Environmental Management

Reduction CO2 Emissions from Logistics Operations

Toyota Industries recognizes that its transport activities have an impact on the environment as a result of CO2 emissions and other factors. The company’s Third Environmental Action Plan sets a medium range goal of achieving CO2 emissions equivalent to FY 1990 levels by FY 2005. The company’s major objectives are to increase the efficiency of its existing transportation activities and switch to alternative transportation methods.

Medium Range Goals and Major Objectives

Toyota Industries established a short term goal of reducing its total CO2 emissions by 10% compared with the previous fiscal year. In FY 2002, the company successfully limited its total CO2 emissions to 6.7 kt-CO2. Toyota Industries achieved this short term goal by improving its load efficiency and rescheduling its truck shipments to reduce the overall number of trips required.

FY 2002 Achievements

For FY 2002, Toyota Industries established a medium range goal of reducing its total CO2 emissions by 10% compared with the previous fiscal year. In FY 2002, the company successfully reduced its total CO2 emissions to 6.7 kt-CO2.

Case Study A Reducing Truck Shipments

Toyota Industries’ Takahama Plant ships its completed forklift trucks to its regional dealers by truck and to its long-distance dealers by truck or ship. Previously, the Takahama Plant had been using separate truck shipments for each dealer. In FY 2001, the plant established fixed truck routes so that forklift truck shipments could be delivered to several dealers at one time. This helped to reduce the plant’s overall truck shipments.

In FY 2002, the Takahama Plant created additional route variations, bringing the total of fixed truck routes to around 50. Consequently, the plant was able to reduce its CO2 emissions by 241 t-CO2 in FY 2002.

Case Study B Utilizing Alternative Transportation Methods

In February 2003, Toyota Industries began switching to alternative means of transport for its long distance forklift shipments in Japan. This pilot program involved switching from ship to rail transport over an area that currently stretches from Aichi Prefecture to Kyushu (over 2,500 km). Toyota Industries expects that this pilot program will reduce its CO2 emissions by 96 kg-CO2 per delivery and plans to switch to rail transport for future shipments to Hokkaido.

Case Study C Sharing Truck Shipments to Toyota Motor Corporation

Toyota Industries is attempting to optimize the efficiency of its deliveries to Toyota Motor Corporation’s Takaoka Plant. Previously, Hekinan Plant had been scheduling its own independent deliveries to the Takaoka Plant. In November 2002, the Hekinan Plant began delivering its combined shipments to the Takaoka Plant that included cargo from other companies. Consequently, the frequency of deliveries to the Takaoka Plant was reduced, which led to a concrete reduction in CO2 emissions.

The Hekinan Plant is also in the process of similarly optimizing its deliveries to other plants owned by Toyota Motor Corporation. These changes are expected to result in a further reduction of 1.9 t-CO2 in CO2 emissions per month.

FY 2002 Measures

<table>
<thead>
<tr>
<th>Description</th>
<th>Measure</th>
<th>Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve transportation efficiency</td>
<td>+ Improve loading efficiency + Improve transportation routes</td>
<td>All plants</td>
</tr>
<tr>
<td>Change transportation method</td>
<td>Switch from ship to rail transport</td>
<td>Takahama Plant</td>
</tr>
</tbody>
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CO2 Emissions from Logistics Operations

- Hekinan
- Takahama
- Nagakusa
- Obu
- Kyowa
- Kariya

The Third Environmental Action Plan sets a goal of CO2 emissions of 8.2 kt-CO2 by FY 2005.

Future Activities

In FY 2003, Toyota Industries will further reduce its CO2 emissions by optimizing its transport activities through the initiatives shown above and by switching to alternative transportation methods.