



NEWSLETTER

No.21

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THE JAPAN SOCIETY OF WASTE MANAGEMENT EXPERTS

Dear Waste Management Experts

Movements related to waste management in Japan are very active recently. Since April this year, the Packaging Waste Recycling Law has been in effect as reported at the top of this issue. In June, the bill to amend the Waste Management Law for stricter waste disposal regulations was approved by the Diet. The amendment will be detailed in the next issue. Here, the present issue reports an example of illegal industrial waste dumping that backgrounds the amendment of the Law.

The JSWME annual conference, to be held in Kawaguchi on the 28th through 30th October 1997 as announced in issue No. 20, will provide an English Session. Those who wish to present papers at the session are requested to urgently apply for it to the JSWME by fax.

(by Hiroki Hashizume)

JSWME Newly Published C & G
(Citizens Edition of the JSWME Journal)

Today's waste problems are not solvable by studies only of experts, if not backed by change in the life style of individuals and by change in mass production and mass consumption oriented social systems. The point then is how many citizens would be deeply concerned, and would take active steps for the solution of waste problems? The JSWME, that has been publishing a bimonthly journal of technical papers and reports, has therefore newly and additionally issued a magazine "C & G", edited with the sense of citizens and with the view to expanding the ring of people concerned about waste problems.

The "C" stands for clean, civil and communication, and the "G" for green, globe and gift. The "C & G" will be published once a year only in Japanese.



The first issue of "C & G" contains a large varieties of unique statements of people including NGO activists, an illustrated book writer, an art museum clerk, a comic artist, and a cellist. Among these statements, the message titled "GOMI" contributed from Ono Yoko of New York shows how waste problems are globally and highly considered.

(by Hiroki Hashizume)

Packaging Waste Recycling Law Started

Nowadays in Japan, even after the heavy surge of the depression following the overheated economic growth, the amount of waste has been growing with the increase of throwaway articles (bottles, packages, etc.) supported by recovering consumption. The Packaging Waste Recycling Law was enacted to control such wastes on June 9, 1995.

The recycling rate of waste remains at a low level of 8.0%. Since Japan depends highly on overseas resources, recycling and resource recovery are very important tasks for Japan. Packaging wastes account for 60 percent by volume (20 to 30 percent by weight) of total wastes. Packaging waste recycling is therefore necessary also for improving waste collection efficiency.

Outline of Packaging Waste Recycling Law

- ① The law provides a new recycling system to be operated and maintained by the effort of every citizen. Instead of requiring municipalities to take full responsibility for the collection, treatment and disposal of wastes as before, this new law requires all the nation, industry and municipalities to cooperate together for the promotion of waste recovery and waste reduction to protect the global environment and resources and to sustain a comfortable living environment.
 - By consumers : Sorted waste discharging to support separate collection of packaging wastes.
 - By Municipalities : Collection of sorted packaging wastes
 - By industry : Processing, by themselves or through entrustment to designated corporations or recycling enterprises, of sorted packaging wastes separately collected by municipalities, for recycling.

- ② Processes for Planning and Implementation :
- The competent ministers will set forth “fundamental policies” for generally and systematically promoting the collection of classified wastes and recycling. Based on the basic policies, specific plans will be set up for the collection of classified wastes and the promotion of waste recycling.
- ③ The introduction of the new system is expected to have an effect on:
- waste reduction to a significant extent as well as the prolongation of the service life of final disposal facilities; and
 - the construction of a recycling society.

Outline of Separate Collection Plans and Required Quantities of Wastes Recycled by Municipalities

① Expected Quantities of Wastes Recycled by Years
(In thousand tons)

Fiscal year	1997	1998	1999	2000	2001
Glass containers	530	560	600	650	690
Clear	290	300	320	340	360
Brown	140	150	160	180	190
Others	100	110	120	130	140
PET bottles	17.5	17.5	17.5	17.5	17.5

② Waste Recycling Facilities for Production of Commodities

Municipalities having or required to have recycling facilities are listed. The numbers of facilities (both those existing and those reckoned to be built) are as follows.

- Facilities to process waste glass into cullets 33
- Facilities to produce tiles by using cullets 5
- Facilities to produce light-weight aggregates by using cullets 1
- Facilities to produce flakes and pellets out of cullets 1 or 2

Based on Fundamental Policies of the Competent Minister, Separate Collection Plan of Packaging Waste and Packaging Waste Recycling Plan must be worked out correlatively to ensure systematic, well-balanced promotion of the separate collection of packaging waste and their recycling in the form of marketable commodities.

