



NEWSLETTER

No.46

This Newsletter is published four times a year, e-publication only.

October 2003

THE JAPAN SOCIETY OF WASTE MANAGEMENT EXPERTS

Dear Waste Management Experts

Before the summer, there was some concern about a power shortage in Tokyo due to a nuclear plant failure. The unexpected cool summer has driven the anxiety away but resulted in a slightly poor rice harvest this autumn.

People involved in SWM were shocked by the explosion of an RDF storage tank at a facility in Mie prefecture last September, which killed two firemen. There have been a series of similar accidents around solid waste processing facilities in the past few years. We have to learn from these failures but we seem to be repeating them. Why is this?

JSWME is going to hold its 14th annual conference from October 22-24 in Tsukuba, located 50 km northwest of Tokyo. Some 460 papers will be presented, 40 of which are in English. Special lectures, exhibitions by citizens, small workshops and the Japan-Korea symposium on EPR will also be held during the conference.

To introduce Japanese ODA in the field of SWM, JICA (Japan International Cooperation Agency) studies in different countries will be reported on from this issue by a consultant member of the international relations committee, starting with "Hazardous Waste Management for Romania".



The Law for Promoting Environmental Education finally

High Moon

Comments by High Moon: "I guess you gotta start somewhere."

Illustrated by Prof. Hiroshi Takatsuki (Taka-tsuki literally means "High Moon".) Taken from the Monthly "the Waste", September 2003 and translated by JSWME.

As a brief introduction to the framework of the Japanese Waste Management Law, this issue also talks about specially controlled industrial waste managers for waste generators following the technical engineers for waste treatment/disposal facilities in the last Newsletter.

We look forward to our next issue which will cover a PC recycling initiative which started this October.

(Hideo Azuma)

Japan's ODA on Solid Waste Management - Hazardous Waste Management Study for Romania - <A JICA Development Study>

Introduction

A "Development study" is one of the major categories of technical assistance provided by JICA for developing countries. It was in the beginning of the 1980's that JICA commenced development studies in the solid waste management sector. So far, JICA has conducted dozens of development studies for the management of solid waste, most of which were municipal waste. In the middle of the 1990's, JICA started development studies in industrial waste management, which have so far been conducted in Chile, the Philippines, Thailand and Romania. I myself had the opportunity to serve as the team leader for the JICA study on industrial hazardous waste management for Romania, which is approaching its end.

Outline of the JICA Study on Hazardous Waste Management for Romania

The objective of the study was to strengthen hazardous waste management at both the government and private sectors. The major activities of the study were 1) the formulation of the Strategy and Action Plan for Hazardous Waste Management, and 2) the execution of pilot projects aiming at demonstrating appropriate technologies. We have conducted four pilot projects aiming at:

- 1) the promotion of heavy metal recycling using non-ferrous metal smelting facilities;
- 2) the improvement of metal finishing process by reducing input materials and energy/water consumption as well as improving in-factory hazardous waste management;

3) reduced consumption of organic solvent (used for degreasing metal surface) by applying a closed system; and

4) the development of some guidance notes (manuals) for the identification/ classification of hazardous waste, and for the formulation of company waste management plans as well as contaminated sites inventories.

At the end of the study, we held a series of seminars for the dissemination of the formulated strategies and the action plan as well as the results of the pilot projects. About 600 participants attended the seminars.



Photo: Zinc Plating Line improved through a pilot project within the JICA study on hazardous waste management for Romania

Pilot Projects

In this study, the pilot projects and the seminars were very useful in terms of demonstrating, disseminating and raising awareness of desirable hazardous waste management. It is expected that the importance of pilot projects within future JICA development studies will increase.

What has to be tested and proved through pilot projects is the local willingness and ability, on the part of local participants (beneficiaries), to implement a planned system. Such a task is the core of a feasibility study of a planned system as well. It is suggested that pilot projects should be planned in such a manner as to:

- 1) obtain a strong commitment and participation of local beneficiaries (waste generators) in pilot projects,
- 2) require local beneficiaries to bear a part of the cost of pilot projects,
- 3) utilize local consultants and technology suppliers as much as possible, keeping foreign consultants' inputs at a minimum.

In principle, development of the market for industrial waste management services is a must if the industrial waste management level is to be upgraded. All legal/administrative measures as well as technical

assistance programmes must be designed so as to create and expand such a market.

(Kiichiro Sakaguchi)

Specially Controlled Industrial Waste Managers - Legal Framework of Waste Management in Japan -

The term “hazardous waste” is by itself ambiguous and often different in each country. The Waste Management and Public Cleansing Law in Japan defines the category of “hazardous waste” as “specially controlled waste”.

