NEWSLETTER

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THE JAPAN SOCIETY OF WASTE MANAGEMENT EXPERTS

Dear Waste Management Experts

This issue of NEWSLETTER begins with two important items of JSWME. First, on May 28th, Prof. Kenji Fujita, Dept. Env. Sci. & Human Tech., Saitama Univ., an authority on composting, was elected as the fourth President of JSWME, to succeed Prof. Masataka Hanashima. His term is 1996/97 - 97/98. Second, on May 10th, a new age of cooperation in waste management officially began with a tie up between JSWME and the Korea Solid Wastes Engineering Society.

Earthquake waste management has been one of the major waste management issues in Japan for the last year and a half. We reported the situation in issue No. 13 last July. Since then, JSWME has been working on the issue. The JSWME's Earthquake Waste Forum held this April is covered.

All Japanese cites with large populations have traffic-related problems such as traffic jams, air pollution, etc. The Waste Management Bureau of Kawasaki City, a city adjacent to Tokyo with a population of 1.2 million, is trying to find a solution by utilizing railways.

At the up coming JSWME 7th annual conference (Oct. 7-10, in Fukuoka), we are having a "Symposium on Partnership of Asian Countries toward Responsible Solid Waste Management" (Oct. 9, 13:00 - 16:00 at ACROS FUKUOKA). We are sure many people will be coming to the annual conference and particularly to the symposium.

(by Hiroki Hashizume and Tomomi Kitajima)

Greetings from JSWME's New President, Prof. Kenji Fujita

Dear Readers:

The Japan Society of Waste Management Experts (JSWME) consists of not only researchers but also producers of goods which later become waste; consumers who discharge waste; people who transport, treat and dispose of waste; manufactures of waste treatment plants; people who think about recycling of waste; etc.. This variety is a characteristic which cannot be observed in many other organizations. I think what helped elect me as president is the diversity of JSWME and the reflection of the changing age of waste management technology from simple disposal to reuse and recycling.

Prof. Kenji Fujita

Now, waste management is surely an issue of global concern. Japan's economy, in particular, is fueled by the importing and processing of various raw materials, and the exporting of finished products. Although export exceeds import in terms of money, the volume of the imported mass is far greater than that exported. The difference transforms into waste sooner or later. Therefore, in order to survive, we have to run Japan with the supposition that we must deal with great amounts of waste. Thus the issue of waste management could be understood as a structural problem for Japan. JSWME might have its credibility questioned if we were not to be able to help solve this problem.

Waste management does not necessarily get a fair appraisal from society. A lot of scandalous cases are revealed such as illegal dumping, polluting water sources, dioxins, odor and noise. JSWME should try to improve the social status of people related to waste management by minimizing and solving these problems through steady endeavor.

Owing to the efforts of our seniors, JSWME is steadily developing, with more than 3,000 members. However, JSWME has not been incorporated yet. Incorporation is urgently needed to improve JSWME's status. First of all, I would like to do my best with this issue.

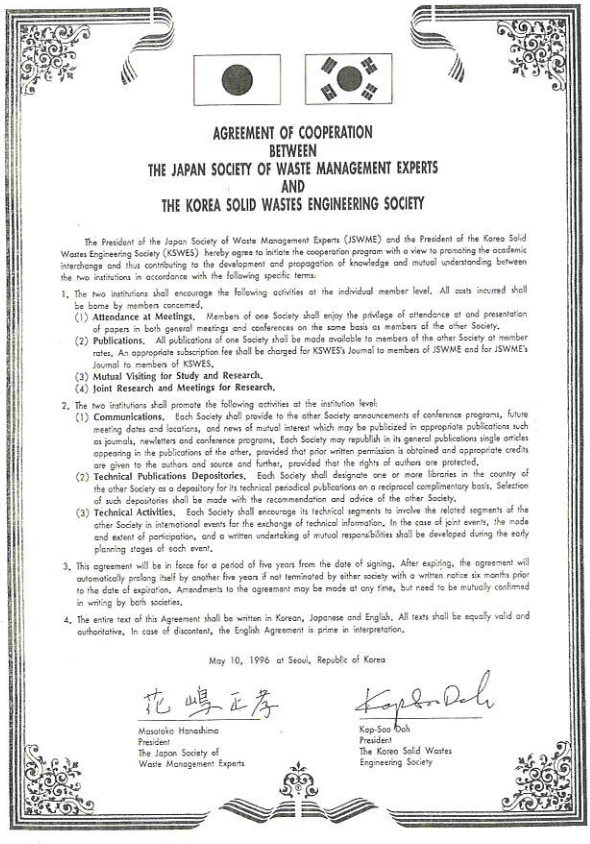
JSWME is a unique society in the sense that our activity is for our vision of a zero waste society. Most other organizations work to expand their jobs and get prosperous. Besides medical doctors' organizations, only JSWME and, perhaps a small number of other organizations are working in order to eliminate the need for their existence.