The competent ministers will specify the total weights of waste packages required to be recycled in the form of commodities, which are defined as the largest of products given by multiplying the total weights of packaging waste which conform to specific separate collection standards and which are to be processed by specific enterprises into commodities, by a responsibility rate (89-98%) for specific enterprises.

Total Weight of Packaging Waste Required to Be Recycled in Fiscal Year 1997

Packaging Waste conforming to specific separate collection standards	Total weight planned to be collected in F.Y. 1997 (1,000 tons)	Total weight expected to be recycled in F.Y. 1997 (1,000 tons)	Responsibility rate for specific enterprises (%)	Total weight required to be recycled in F.Y. 1997 (1,000 tons)
Clear glass containers	406	290	94	272.6
Brown glass containers	300	140	94	131.6
Other glass containers	119	100	89	89.0
PET bottles	21.2	17.5	98	17.15

In F.Y. 1997, the total weight planned to be collected is higher than the total weight expected to be recycled in F.Y. 1997, and the total weight required to be recycled is therefore given by multiplying the “total weight expected to be recycled” by the responsibility rate for specific enterprises.

(by Hisayuki Futami)



Cartoonist's note :

The Packaging Waste Recycling Law may be posing too heavy a burden on municipalities.

The First Joint Presentation Meeting of JSWME and KSWES Held

The captioned joint meeting is an English Session convened as an embodiment of activities pursuant to the cooperation agreement executed between the Japan and Korean Societies.

This English Session was held on May 9, 1997 at Soon Sil University in Seoul by the Korea Solid Wastes Engineering Society. Eight members of the JSWME attended the meeting and presented six papers.

At the opening of the presentation meeting, Vice Chairman Masaru Tanaka of the JSWME, stated that he hopes the Japan-Korea cooperation in the waste management field would achieve good results, and that the cooperation would expand its circle over Asia and eventually worldwide. He, then outlined the five major waste problems Japan now faces: dioxins, waste reduction and recycling, illegal waste dumping, PCB management, and acquisition of landfill sites. These problems in Japan attracted the attention on Korean society members.



<English Session at Soon Sil University>

At the presentation session, sometimes heated discussions were not seen, partly because the presented subjects ranged over a wide number of subjects, and partly because the session was the first attempt in English. However, the English Session is believed to have given fresh incentives to the young members of the Japanese and Korean societies.

The two days including the study tour on the day following the session, were significant enough to show that the cooperation agreement between the two societies had begun to bud with the nucleus of young members who had studied in Japan.

(by Yasushi Matsufuji)

Illegal Dumping of Industrial Waste on Teshima Island

Much attention was recently drawn to a case of illegal dumping of industrial waste on a small island in Japan, which is dubbed the Japanese version of the Love Canal Incident.

General Tourism Development for Teshima (known as Teshima Kaihatsu), an industrial waste disposal company which collected car shredder dust and other materials ostensibly for recycling, illegally dumped and burned on a field industrial waste amounting to approx. 460,000m³ (approx. 510,000t) on Teshima in Kagawa Pref., a small

island neighboring Shoudoshima Island in the scenic Seto Inland Sea. This incident brought to public notice the prefectural administration's negligence, inadequate legislation, insufficient processing capability of industrial waste disposal company, a problem involved in the way the cost of restoration from pollution is assigned, and other problems related to industrial waste. The incident led to local residents' suit in opposition to the construction of an industrial waste treatment plant or final disposal site, exercising an effect even on the issue of the amendment of the Waste Management Law.

Developments subsequent to the incident in chronological order are as follows:

Dec., 1976: Teshima Kaihatsu applied to the Kagawa Prefectural Government for permission of its disposal of hazardous industrial waste.

Jun., 1977: Residents of Teshima filed a lawsuit, demanding the prefectural authorities' order the stopping of that the construction of an industrial disposal site.

Sept., 1977: Teshima Kaihatsu withdrew its original application and made an application anew for permission of its cultivation of worms with non-hazardous feed.

Oct., 1978: The prefectural government permitted the company to operate as an industrial waste disposal company. A settlement was reached between the group of local residents and the company, and an agreement was signed by them.

Some time around 1983: Complaints about the burning of waste on a field by Teshima Kaihatsu increased sharply.

May, 1987: Prefectural officials explained to local residents that the company's line of business was recovery of metals.

Nov., 1990: The Hyogo Prefectural Police exposed the company's violation of the Waste Management Law and ordered it to suspend its operations.

