

PWMI Newsletter

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Plastic Waste Management Institute
JAPAN

PWMI Celebrates 25th Anniversary

25th Anniversary

The Plastic Waste Management Institute (PWMI) was established in 1971. This marked the start of our activities for the promotion of timely and appropriate methods to treat plastic waste and to recover it in the form of resources that can be effectively utilized. These activities were extremely important in view of the circumstances at that time in which the spotlight was on society's problems in disposing the waste that had been created by economic growth, improvements in living standards, and other factors.

In those days, municipal governments throughout Japan faced the problem of damage done to incinerators by the high temperatures generated when

plastics were burned. A call for the banning of the use of disposable plastic containers was among the movements noted at an international exposition held in Osaka in the year before PWMI was established. The preparations for the development of systems for the treatment and disposal of plastic waste were also carried out at a meeting of the National Municipal Sanitation Conference and a resolution was made that requested restraint in the production of disposable plastic products until such systems were operational. PWMI has always been involved with these types of social problems and has aimed at the harmonious development of the petrochemical industry. Since its founding the Institute has worked consistently at the

Experimental facility in Funabashi City in Chiba Prefecture for recovering sorted plastic waste through a melting process



Facility in Koshigaya City for the experimental and specialized incineration of municipal plastic waste from sorted collections



In a joint research project on pyrolysis verification conducted by PWMI and Sanyo Electric Co., Ltd.,

this pyrolysis test plant for plastic waste was built in April of 1973. Plastic waste from sorted collections in Kusatsu City was treated here for a period of more than one year and the practicality of the pyrolytic technology was verified.



following tasks with energy and enthusiasm:

- (1) Research and development of technologies relating to the management and recycling of plastic waste;
- (2) Investigative activities to make possible an understanding of the actual situation relating to the disposal, the amounts disposed, and the management of plastic waste from both households and industry;
- (3) Publicity activities, including the preparation and presentation of videos and publications, for the purpose of obtaining a correct perception of the management of plastic waste.

PWMI has also been aggressively promoting recycling operations, studying the actual conditions in the recycling industry, and providing loan guarantees



Exhibitions concerning recycled products are held in Japan's major cities under the joint sponsorship of the Ministry of International Trade and Industry and the Japan Plastics Effective Utilization Union.

and other assistance to recyclers. We have invested an outlay of approximately 10 billion yen for these activities in the past.

At the same time, the total volume of disposed waste has increased hand in hand with economic development and the amount of plastic waste has increased at an even faster rate. In addition, it has

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Toshiro Arai

Formerly of Japan
Petrochemical Industry
Association



As we entered the decade of the seventies, the local governments of large metropolises had a headache about the problem of municipal waste. On the one hand, extreme opinions, such as one that would prohibit the production of polyethylenes, etc., had appeared. On the other hand, within the petrochemical industry, loud voices were raised to demand clear solutions to put an end to these movements of opposition to plastic containers.

Since I believed that the waste problem could not be solved by engineers alone, I suggested that each company belonging to the Petrochemical Industry Association dispatch two or three people who were superior in economics or science to conduct on-the-spot studies of the problem.

In line with this proposal, a committee for countermeasures against plastic waste was formed within the

Association. Iwao Iwanaga, who was then chairman of Mitsui Petrochemical Industries, Ltd. was appointed chairman of the committee. Mr. Iwanaga worked energetically while holding the conviction that the petrochemical industry could not develop unless the waste problem was solved. All of us who were members of the committee also worked enthusiastically under the attraction of Mr. Iwanaga's warm personality.

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Hachiro Obata

Formerly of Ministry of
International Trade & Industry
(MITI)



When I was serving in MITI's Second Chemical Department in 1972, the demand for plastics—especially plastic containers—was expanding, and representatives from all of the local governments came to our Ministry with the request that we do something about the damage being done to their incinerators by the huge amounts of plastic waste. The most effective countermeasure would have been to set up systems to manage the waste, but the funds for that and the assurance of payability were not available.

Finally, a Plastic Waste Research Association was established with the help of government and industry. Technological research was first carried out and the technology was then put into widespread use. These activities took shape while being supported with Assistance funds that were provided by the government.

25th
Anniversary

become more and more difficult to secure sites for disposing of waste by burying in recent years. For these and other reasons, then, the situation concerning waste becomes increasingly serious year after year.

After taking these circumstances into account, the plastics industry issued in May of 1994 proposals concerned with a Promotion for Recycling and Volume Reduction of Municipal Solid Waste. These made clear the fact that the plastic industry was now prepared to tackle these problems in an aggressive manner. PWMI studied policies that could bring about the realization of these proposals and the result was the creation of a "Thermal Recycling Project" within the Institute at the beginning of 1995. Moreover, upon receipt of assistance funds from the

Government, we started a project for the development of next-generation technology for the liquefaction of plastic waste and also launched other new activities which we pursued in an aggressive way.

