

PREVENTION OF POLLUTION AT SOURCE ENVIRONMENT AND THE CONSUMER

Polychronis Polychroniadis

General Manager

PERAN Environment and Development SA

I would like to thank Dr. Vlavianos-Arvanitis for giving the opportunity to PERAN to present the experiences of its effective endeavor in recycling aluminum. I would like to say, as we have known each other for many years, that apart from her wisdom and knowledge we all have much to learn from her belief in her aims, her passion for results and, of course, her enthusiasm and tolerance.

PERAN is a private company with a particularly impressive title, as it combines two very important Greek words, environment and development. The theme of this presentation has been changed slightly so as to include technologically advanced practices which are effective and friendly, not only to the environment, but also to consumers. These are solutions which have already been put into practice by PERAN and which it proposes should be adopted in this country generally.

Many hundreds of thousands of tons of valuable paper are consumed all over the world every year in the printing of articles and studies on the protection of the environment. But those which can be implemented are very much fewer, and even fewer are those suggestions which are really friendly towards customers, big or small. The vision at PERAN is always to be in the vanguard with programs and solutions which contribute substantially to the protection of the environment. They are those which promote and reinforce the need for investment in technology, but which mainly create a positive attitude, and consciously active participation of the public, in reducing pollution and saving resources for a cleaner Greece.

The aluminum recycling scheme Lucky Can, which this company has run since the beginning of 1992, best expresses what is meant by solutions which are friendly to both the environment and the consumer. Many people must have either seen, read about in the press, or even used the Lucky Can machines for recycling aluminum. These machines, about the size of a domestic refrigerator, combine the organized and safe collection of about 2,000 cans, which are compressed by the machine itself to 1/20 of their original volume, with pleasure through the games and the prizes provided by the built-in computer.

Forty-seven machines are already in use in Greece and Cyprus; they are permanent or moveable installations at supermarkets, schools, beaches, public places, army camps, children's camps, exhibitions and as a part of special schemes. Every month they collect approximately 1,000,000 cans, something less than 5% of the total number of cans used in the country. The cans are then taken to their rightful receivers, the smelting plants of Athens and Thessaloniki. Besides relieving their usual receivers, the municipalities and dumps, their collection saves the energy consumed in converting bauxite to aluminum. This is an energy equivalent, capable of lighting 2,000 households for one hour.

The acceptance of Lucky Can by the public and the press has been positive from the very outset. This is because the public saw that Lucky Can is a well-organized system. The latter has been proved by a recent survey carried out by a research company. It is a system that contributes to recycling and operates in a technologically advanced way by combining games and prize incentives offered by many companies, who promote their own name and their products at the same time. As the survey showed, people from every social class, educated to a greater or lesser extent, young and old, have grown tired of seeing only the ugly side of the problems. Unfortunately there is nothing pleasant about rubbish: either in the odor, pollution, volume, weight or the headache of its collection, transportation and burying, burning, separation or pulping. However, the soft drink or beer can is attractive to consumers with its customary pleasant colors and slogans designed by marketing experts. It is equally pleasant for the consumer if, after use, it does not get mixed up with other organic or inorganic domestic rubbish, but instead is kept and taken by the user to Lucky Can. The user knows that in this way he is saving energy, reducing the volume of rubbish collection and, at the same time he is engaging in a pleasant game which offers him large or small prizes.

As a private business PERAN needs income, needs profits. It wants its income to come from the companies which entrust it with their promotion as sponsors of the program. After deducting administration costs, the rest of the income from the aluminum collected goes to welfare projects through the "environmental capital fund" that PERAN has initiated. The SOS Children's Village, the Ithaki project, the institution for children with special needs in Thessaloniki, the organization for the care of wild animals and birds in Aegina, as well as schools and other institutions which are supported from this capital.

A special scheme was organized in 1993 and will be repeated in 1994 for schools: it is a competition for recycling aluminum through Lucky Can with the participation of a great number of schools and a prize which is a week in Switzerland for the whole class. The aluminum collected exceeded 600,000 cans in two months, the duration of the scheme. In 1994 Lucky Can machines will be placed in more schools, basic training military units and municipalities. Already PERAN's pilot schemes in these areas have been a complete success, especially the schemes for

municipalities have many aspects and benefits. In particular, there is a smaller investment in equipment as fewer machines are needed to cover the area of a municipality. At the same time the municipal authorities have an income from the use of Lucky Can, through the promotion of companies which operate both inside and outside the area.

