

Industrial Waste Management and Waste Management Law (Waste Management and Public Cleansing Law) in Japan

[Main sources: Materials prepared by MOE, Japan]

**Incorporated Foundation
Japan Industrial Waste Information
Center**

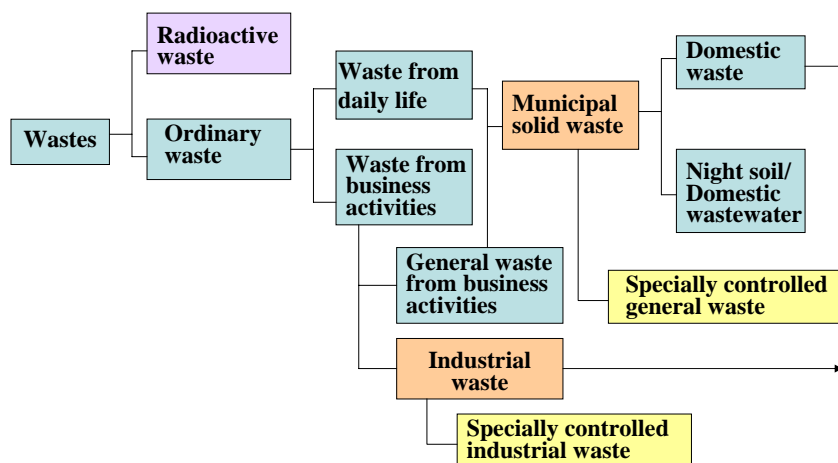
Chronological View of Waste-related Laws

year	Law promulgated	Note
1900	Clean Feculence Law	<ul style="list-style-type: none"> •to improve public sanitation. •to control infectious disease.
1954	Public Cleansing Law	<ul style="list-style-type: none"> •to improve public health by sanitarily disposing of waste and cleansing living environment.
1963	Urgent Measures Law on Capacity Increasing of Waste Management Facilities	<ul style="list-style-type: none"> •to improve living environment through better waste management.
1968	Air Pollution Control Law	<ul style="list-style-type: none"> •to cope with the increase of waste with economic growth and with public pollution emerged.
1970	Water Pollution Control Law Waste Management Law	<ul style="list-style-type: none"> •to address increasing industrial waste.
1981	Extended Seaside Environment Center law	<ul style="list-style-type: none"> •to enhance waste management capability.
1983	Septic Tank Law	
1990	DXNs Prevention Guideline	<ul style="list-style-type: none"> •to reduce waste generation, and to promote the reuse and recycling of waste.
1992	Revision of Waste Management Law	<ul style="list-style-type: none"> •to create a sound material-cycle society
1993	Basic Law on the Environment	<ul style="list-style-type: none"> •to minimize the impacts of hazardous substances (e.g. DXNs).
1995	Containers & Packages Recycling Law	
1998	Home Appliance Recycling Law	
1999	DXNs Special Measures Law	
2000	Basic Law for Promoting the Creation of a Sound Material-Cycle Society Revision of Waste Management Law Construction & Food Wastes Recycling Laws	<ul style="list-style-type: none"> •to develop a sustainable society.
2001	PCB Special Measures Law	<ul style="list-style-type: none"> •to deal with the past negative legacy.
2002	Soil Pollution Prevention Law	
2003	Industrial Waste Special Measures Law	<ul style="list-style-type: none"> •to address the illegal dumping issue.

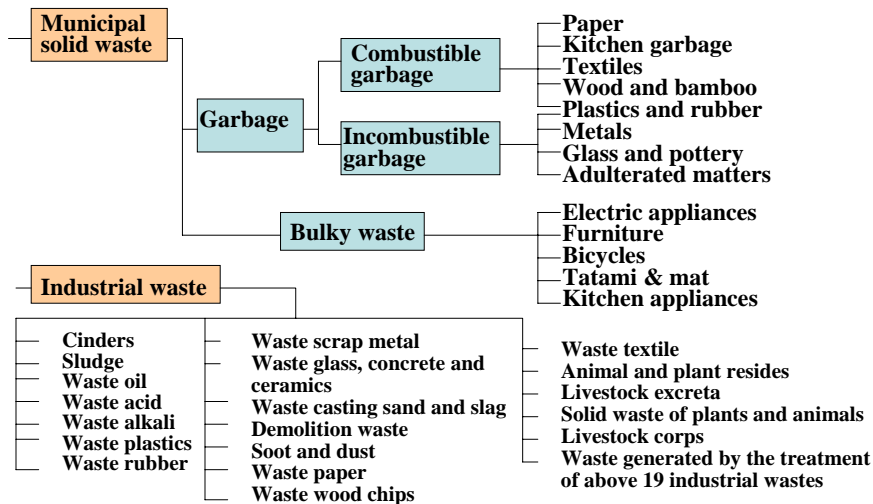
Contents List of Waste Management Law (WML)

- Article 1 (Objective)
- Article 2 (Definition of Wastes)
- Article 3 (Responsibilities of Businesses)
- Article 4 (Standards on Management)
- Article 12 Section 2 (Standards on Storage)
- Article 12 Section 3, 4, 5 (Standards on Commission)
- Article 12-3 (Industrial Waste Control Manifest)
- Article 14 (Permission for Management Businesses)
- Article 14-3, (Suspension of the Business,)
- Article 14-3-2 (Revocation of the permission)
- Article 15 (Permission of the Installation of Waste Management Facility)
- Article 25 – Article 33 (Penalties)

Definition and Classification of Waste {1}



Definition and Classification of Waste {2}



Specially Controlled Wastes {1}

- Specially controlled wastes are wastes that are explosive, toxic, infectious, or otherwise hazardous so that they can cause damage to people's health or living environment.
- These wastes are to be disposed of in accordance with special disposal standards, control standards, etc.
- Specially controlled wastes are classified into two kinds those are industrial and general wastes.

