

Survey of Selected Companies on Green Purchasing in Malaysia

Overview

Green Purchasing is very new concept in Malaysia. There are no green purchasing laws or regulations in Malaysia however other relevant laws and regulations are enacted. Malaysia, like many developing countries, in the early days of abundant resources and minimal development pressures, little attention was paid to growing environment protection and conversation. However, since the enactment of the Environmental Quality Act in 1974, and the subsequent establishment of the Department of Environment, environmental management in Malaysia began to be more formalized and structured. Department of Environment Malaysia (DOE), under the Ministry of Science, Technology & Environment, Malaysia was formed to administer and enforce, amongst other environmental laws and regulations, the Environmental Quality Act, 1974 (Amendments 1985, 1996) and Section IV of the Economic Exclusive Zone Act, 1984.

NSK (M) SDN. BHD.

Nature of Business: Bearing Manufacturer
Market: all over the world
Major Products: Bearings, Precision Machine Parts and Automotive Parts.

Introduction

NSK (M) Sdn. Bhd. (NSK Malaysia), a subsidiary of NSK Ltd., Japan (NSK Japan), was established in 1993, to promote sales of NSK Products in Malaysia. NSK Japan was established in 1916. Over its long history, NSK Japan has developed various types of bearings and supplied them to customers all over the world, contributing greatly along the way to the advancement of industries and machinery. At present, NSK Japan is the largest bearing manufacturer in Japan and the second largest in the world. From early on, NSK Japan has utilized its expertise accumulated through bearing engineering and production to expand into automotive components, precision machinery and electronic components. Along with product diversification, NSK Japan has expanded its production capacity to include 17 plants in Japan and a global sales and manufacturing network. Starting with an American sales and distribution base established in 1962 in Ann Arbor, Michigan, the company has expanded its network to cover 25 countries in North and South American, Europe, Asia, Oceania and Africa. In 1972, NSK Japan established a production foothold in a suburb of Sao Paulo, Brazil. Today, NSK Japan has 48 manufacturing plants operating in the United States, Europe and Asian countries other than Japan.

Green Procurement in NSK Ltd. Japan

NSK Japan has also taken actions to protect the environment beyond its corporate operations by encouraging their suppliers to take environmentally friendly actions. To this end, they published the Green Procurement Standards and NSK Chemical Substance Control List, and distributed them to their 181 suppliers (93% of their total purchases). In order to promote green purchasing of general goods such as paper and office supplies, they published the Green Purchasing Guidelines and started to apply these guidelines internally.

Policies and Activities

Green procurement (raw materials, parts, material resources, etc.)

- Reduce the environmental impact of our use of raw materials, parts, and material resources
- Promote controls for hazardous chemical substances

- Encourage suppliers to implement voluntary environmental measures

Green purchasing (general goods)

- Reduce the environmental impact of general purchases
- Raise employees' awareness of environmental issues

Green Procurement of Raw Materials, Parts and Material Resources

NSK Japan approaches to the conservation of the environment has been recorded in their Green Procurement Standards and NSK Chemical Substance Control List, and distributed to 181 suppliers. In the Green Procurement Standards manual, suppliers to NSK Japan are advised to evaluate their activities for the environment using three points scale. This approach encourages voluntary activities for building an environmental management system by grading activities in terms of improvement needed. For procurement, they have published requirements regarding energy and resource conservation, recyclability, and the management of hazardous chemical substances, as well as concerns related to packing and packaging. These requirements efficiently reduce the environmental impact of materials supplied to their company.

Green Purchasing of General Goods

In order to promote green purchasing of paper, office supplies, OA equipment, and vehicles throughout the entire company, they published NSK Green Purchasing Guidelines. The document has been posted on their intranet, and all staff is encouraged to switch to products that meet the standards proposed in these guidelines. By advertising through a medium, such as internal newsletters and ECO news, NSK management has endeavored to raise the environmental awareness of its employees. As a result, 1,113 computers that were scheduled to be upgraded were replaced with energy-saving computers in accordance with the standards, further reducing electric power consumption. In addition, the sales and manufacturing divisions purchased 7 low-emission vehicles. At the headquarters division, paper for photocopying and printing as well as for bookkeeping were replaced with 100% recycled paper with 70% degree of brightness. Furthermore, 62,120 NSK diaries distributed to their employees and customers, were made from 100% recycled paper. Other printed items, such as the Green Procurement Standards and NSK Chemical Substance Control List as well as a periodical technology newsletter, the "NSK Technical Journal," were printed using recycled paper made of 100% used paper, and soy ink.

Environmental Practices in NSK (M) Sdn. Bhd.