Dec., 1990: The Kagawa Prefectural Government concluded that Teshima Kaihatsu had illegally disposed of industrial waste, after an investigation on the company's premises.

The Kagawa Prefectural Government therefore invalidated the company's permit to operate as an industrial waste disposal company and ordered it to take steps to remove the waste it had illegally disposed of.

Jan., 1991: Arrested the top executive of Teshima Kaihatsu on a charge of violation of the Waste Management Law.

Jul, 1991: The arrested executive was judged guilty.

Nov., 1993: A group formed by 549 local residents submitted to the prefectural authorities an application for pollution case arbitration, accusing the prefectural government, Teshima Kaihatsu and 11 companies discharging industrial waste. The Environmental Disputes Coordination Commission decided to examine the case in Jan., 1994.

Jun., 1995: The commission made a final report. The pollution by the industrial waste had spread to the sea coast.

Oct., 1995: The commission calculated the total cost of executing 7 proposed remedial measures taken to get ¥6.1 billion to ¥19.1 billion for presentation at the 5th arbitration meeting.

Feb., 1996: The local residents brought a suit against Teshima Kaihatsu in the Takamatsu District Court, demanding removal of the waste out of the island and consolation money from Teshima Kaihatsu and its top executive.

Oct., 1996: The local residents added the national government (the Ministry of Health and Welfare) to the list of defendants.

Dec., 1996: The hearing at the court was concluded. The residents' demand was judged totally justifiable.



<In Teshima Island around 1991>

This decision at the Takamatsu District Court was the first-ever official justification of the local residents' demand of removal of illegally dumped waste and is expected to give momentum to solution of cases like this one through environmental pollution arbitration system.

(by Kenji Kakeda)

Journal of the Japan Society of Waste Management Experts
Vol.8 No.2 (Mar. '97) & Vol.8 No.4 (May '97)

The volumes contain the following technical papers.
(written in Japanese with English abstract)

Vol.8, No. 2 (March '97)

Microbial Removal of Cadmium from Waste Tissues of Scallop

by Shintaro Kikuchi, Toshie Terada, Chigusa Seki, Takashi Oshima, Takuji Sawaya, Katsutoshi Hokari, Yasuo Umehara and Kazuhiro Takamizawa

A Practical Technology of Dehydration and Composting System for Garbage

by Hiroshi Eya

Theoretical Study on Design of Sanitary Landfill Gas Vents —Design of Distance between Two Gas Vents and Permeability of Final Cover Soil—

by Hae-Seung Lee and Nobutoshi Tanaka

Properties of Glass Prepared from Chrysotile-Cement-Waste Glass

by Moriya Suzuki and Hiroshi Ryono

An Experimental Study on Groundwater Pollution Prevention of Sexivalent Chromium Leached from Chromium Containing Wastes by Providing Cement-Bentonite Cut-off Barriers

by Mamoru Kashiwaya, Hiroshi Deguchi, Seiichi Ueoka and Hiromu Iwasa

Effect of Extraction Condition on the Toxicity Evaluation of Municipal Waste Incinerator Fly Ash by Daphnia Acute Toxicity Test

by Futoshi Ikeda and Hidehiro Kaneko

Vol.8, No. 4 (May '97)

Biotransformation of Tetrachloroethylene to Vinyl Chloride and Ethylene in Soil and Groundwater

by Takashi Tokunaga, Yoshitaka Nagafuchi, Nobuyuki Sera, Shiro Tagami, Shigeji Kitamori, Yasushi Matsufuji and Masataka Hanashima

Studies on Carbonation Treatment for Highly Alkaline Incinerator Fly Ash

by Yukio Noma and Akiko Kida

Mixing and Combustion in a Municipal Waste Incinerator

by Toshihiko Kukutsu, Osamu Kawaguchi and Eiichi Shibuya

Simulation on Behaviors of Pollutants in Semi-aerobic Landfill Layers

by Sangchul Park, Tetsuya Kusuda, Takayuki Shimaoka and Masataka Hanashima

A Comparison of the Factors Influencing Residential Waste Recycling in Vancouver, Canada and Sapporo, Japan

by David Dungate, Toshihiko Matsuto, Nobutoshi Tanaka and Aleck Ostry

Production of Functional Compost Aimed at Repressing the Lawn Pathogen through the Inoculation of Bacillus Subtilis into Mowed Lawn

by Kiyohiko Nakasaki, Yoshiyuki Kishiro and Sachiko Hiraoka

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