

PWMI Newsletter

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Plastic Waste Management Institute
JAPAN

Goals and Tasks

The Plastic Waste Management Institute (PWMI) was first established as the Plastic Management Research Association in November 1971, and received its current name in July 1972.

The goals of PWMI are (1) research into and development of a system that will effectively and efficiently process and recycle plastic waste, and (2)

promotion of that system.

PWMI is responsible for various tasks, including research and development of plastic waste recycling, implementation of a model experiment, technology distribution, investigation and research, public relations and public education, and loan guarantees for recycling ventures.

Activities

Continuous Research and Development, Study, and Public Relations

Since its establishment, PWMI has been involved in a variety of activities that encompass research and development of plastic waste recycling, loan guarantees for plastic waste recycling ventures, studies on plastic waste produced by the public and industry, and public relations-including publications and videos on plastic waste and its recycling.

New Challenges, New Responses

Problems relating to waste have been a hot issue in recent years and public awareness towards this issue, focusing

mainly on recycling, has been increasing more and more.

Because of this increased awareness, the Proposition for Recycling and Volume Reduction of Plastic Waste was submitted in May 1994. In response, PWMI established the Material Recycle (MR) and Thermal Recycle (TR) Research groups. These research groups studied the report and, as a result, beginning in 1995, PWMI set up the Thermal



Cement Kiln

Recycle Promotion Project Team. With this project team, and with financial support from the Japanese government, PWMI has been actively involved in, for example, developing next-generation plastic-waste liquefaction technology and other new ventures.

These activities comply with the Law for Promotion of Sorted Collection and Recycling of Containers and Packaging (June 1995). PWMI will continue to further push itself and promote plastic waste recycling—including material and thermal recycling.



Reducing Agent for Blast Furnace (under construction)



Gasification Plant (under construction)

Operations (1971-1998)

● Technical fields

Categorization

One of the difficulties involved in recycling plastic waste is that there are so many types. Solving this problem involves a great deal of technological development; some examples are a plastic bottle collection system and a near infrared ray automatic separation technology.

Volume reduction

Plastic waste volume can be significantly reduced for effective transportation or for efficient use as landfill.

Recycling promotion

A plastic waste recycling system is being studied. The plastic waste recycling/ reprocessing industry is also being evaluated.

Technology development support

The public is being asked for ideas that support technology development (e.g., recycling technology, recycled product usage, and incineration technology). By supporting this technology, plastic waste recycling is further encouraged.

Clean incineration

Incinerating plastic waste under proper conditions prevents or reduces generation of toxic gases. Studies are currently trying to determine the proper incineration conditions and methods for removing toxic materials from exhaust gas.

Oil-from-plastics

Early oil-from-plastics technology thermally decomposed only certain types of plastic. The goal of this technology is to recycle many types of plastic waste into oil.

Densified Refuse Derived Fuel

Plastic waste that contains foreign materials cannot be recycled but can be solidified for energy recovery.

Gasification

Plastic waste can be gasified; the gas produced can be a source for city gas and the like.

Blast furnace reducer

A technology that recycles plastic waste into iron-manufacturing reducer is being developed.

● Studies and Public Relations

- Study of plastic waste in garbage (domestic)
- Study of plastic waste treatment (overseas)
- Recycled product exhibitions
- Periodical publications
- Videos

Members

The current members consist of the following 29 corporations, 3 organizations and 5 supporting organizations:

●Regular members

Asahi Chemical Industry Co., Ltd.
 Asahi Glass Co., Ltd.
 Central Chemical Co., Ltd.
 Chisso Corporation
 Dainippon Ink & Chemicals Inc.
 Denki Kagaku Kogyo K.K.
 Du Pont-Mitsui Polychemicals Co., Ltd.
 Grand Polymer Co., Ltd.
 Idemitsu Petrochemical Co., Ltd.
 Japan Polyolefines Co., Ltd.
 Japan Polychem Corporation
 Japan Polystyrene Inc.
 Kaneka Corporation
 Kureha Chemical Industry Co., Ltd.

Maruzen Polymer Co., Ltd.
 Mitsubishi Chemical Corporation
 Mitsui Chemicals Inc.
 Montell SDK Sunrise Ltd.
 Nippon Steel Chemical Corporation
 Nippon Unicar Co., Ltd.
 Nippon Zeon Co., Ltd.
 Shin Dai-Ichi Vinyl Corporation
 Shin-Etsu Chemical Co., Ltd.
 Sumitomo Chemical Co., Ltd.
 Taiyo Vinyl Corporation
 Toagosei Co., Ltd.
 Tokuyama Sekisui Co., Ltd.
 Tokuyama Corp.
 Tohso Corp.

Ube Industries, Ltd.

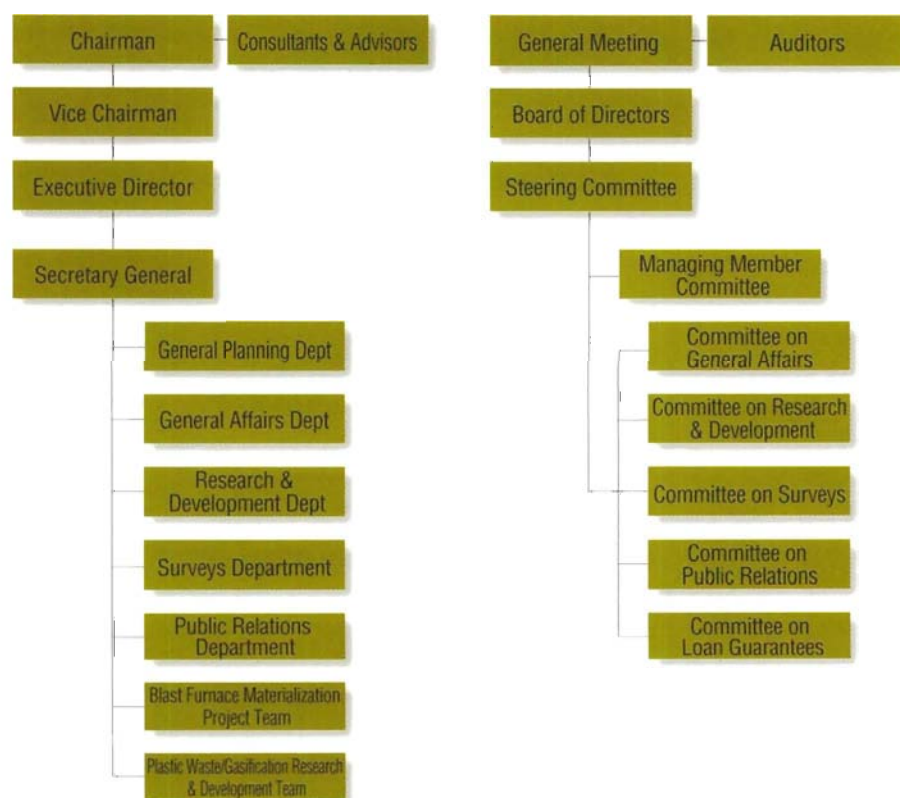
●Trade Organizations

Japan Petrochemical Industry Association
 Japan Plastics Industry Federation
 Vinyl Environmental Council

●Supporting Members

Japan PET Bottle Association
 Japan Expanded Polystyrene Recycling Association
 Japan Polystyrene Foamed Sheet Industry Association
 Japan PVC Environmental Affairs Council
 Japan Urethane Industries Institute

Organization



Plastic Waste Management Institute

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