The companies have a varied environmental policies and practices. NSK Japan established the Global Environmental Protection Committee in 1993 and since then NSK has engaged in the development of environmentally friendly products as well as the reduction of energy consumption, waste management and the reduction of hazardous substances at each manufacturing site, including in Malaysia. NSK Malaysia also practiced some form of environmental policies with their headquarters in Japan insisting on an environmental policy e.g. Green Purchasing policies for their products which are being supplied to various multi-nationals like Sony. They possess ISO 14001 certification though they do not have any kind of eco-labeling as yet (UPM. 1999).

According to the OSH officer, NSK Malaysia, they have not begun with green procurement yet. But they have been practicing to reduce the waste. In terms of main waste for reuse and recycling, this is limited to the cutting oil used in the machines. In the case of their main input, it involves steel or pellet which belong to the customers. The wastes in the form of chips are sent back to the customers for recycling. Other recycled materials are the normal office materials such as stationary and office supplies. This is only small thing, but this is also the beginning of the step for green purchasing.

NSK Group of Companies has taken note of the growing environmental concerns and a

comprehensive mid-term goal was outlined in the year 2000. Under these voluntary action plans, the companies enact and strive to achieve environmental protection activities throughout the entire company. The companies have also introduced LCA activities and successfully reduce negative impact on the environment including the waste management goals.

In terms of green purchasing and green procurement, the midterm goals were two-folds:

- 1) to adopt green procurement standards; and
- 2) to adopt guidelines for green purchasing.

In these efforts, the companies had compiled standards and adopted them for 93% (in terms of total volume of purchase made) of vendor companies. In green purchasing, guidelines for papers, office equipment, stationary and vehicles were established. On the other hand, they have minimum related information utilizing green purchasing such as eco-labeling criteria or guidelines, products database and other parameters.

MSP INDUSTRIES SDN. BHD.

MSP Industries is related to NSK Micro Precision Co. Ltd., in Malaysia, which is also a subsidiary of NSK Ltd., Japan. MSP Industries Sdn. Bhd. was established in 1995 with fifty-one employees. Their annual sales are RM 14 million in 2001. MSP Industries is a manufacturer of miniature ball bearing parts. MSP has been processing in full pursuit of high precision, high cleanliness, and the metal stamping, plastic injection moulding and mould processing are their specialties. Since the beginning of operations, MSP was very much aware of environmental issues and safety measures. MSP has acquired ISO 14001 certification in 1996 and has been continuously promoting improvement activities in an attempt to reduce environmental impact. One of the approaches in green purchasing is that MSDS comes to hand at the time of an estimate or product investigation.

- 1) Check whether there is any burden to environment, or there is nothing (Consideration of a substitute)
- 2) Check the management approach and the method of handling
- 3) Check and train the solution when spilling
- 4) Check the discarding process

It corresponds to the earth as much as possible so that a toxic substance may not be discarded. Green purchasing in MSP is in the process of practicing and might be a long-term process to meet the requirements for specification of Green Purchasing Guidelines in the NSK group. However MSP is willing to promote the activity.

Barriers

It was noted that not all of the suppliers to NSK Group, unlikely MSP Industries Sdn. Bhd. do not have ISO 14000 certification and do not have a policy of environmental conservation policies either. Their purchasing of final products, parts and materials do not take into account of life cycle assessment. It was told that there are at present no legal requirements for these green practices in Malaysia. However, the following company has acquired ISO 14000 and been trying to make efforts to implement .green purchasing concept.

REM CORPORATION SDN. BHD.

Introduction

REM Corporation Sdn. Bhd. was established in 1983 as a Resource Environmental Management Company as a small and medium enterprise (SME) with total staff of twelve persons. At the early time of their business activities were earthwork, road, drainage, sewerage, construction, waste paper recycling, precious metal recovery, hazardous wastes and environmental pollution consultancy. During the later part of 1980s, the company diversified into fruit wine and brandy production thus, became the first and only company to be awarded a manufacturing license by the Custom and Excise Department of the Ministry of Finance to produce wine using the local starfruit as its raw material. The company produced perhaps the first Starfruit Wine (**Rambola**) and Starfruit Brandy (**Stagnac**) in the world. In the later part of 1999, it was granted the Good Manufacturing Practice (**GMP**) license by the Ministry of Health to produce traditional herbal medicine.