With the member's support, I would like to work for the further development of JSWME as a doctor to cure the cause of a disease of Japan.

Agreement of Cooperation Signed between Japanese and Korean Organizations

An Agreement of Cooperation between the Japan Society of Waste Management Experts and the Korea Solid Wastes Engineering Society (KSWES) was signed at Seoul on May 10th, 1996 on the occasion of KSWES's 1996 Spring Conference. This is the first agreement of this nature for JSWME. The document of agreement was signed by the presidents of both organizations, Prof. Masataka Hanashima and Dr. Kap-Soo Doh, the president of KSWES. JSWME and KSWES have 3.0 and 1.5 thousand members respectively. JSWME has 64 foreign members including 30 Korean members.

Agreement is signed by Prof. Hanashima (left) and Dr. Doh.



AGREEMENT OF COOPERATION
BETWEEN
THE JAPAN SOCIETY OF WASTE MANAGEMENT EXPERTS
AND
THE KOREA SOLID WASTES ENGINEERING SOCIETY

The President of the Japan Society of Waste Management Experts (JSWME) and the President of the Korea Solid Wastes Engineering Society (KSWES) hereby agree to initiate the cooperation program with a view to promoting the academic interchange and thus contributing to the development and propagation of knowledge and mutual understanding between the two institutions in accordance with the following specific terms:

1. The two institutions shall encourage the following activities at the individual member level. All costs incurred shall be borne by members concerned.
   (1) **Attendance at Meetings.** Members of one Society shall enjoy the privilege of attendance at and presentation of papers in both general meetings and conferences on the same basis as members of the other Society.
   (2) **Publications.** All publications of one Society shall be made available to members of the other Society at member rates. An appropriate subscription fee shall be charged for KSWES's Journal to members of JSWME and for JSWME's Journal to members of KSWES.
   (3) **Mutual Visiting for Study and Research.**
   (4) **Joint Research and Meetings for Research.**
2. The two institutions shall promote the following activities at the institution level:
   (1) **Communications.** Each Society shall provide to the other Society announcements of conference programs, future meeting dates and locations, and news of mutual interest which may be publicized in appropriate publications such as journals, newsletters and conference programs. Each Society may republish in its general publications single articles appearing in the publications of the other, provided that prior written permission is obtained and appropriate credits are given to the authors and source and further, provided that the rights of authors are protected.
   (2) **Technical Publications Depositories.** Each Society shall designate one or more libraries in the country of the other Society as a depository for its technical periodical publications on a reciprocal complimentary basis. Selection of such depositories shall be made with the recommendation and advice of the other Society.
   (3) **Technical Activities.** Each Society shall encourage its technical segments to involve the related segments of the other Society in international events for the exchange of technical information. In the case of joint events, the made and extent of participation, and a written undertaking of mutual responsibilities shall be developed during the early planning stages of each event.
3. This agreement will be in force for a period of five years from the date of signing. After expiring, the agreement will automatically prolong itself by another five years if not terminated by either society with a written notice six months prior to the date of expiration. Amendments to the agreement may be made at any time, but need to be mutually confirmed in writing by both societies.
4. The entire text of this Agreement shall be written in Korean, Japanese and English. All texts shall be equally valid and authoritative. In case of discontent, the English Agreement is prime in interpretation.

May 10, 1996 at Seoul, Republic of Korea

Masataka Hanashima
President
The Japan Society of
Waste Management Experts

Kap-Soo Doh
President
The Korea Solid Wastes
Engineering Society

Agreement of Cooperation between JSWME and KSWES

Academic interchange between the two groups and their members will be promoted more than before through various cooperative programs included in the Agreement. At the organization level, each group will designate one or more libraries in the country of the other group as a depository for its technical periodical publications. Joint planning of international events will also be promoted. At the individual member level, the use of the other society's services will become easier and mutual visiting for study and research will be encouraged.

Prof. Hanashima invited Dr. Doh to JSWME's 1996 Annual Conference to be held in Fukuoka, Japan, from 7 to 9 October, 1996. JSWME is expected to expand its international cooperation activities using this Agreement as a starting point.

(by Kunitoshi Sakurai)

JSWME's Earthquake Waste Forum - Lessons from the Tragedy -

A year and a half have passed since the Great Hanshin - Awaji Earthquake (GHAE). While a lot of houses, buildings and other facilities are under reconstruction, some spots are still left open after the removal of the destroyed buildings in the damaged area.