The directions we followed were in agreement with the directions indicated in the Container and Package Recycling Law that was enacted in June 1995.

As we further invigorate our activities, including our new activities, in the future, the basic stance of our Institute during the next quarter of a century will be one that is suitable for planning the promotion of materials recycling, thermal recycling, and other countermeasures involving the management of plastic waste.

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Toru Sanbongi

Ministry of Health & Welfare



The Container and Package Recycling Law came into existence through the good offices of people in all industries, but the systems stipulated in the law must still be pushed forward in a fundamental manner.

There is an extremely large amount of plastic in the waste from containers and packages. This plastic is collected by local governments but—after the collection—it is reclaimed and recycled by makers of packaging and other manufacturers, such as those in the beverage industry, etc. In other words, the organizations that take the waste back and reclaim it are different from the organizations that manufacture the raw materials. From the standpoint of recycling at the lowest possible costs, however, further efforts from the side of the materials makers are desirable.

In this respect, I think that PWMI has an important role to play in the future.

the Ministry of Health & Welfare Ministry's Living Environment Council in June of 1992 and discussions at sectional meetings included those concerned with the Container and Package Recycling Law. Each committee member is well-versed in the subject of plastics and the respective roles of residents (for sorting), local governments (for collecting and managing) and industry (for recycling) have been determined during the course of lively but cool-headed discussions.

In parallel with this, a deliberative committee in the Industrial Structure Council at the Ministry of International Trade & Industry has also been holding discussions. In addition, in June of 1994, a committee of experts from manufacturers of raw materials for plastics, plastics processors, and the governmental offices concerned announced a proposal for a Promotion for Recycling and Volume Reduction of Municipal Solid Waste.

In October of 1994, ideas were formulated and submitted in regard to an evaluation of the past work of the plastics industry on the problem of plastic waste, an affirmation that the costs of waste management should be shifted on the basis of PPP (polluter pays principle), and an agreement that the cost burden should be borne primarily by industries which produce the contents of containers as a general rule in order to ensure fairness between the domestic industry and imported products.

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Keiichi Higuchi

Former Chairman of PWMI's
Managing Member Committee



A deliberative committee on the treatment of waste and composed of specialists was designated by

Enforcement Imminent for Container and Package Recycling Law

by DOI Hirokaz

Japan Container and Packages Recycling Association

The Container and Package Recycling Law will go into effect from April of 1997. The responsibilities for the sorted collection of PET bottles, glass bottles, etc., and the recycling of these into recycled products will be divided among consumers, local governments and businesses. It has also been decided that other types of containers must be completely recycled from the year 2000. The Japan Container and Packages Recycling Association was established in September of 1996 to carry out the responsibilities involved in this type of recycling work. The outline of the Association's duties in relation to the enforcement of the new law that is presented below is based on an explanation provided by Director DOI

The Container and Package Recycling Law and the Role of the Association

The duty of the Japan Container and Packages Recycling Association is to act as an intermediary between the local governments that collect sorted waste, such as PET bottles, etc., and the businesses that recycle it into recycled products.

Local governments collect the waste that has been stipulated by the law, wash it, and store it temporarily. Different companies then pick up the type of waste in which they specialize and recycle it into recycled products. The Association's mission is to contract with those local governments that have completed plans for sorted collections and to promote recycling by paying trust money to the companies that convert the waste into recycled products. The business expenses of the Association are paid by trust money from designated businesses (manufacturers of containers, beverages, etc.).

Following the founding of the Association and while waiting for a date from which the new law will be enforced, we started collecting business records on companies that have performed recycling work as well as on those that have used recycled products in the past. At present, we are accepting applications from designated companies that wish to be commissioned to produce recycled products.

In addition, we are proceeding with the task of accepting applications to have recycling work performed from those cities, towns and villages that have local governments with completed plans for sorted collections and also possess disposal facilities that have been approved by the

Government. We now have contracts scheduled with 1,023 organizations in cities, towns and villages.

Relationships with Local Governments

The number of local governments from which the Association has received requests is small. There are also local-government sorted-selection systems that will not be ready by April and will not be started until the next fiscal year.

Depending on the scale of an enterprise, some of the companies on which the law imposes obligations have been decentralized. Others have been exempted or given a 3-year period of grace before enforcement of the law begins. As a result, the burden of treating the waste disposed from these companies has been placed on local governments, some of which cannot pay for the expenses involved.

These various problems must be carried with us beyond the start of the new system in April. But this is not a major concern when consideration is given to the fact that similar systems in France and Germany took several years to take root.

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