In this law, “specially controlled industrial waste” refers to the waste categories defined as industrial wastes which are explosive, toxic, infectious or of a nature otherwise harmful to human health and the living environment. The law stipulates that the kinds of waste are waste oil, waste acid (pH: 2.0), waste alkali (pH: 12.5), infectious waste, waste PCB, PCB pollutants, waste asbestos, and hazardous industrial wastes which exceed the amount for the judgment criteria of heavy metals, organic chloride solvents, pesticides, and so forth.

The law also stipulates that the roles of the specially controlled industrial waste managers are as follows:

- 1) To grasp the situation of waste discharged in places of business
- 2) To make a plan for the reduction of waste and other forms of waste management
- 3) To ensure the appropriate treatment and disposal of waste through the confirmation of storage conditions, selection of the contractors, implementation of proper consignment, and control of the manifests including issuing and keeping them
- 4) To report to the governor of the prefecture or the mayor of the municipality

To carry out the above roles, the managers must have sufficient knowledge and expertise about the law. The



Photo: Participants Attending the Training Course of JW

managers should have official certifications such as selected professions, or should have a certain number of years of practical experience depending on their final education (see the table below). In cases where these requirements cannot be met, they must be approved to possess comparable knowledge and skills.

The Japan Industrial Waste Technology Center (JW), established with the support of the Ministry of the Environment, has been providing a one day training course for whoever wants to be a manager since 1993. One who has taken the course and passed the examination is certified to have the knowledge and skills required for the manager. The certificate of this program gives criteria for the government of any prefecture or municipality to judge the capability of candidates in the case of item A-6 in the Table. The course is also attended by managers who want to learn advanced knowledge and expertise and to develop themselves. The total number of course participants since 1993 exceeded 160,000 persons in 2002.

Table: Qualifications required for specially controlled industrial waste managers

Official certificates (selected professions, final education, etc)	Period (Years)*
A. Specially controlled industrial waste (except infectious industrial waste) generating site	
1. Environmental sanitation supervisor specified by the law	2
2. University education in science, pharmacy, engineering or agriculture	2 - 3
3. Junior college education in science, pharmacy, engineering or agriculture	4 - 5
4. Senior high school education in science, engineering or agriculture	6 - 7
5. Practical experience of technical work related to waste disposal.	10
6. With knowledge and skills equivalent to or superior to the above.	Non
B. Infectious industrial waste generating site	
1. Medical doctor, dentist, pharmacist, veterinarian, public health nurse, midwife, nurse, clinical test engineer, hygienic test engineer or dental hygienist	Non
2. Environmental sanitation supervisor specified by the law	2
3. University or technical college education in medicine, pharmacy, public health, hygiene or veterinary science	Non

* Period of practical experience required related to technical work of waste management.

(Haruo Matsumura)

International Symposium Information

Third Asian-Pacific Landfill Symposium (APLAS Kitakyushu 2004)

Date: October 27-30, 2004

Place: Kitakyushu, Japan

Deadline of abstract submission: October 31, 2003

Further information: <http://www.aplas.jp>

Articles of JSWME Newsletter

Back numbers of JSWME Newsletter from No.37 are available at our Homepage. Here is a list of major articles on those issues.

Legal and Institutional System of Waste Management in Japan

- 37 Administrative Reforms in Solid Waste Management as a result of the Restructuring of the Central Government Administration Institutional
- 38 Electric Household Appliance Recycling Law
- 39 Introduction of Laws for Establishing a Recycling-based Society (2) - Law on Promoting Green Purchasing -
- 40 Enactment of the Law for the Promotion of the Environmentally Sound Destruction of PCB Waste
- 41 Enactment of the Law Concerning Countermeasures against Soil Pollution
- 42 Establishment of the End-of-Life Vehicles Recycling Law
- 45 Technical Managers for Waste Treatment and Disposal Facilities in Japan - Framework of Waste Management Law in Japan -

Japanese Municipalities on the Move

- 41 Japanese Municipalities on the Move -The City of Nagoya - From Waste Reduction to Becoming a Leader of Recycling-based Societies
- 44 Municipalities on the Move - Food Waste Recycling in Nerima Ward, Tokyo-
- 45 Japanese Municipalities on the Move -Industrial Waste Treatment with Public Initiative in Kanagawa Prefecture-

Introduction of Universities and Research Institutions Concerned with Waste Management

- 37 Acid Deposition and Oxidant Research Center
- 38 Office for the Development of Waste Reclamation, Environmental Services Bureau, Yokohama City
- 39 Introduction of Institutes with SWM Program/Center for Environmental Science in Saitama
- 40 Introduction of the Faculty of Environmental Science and Technology at Okayama University
- 41 Introduction of Tottori University of Environmental Sciences
- 42 Introduction of Research Center for Material Cycles and Waste Management, National Institute for Environmental Studies (NIES)
- 43 Introduction of Institute of Environmental Systems, Graduate School of Engineering, Kyushu University