Experience of the troublesome but urgent collection, transportation and disposal of garbage and night soil made people recognize the importance of waste management. As a result, many municipalities are reviewing their waste management policies as well as rearranging their disaster management manuals.

Various groups and institutions have been conducting research on earthquake waste management. JSWME held a symposium at its Annual Meeting in Kobe in Oct. '95. On April 25-26 of this year, again in Kobe, JSWME held and "Earthquake Waste Forum", attended by more than 200 participants.

Dr. Masaru Tanaka, National Institute of Public Health, explained earthquake waste's risks to human health and the environment. Ms. Sonoko Yamada, Group to Think about Waste in Ashiya City, presented an idea based on experience volunteering in GHAE area, to make under-floor humidity control charcoal out of wood chip waste.

In the Panel Discussion "Lesson from GHAE and Disaster Prevention Planning - from the Waste Administration Perspective", the coordinator Prof. Nobuo Takeda, Kyoto University, summarized the issue: 1) Because the earthquake took place early in the morning right after three consecutive mid-winter holidays, many people with families did not feel anxiety for the safety of their families. Also, there were few hygienic problems caused by decomposed and stinky garbage. 2) There was no

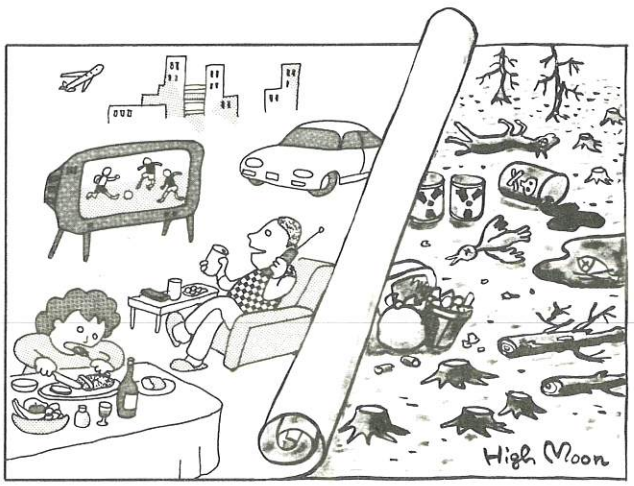
confusion caused by demagogy, thanks to the development of communication and democratic education since World War II. 3) Spread of public sewerage systems disabled night soil treatment. Such life-line systems should be not only physically strong enough to be anti-earthquake, but also should have back-up systems and should be planned as a combination of centralized management systems and community/sub-community scale management systems. 4) Management of demolition waste was much more serious than anticipated by the disaster prevention plan made prior to the GHAE. However, large landfill sites possessed by Kobe City and the Osaka Bay Regional Offshore Environmental Improvement Center (Osaka Phoenix Center) were very helpful along with open space on the sea shore for use as temporary stock yards for waste. 5) In order to evaluate the possibility of environmental pollution during demolition and open burning of waste, environmental monitoring systems for emergencies are necessary. 6) In such a disaster situation, we have to rely upon 'systems and techniques of yesterday', for instance, latrine-type toilet/vacuum car systems. We have to think whether we should follow the same steps used for reconstruction after World War II.

Another panelist, Prof. Kunihiko Hirai, Nagaoka Institute of Design, suggested that it was implicitly accepted that environmental protection was not an issue during reconstruction from the GHAE. In order to prevent unnecessary destruction of buildings and environmentally risky waste management, he proposed three different approaches: 1) remain subject to normal environmental quality standards, 2) establish less stringent standards for particular areas for certain periods, 3) no concern for environmental protection, with information disclosure and protection of the weak.

JSWME's Earthquake Waste Forum

After the three-session presentation and a study tour of a crusher, a trommel separator and an incinerator for earthquake waste management at Fusehata Environmental Center, Kobe, the following turned out to be the most important issues for better earthquake waste management: everyday preparedness before an emergency, temporary stock yards for waste, heavy machines and vehicles, methods to estimate amounts of earthquake waste, smooth office work for the application and acceptance of destroyed house removal, control of timing of removal of destroyed houses and buildings, recycling/treatment systems for earthquake waste, improvement of emergency reaction and resistance against earthquake, inter-prefectural waste management, mutual support systems, communication networks, personnel and alternative methods.

(by Morimichi Miyanohara)



What is going on behind the scenes ?