Lucky Can stands 100% inside the recycling effort. And recycling is the first step, after the systematic management of rubbish, towards avoiding pollution. The next two steps, with clearly greater effectiveness in avoiding pollution, are the reuse, or reduction, of packaging and, even better, the avoidance of unnecessary packaging. In many other European countries, such as Scandinavia which is used as a model of good quality of life, the reuse of bottles, both glass and plastic, has been incorporated into this way of life for many years now. For the three partners in this endeavor, i.e. the bottling companies, the supermarkets and the consumers, reuse must constitute a common provision and a primary duty. It is the choice of every individual whether to consume soft drinks or not, or to drink beer or wine. Cooperation must exist among all three partners after use, and this is best achieved by returning the bottles and reusing them. In many countries bottles are returned and refilled up to 20 times. In Greece exactly the same bottle as the ones used in Sweden, Denmark, Holland and other countries, is not returned even once. The easy solution operates; it is thrown away among the rubbish to burden the environment, the municipality and, in particular, everyone else who may not even want to drink soft drinks from plastic bottles. In Northern Europe, at the supermarkets, consumers have at their disposal friendly solutions for managing the returnable bottles, either glass or plastic.

But most important is the deposit system. In this country the same system only operates partially. It is a positive fact that all the bottles of different brands of beer in Greece can be returned to the supermarket in exchange for the deposit. The same applies to glass soft drink bottles, some bottled waters and drinks, and a few wines. The recycling of glass bottles does not seem to be as good a solution as it is for aluminum, since thousands of tons of bottles collected for recycling are still awaiting further processing. Plastic bottles do not need to be mentioned at all. Consumers, with a generally limited environmental education and consciousness, prefer cans and plastic bottles; the bottling companies and the supermarkets could have been warmer supporters of reuse. In this particular case, a brave decision is needed. However, it is encouraging that the public is slowly, but steadily, being alerted.

Even in this sector there are methods that are friendly to the consumer. PERAN has started to contribute to the reuse of bottles by making matters easier for supermarkets and consumers. It has already started to install in supermarkets machines which automatically recognize, at a rate of 60 per minute, every shape of bottle, plastic or glass, and then give a receipt for the deposit to be collected. From the outset of the new scheme at pilot supermarkets the results have been amazing. The system is especially user-friendly. Whether young or old, educated to a greater or lesser extent, consumers can realize the speed, movement, technology, modernization and the reliability of the receipt that the machine issues. Consumers applauded its implementation. It is characteristic that within one month, at the supermarket where the first pilot system was installed, the number of bottles returned doubled. Also positive were comments from the consumers; the modern Greek consumer wants friendly technology and trusts it when he finds it, simply because it is reliable.

Reuse might seem to be a nuisance for the Greek bottling companies. Why, however, is it not the same for their counterparts in Northern Europe? On the contrary, there it is seen as a very good opportunity for the promotion of the companies, as it is clearly friendly to the environment. Of course, PERAN is not the only company in the world that provides friendly, practical and effective environmental solutions to consumers. More and more companies, especially those producing consumer goods, are providing good examples of solutions which are friendly to the environment and the consumer. The old perception that packaging is biodegradable and, therefore does not burden the environment, although of course it is a burden for collection, is gradually being replaced by a desire for less packaging, and this is a positive step.

The conclusion of this presentation on the prevention of pollution is to try to draw a parallel between the Golden Rule that supports the modern perception of Total Quality, and the prevention of pollution. In any case, the prevention of pollution as well as the environment, has many things to learn from the implementation of Total Quality Management. To be specific, in Total Quality Management, the cost of a mistake is 1 unit if the fault is detected and corrected by the doer, 10 units if detected and corrected within the company, and 100 units, if detected by the consumer. In the prevention of pollution, the cost of rubbish administration is 1,000 units compared with 100 units, if recycling is systematically implemented, 10, if reuse is employed and 1 if unnecessary packaging is consciously reduced or avoided. It is worth striving, through practical solutions which are friendly to the consumer, for a better environment, for the saving of resources, for a cleaner Greece.

Polychronis Polychroniadis is the General Manager of both ELAN (Hellenic Developments S.A.), a venture capital company with activities in the food industry as well as in the field of efficient and practical environmental-protection applications, and PERAN Environment and Development S.A. He studied physics at the University of Athens. After the completion of his military service he joined Texaco Greek Petroleum Company and during his twenty-year career he held executive positions in human resources management, marketing, sales and exploitation and was actively involved with the Total Quality Initiative in the company. He has been a member of the Development Committee of the American Farm School since 1981, a specialization which he continues to develop as a Management Consultant, associated

with the American firm, Organizational Dynamics Inc.