricity consumption of the manufacturing lines to 20% less than that of conventional factories. To achieve this, clean energy systems and energy conservation systems, including solar and wind power generation, co-generation systems and an ice-storage air-conditioning heat transfer system were adopted. Importance was placed on communication with local residents and, as a result, we believe the new factory has blended in well with the local community as an eco-factory that co-exists with nature and the community.

Wind-powered and solar-powered electricity generation has been introduced at the Higashiura Plant