REM and the environment

REM is sensitive to the environmental aspect of its business due to the background of its founder. The founder of REM is a veteran environmental scientist with a doctorate in environmental health. The early business activities were in the environmental protection realm such as consultancy in environmental pollution and resource recovery. REM recently began a new business of manufacturing of starfruit wine and brandy to prevent mass disposal of starfruits. During a glut of starfruits (*Averrhoa carambola L.*) in Malaysia, many farmers discarded them in order to reduce their losses. Confronted with the fluctuation of the growing seasons, the supply and demand of the markets, REM Corporation decided to make history by converting the good quality off grade fruits into fruit wine and fruit brandy. REM's customers are wholesalers, retailers, night spots in Malaysia, Singapore and Japan.

REM does not have written environmental nor green purchasing policy. Although it has the business philosophy of keeping their production clean with minimum wastage, and the staff can work in a safe and comfortable environment, they have not been practicing green purchasing yet. However, this concept of the use of starfruits is one of activities of green purchasing. Since majority of their customers are Japanese companies, the environmental aspect, such as organic, may be able to be widely promoted by appealing to a customer and conversely a customer may ask for the environmental consideration or organic in the process of production in the future.

REM as a purchaser of environmentally less damaging good and services

The most critical issues affecting REM's purchasing decisions are quality, consistency and reasonable price structure. Currently, environment aspect of the product does not critically affect its purchasing decision; REM only asks for the standard product specification. REM will be compelled to ask for environmental-related information when the quality is below acceptable standards. REM does not consider genetically-modified organism as a critical issue in the winery industry. However, REM would consider these products as priority if it were to incorporate green purchasing; concentrates, fruit quality, herb quality (basically the raw material for production).

REM as a producer of environmentally less damaging good and services

REM does not reuse their bottles due to health safety reasons. However, there are used bottles collectors who sell them to recycling plant. REM's used paper materials are sold to waste contractors who send the waste papers to recycling plant. The waste pulp from their extracted starfruits is sent for land filling. REM does not use plastic containers for their packaging. The owner thinks that they are practicing or not practicing green purchasing consciously or unconsciously in accordance to its definition. This is still a new concept to them. The practice of green purchasing is a long term

process which requires well structured framework of guidelines and policies for different industries and countries.

REM as a supplier of environmentally less damaging good and services

The most critical aspects of the beverage industry are chemical residues and microbial contamination. REM has taken action to minimize environmental impacts of your operation by reducing wastage and reusing by-products and rejects (for example odd-sized fruits). The actions taken are due to legal requirements, customer demand and it is cost effective to do so. REM does not disclose the environmental measures, for example on the labels, it has taken on its products because it is not required at the moment.

LEP PRECISION COMPONENTS SDN. BHD.

Introduction

LEP Precision Components Sdn. Bhd. (LPC) is established in 2000 as a SME of die-casting and electroplating. It consists of twenty-five people and has a capital of RM 100,000 and in terms of sales, 1.5 million in 2001. LPC produces completed consumer and industrial products as well as intermediate parts to other companies. Some of the company's products include furniture fittings, food service equipment components, architecture handles and fishing reel components. The products are electroplated with copper, nickel or zinc. A certain volume of its products is exported to Singapore as well as contracted work for a Japanese company, Shimano Inc. If the company face problems in its waste treatment and pollution control such as the treatment of its polluted wastewater, it can result in the destruction of environmental balances and pose health hazard to both human and animals dependent on these water bodies.

Green Purchasing with Shimano Inc. Japan

LPC produces fishing reel components as the contracted work for Shimano Inc., Japan. Shimano has written environmental philosophy, principle and guidelines. Shimano does not have specific green purchasing standard or green procurement guideline, however they have an environmental policy. In a part of the policy, they state that to perform the product development, the technical development and the material procurement which mitigate environmental load as apart in the environmental guideline. Once Shimano will actively promote and practice green purchasing, they would have the potential for tremendous impact on their related companies and correspondent firms, including LPC. From the viewpoint of the conditions, LPC would also eventually promote and implement the concept of green procurement and purchasing and in the future.

Green Purchasing & Other Information at LPC

It is the company's ultimate objective to be certified ISO 14001 in the near future. In addition, the management endeavors to monitor and control wastes and wastewater discharge as well as the solid or hazardous waste disposal. In this regard, the company would like to know more on green purchasing or green procurement network and how this will ensure a better environmental protection for the benefits of the community at large. At the moment, the company has no knowledge on this subject.

The management also realizes there could be room for improvement in term of energy conservation and other process flows. Since there is no monitoring on the air emission at the moment, it may be one area for the company to upgrade the air emission system. In addition, the management would like to improve the quantity of chemical usage and chemical substitutes, improve the drainage system on the production line where wastewater is currently being drained and discharged. The company is also interested to learn more on the possibility of switching over to new technology and practices especially in lowering or eliminating the use of cyanide compounds.