



TenStep Supplemental Paper

2 June 2004

DFE - Packaging and Transportation

Design for Environment emphasizes reducing packaging for marketing and transport purposes, resulting in less waste, less energy for transport, fewer emissions and greater savings. By reducing the amount and weight of packaging, your company can save on resources and costs. It also ensures that products are transported from the producer to the end-user along the entire distribution chain in the most efficient manner possible. The factors involved in such optimization include:

- Packaging
- Mode Of Transport
- Mode Of Storage/Handling
- Logistics

Some ideas for applying this strategy are:

- Use an attractive but lean design to attract customers.
- In case the products are to be transported or packaged in bulk, consider re-usable materials in combination with a return system and, if possible, between the retailer and end-user.
- For packaging that cannot be reclaimed, recyclable materials may be used, and in cases where the packaging is returned, more durable materials can be used.
- Reduce volume by using a modular structure.
- Implement a supply-chain-wide packaging system to reduce waste at all levels.

The environmental impact of product transportation comes primarily from energy consumed and air pollutant emissions. Choosing an energy-efficient mode of transportation can directly affect your bottom line, as it will make your company less vulnerable to energy price fluctuations.

Before transportation, consider the following:

- Price
- Volume
- Reliability
- Time to delivery
- Distance to customer
- Environmental impact



TenStep Supplemental Paper

Understanding suppliers' modes of transportation for materials and components can help bring down costs if energy-efficient transportation is used throughout the supply, production and distribution chain.

Tips for fuel-efficient transportation include:

- Fuel-efficient engines with lower maintenance and operating costs can be used.
- Regular maintenance reduces emissions.
- Alternative fuels such as propane and natural gas help reduce energy emissions, creating a more pollution-free environment.
- Computers in transport vehicles help reduce fuel waste by controlling idling speed and setting speed limits.
- A vehicle refueling service that refuels vehicles on the road rather than taking them to gas stations can reduce fuel costs and enhance fleet efficiency.