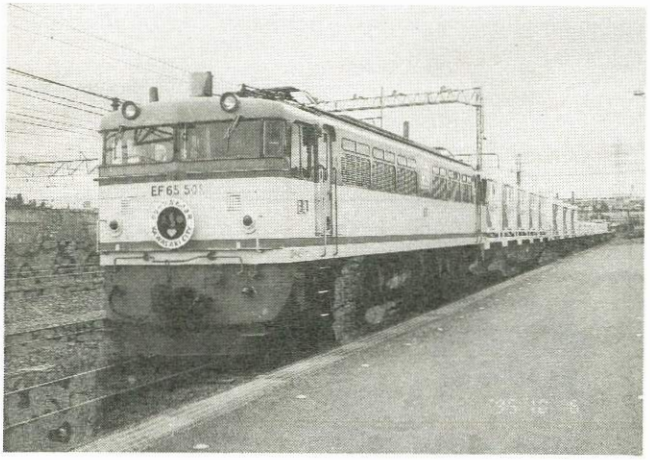
By Courtesy of Prof. Hiroshi Takatsuki
(translated by JSWME, taken from Monthly "The Waste", May 1996)

Japanese Municipalities on the Move (9)
– Kawasaki City's Environmentally Friendly Waste Haulage Service by Train –

Waste got in a train for the first time in Japan, Kawasaki City started a waste haulage service using a train in October, 1995. The city reviewed its waste haulage system that used only tracks and upgraded the system by using a train. This shift made the system more environmentally sound with the maximum use of a train.

There are four incineration facilities conveniently located for waste haulage in the city which stretches out from north to south. However, due to increased waste generation and decreased efficiency of waste haulage, which is caused by traffic jams, it became necessary to review the waste haulage system. The chance for train waste haulage came when the city opened a state-of-the-art incineration facility in the southern part of the city. The city decided to transfer waste collected in the north down to the south using a cross town train.

The train carries general waste such as household kitchen waste; bulky waste such as furniture and electric appliance: and incineration ash. Waste is loaded in a special container truck and carried to a freight train station in the north area. It is reloaded on a special train for waste haulage and is taken to a station in the southern area. At the station, specialized trucks transfer the general waste to an incineration facility, bulky waste to a resource recovery facility and incineration ash to a landfill site.



Train for Waste Haulage, Kawasaki City

This long special train has 16 cars, makes one round-trip every day, pulls 53 special containers, and travels 23 km per hour.

Waste haulage by train has three advantages. First, the generation of NOx, a major air pollutant, can be reduced. Without the help of a train, 30 trucks must make two round-trips each day. The estimated amount of NOx generated by these trucks is 2.7 ton/year. According to this figure, the new system provides a 10% cut in the total amount of NOx generation.

Second, waste haulage costs can be slashed. Cost of haulage using the existing rail infrastructure is approximately 200 million yen (or 2 million dollars) less expensive than for truck haulage.

Finally, by introducing the new system, traffic jams can be eased. This will prevent traffic accidents and increase haulage efficiency in urban areas where traffic jams are problematic.

Recently, a change has been occurring in waste management policies placing more importance on recycling and resource conservation. Here, the fixed idea of using only trucks for waste haulage has been set free by finding the advantages of haulage by train. It is considered that this shift has explored new directions and possibilities for the future of waste management. The city is, of course, looking forward to making more efforts in implementing environmental policies in waste management administration.

The city put the Environment Basic Ordinance into effect in July 1992 before any other cities. Based on this ordinance, all the city's policies have been conducted giving priority to the environment.

(by Kazuo Ishiwata)

Journal of the Japan Society of Waste Management Experts Vol.7 No.3 (May '96)

The volume contains the following technical papers. (written in Japanese with English abstract)

Vol.7, No. 3 (May '96)

Effluent Water Quality of a Stable-type Waste Disposal Site
by Tomonori Takeuchi, Yukio Takahashi, Yasuhiko Morita and Jong Guk Kim.

Study on Applicability of Catalytic Wet-Oxidation Process for Sewage Sludge Treatment
by Yoshiaki Harada and Kenichi Yamasaki

Prediction of Coke Consumption in a Melting Furnace for the Disposal of Dried Sewage Sludge by Use of a Neural Network Model
by Jiabing Wang, Takeshi Tsunemi, Takashi Fujii and Muneharu Ichikawa

Continuous Calcination of Scallop Shell with a Fluidized Bed
by Hideo Hosoda, Katsuyoshi Shimokawa, Yoshie Takahashi, Yutaka Yoshida, Masami Tsunekawa and Toshimasa Hirama

Characteristics on Supercritical Fluid Extraction of Organochlorine Compounds in Model Solid Waste and Application to Real Sample
by Katsuya Kawamoto

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