Technical Notes

- 38 Incineration of Municipal Solid Waste in Japan (4) /Background, Present Status and Issues of the Next

- Generation Type Incinerator Development
- 39 Incineration of Municipal Solid Waste in Japan (5) /The Original Idea of Incineration and the Direction
- 44 RDF-Based Power Generation

Japan's Overseas Cooperation

- 37 Hospital Waste Management in Japan and Vietnam
- 42 CENICA Project in Mexico by Japanese Technical Assistance Successfully Accomplished
- 43 JICA Group Training by JESC, -Thirty-three Years Success in the Field of the Solid Waste Management-
- 44 Technical Cooperation by JICA in the Waste Management Area
- 45 Japan's ODA on Solid Waste Management - Technical Committee Set Up by OECC for ODA on SWM -

Brief Note on Solid Waste Management in Japan

- 40 Waste Treatment Facility for Restoring Teshima Island's Industrial Waste

Other JSWME's Activities

- 39 2001 PBC in Okayama was held
- 39 JSWME's 12th Research Conference and the International Session
- 40 2001 PBC in Okayama Successfully Closed
- 41 JSWME's Cooperation with KSWES, Report of the 2002 Spring Conference of the Korea Society of Waste Management
- 43 Report of the International Session in 13th Annual Research Conference of JSWME
- 43 The 2nd Asia Pacific Landfill Symposium (APLAS Seoul 2002)
- 44 Promotion of the Destruction of PCB Waste in Japan
- 45 Report of the 2003 Spring Conference of the Korea Society of Waste Management (KSWM)

Yuko Sakita

Matsushita Electric Industrial Group's Environment-oriented Management: Gearing up for a Recycling-Based Society

Journal of the Japan Society of Waste Management Experts

Paper

Characteristics of Dioxins Removal by Coagulation and Sedimentation Process

Akihiro Toji and Tetsuya Kusuda

Preventing Hazardous-Level Generation of Hydrogen Sulfide Gas in Landfill Sites: Possibilities and Administrative Criteria

Yusaku Ono and Nobutoshi Tanaka

Analysis of the Operation Data of a Methane Fermentation Facility that Treats Manure and Tofu Refuse

Yukimasa Ogawa, Masanori Fujita and Yoshiteru Nakagawa

Adsorption of Basic Ca Ions by the Soil Layer in Landfill Sites

Yusaku Ono and Nobutoshi Tanaka

*Comprehensive Biological Assessment of Leachate from Waste Disposal Landfill Site by Medaka, *Oryzias Latipes**

Kae Osaki, Shosaku Kashiwada, Norihisa Tatarazako and Yoshiro Ono

Simultaneous Treatment of Heavy Metals and Salts in Fly Ash by Scrubbing Using Chelating Agent Solution

Tsutomu Imaoka, Michihiro Yamaga, Wataru Nishijima, Mitsumasa Okada and Yuzo Inoue

Journal of the Japan Society of Waste Management Experts, Vol.14, No. 5 (September 2003)

The latest issues of the Journal of JSWME contain the following articles. They are written in Japanese with the abstract in English.

Waste Management Research

Preface

Perspective on Basic Plan for Promoting the Creation of a Recycling-Oriented Society

Takashi Gunjima

Special Issues: The Basic Plan for Establishing a Recycling-Based Society

Overview of the Basic Plan for Establishing a Recycling Based Society

Kenji Someno

Towards a Society with Sound Material Cycles: Material Flow Indicators and their Quantitative Targets

Yuichi Moriguchi

Application of Basic Plan for the Establishment of a Recycling-Based Society from the Local Government Viewpoint

Takashi Inagaki

Active Partnerships that Aim to Promote Sustainable Lifestyles and Communities

Current Members of JSWME As of 30 September 2003
(Values in parenthesis are differences from 30 June 2003)

Regular Members	3,637	(24)
Students	301	(17)
Non-Japanese Member	78	(1)
Public Institutions	114	(0)
Supporting Members	193	(2)
Individuals of NPOs	2	(0)
Total	4,325	(44)

NEWS LETTER No.46, October, 2003

Published by Prof. Hiroshi Takatsuki, President,
The Japan Society of Waste Management Experts

Edited by Prof. Isamu Yokota, Chairman,
International Relations Committee

Buzen-ya Bldg. Shiba 5-1-9, Minato-Ku,
Tokyo 108-0014, Japan

Phone: (+81) 3-3769-5099 Fax: (+81) 3-3769-1492

<http://www.jswme.gr.jp/>

e-mail. international@jswme.gr.jp

Everyone can find the latest issue of NEWSLETTER and recent back numbers at JSWME Homepage above.

Readers who want to subscribe e-NEWSLETTER can receive it by e-mail with a PDF file on request.