Specially Controlled Wastes (2)

Specially controlled **general wastes**

Type	Remarks
Parts using PCB	Parts removed from waste air conditioners, TV sets and electric ovens (general wastes) to be disposed of in accordance with the Notification by the Director of the Waste Management Division “ On Measures to Manage of Wastes Including PCB” dated March 17, 1976.
Dust	Dust collected by a dust collecting device installed at a garbage incineration facility with a daily disposal capacity of 5 tons or more where ashes and dust are discharged separately.
Infectious general waste	General wastes which are infected or likely to be infected with infectious pathogens, such as blood-tainted gauze , discharged by medical institutions.

Specially Controlled Wastes (3)

Specially controlled **industrial wastes**

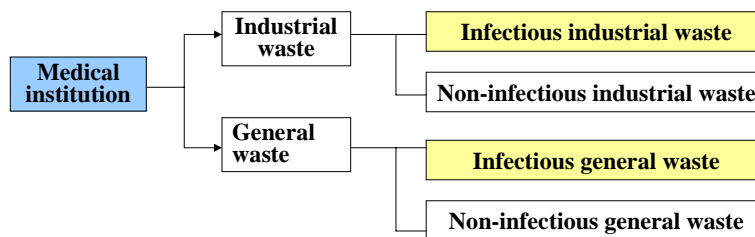
Type	Remarks	
Waste oil	Volatile oils, kerosene, and gas oil designated as industrial waste.	
Waste acid	Waste acid with pH of 2 or lower.	
Waste alkali	Waste alkali with pH of 12.5 or higher.	
Infectious industrial wastes	Industrial wastes which are infected or likely to be infected with infectious pathogens, such as blood and used injection needles discharged by medical institutions.	
Toxic	PCB contaminated substances	Virtually the same as waste PCB, PCB-contaminated articles and PCB-treated matters classified by WML prior to the revision.
	Waste asbestos	Airborne asbestos, etc., collected by a device installed at a plant which has a dust generating facility specified by the Air Pollution Control Law in the process of disposing of airborne asbestos and heat insulators including asbestos removed from structures as well as plastic sheets discharged from removal.
	Other toxic substances	Industrial wastes containing the toxic substances specified in the WML except PCB and asbestos. For example, cinders and dust containing DXNs, slag containing hazardous metal compounds, and other industrial wastes containing toxic chemical substances.

Infectious Waste

➤ Medical institutions

include hospitals, clinics, public health centers, blood centers, health laboratories, nursing-care facilities, birth centers, animal hospitals, and test and research institutes related to medicine, dentistry, pharmacy and veterinary medicine.

➤ Wastes from medical institution



Judging of Infectious Waste

Manual for infectious waste management based on Waste Management Law

• Step 1 Form

Blood, serum, plasma and body fluid.
Pathological waste (organ and tissue)
Things used for the test and research related to pathological waste.
Sharps attached blood

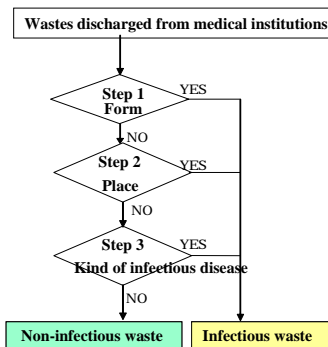
• Step 2 Place

An infectious disease ward, a tuberculosis ward, an operation room, an outpatient facility, an intensive care unit and a test laboratory.

• Step 3 Kind of infectious disease

Things used for treatments and tests on the classes of , and , the designated and new infectious diseases.

Medical materials and tools used for treatments and tests on the classes of and infectious diseases. For a paper diaper, the specific criteria is set up.



Judging flow for infectious waste

* A case where it would be difficult to judge based on this flow chart, then you should consult with a medical doctor and follow his or her judge.

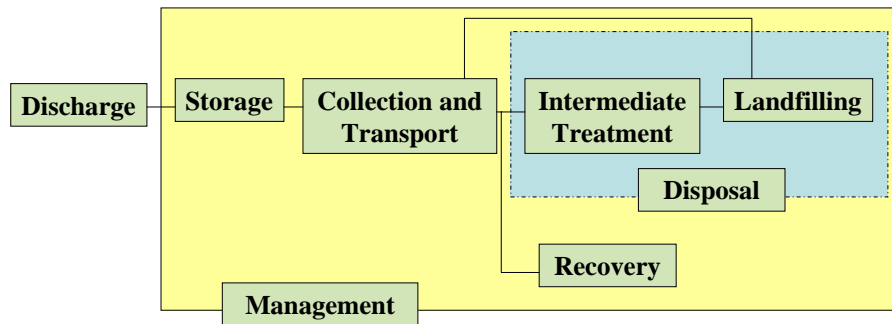
Note on the Judging of Infectious Waste

- A case where it is difficult to judge based on the judging flow, leave the judging to a person who has professional expertise such as a medical doctor, a dentist and an animal doctor.
- Since blood products for transfusion can not distinguish apparently from blood, they are requested to be managed as “blood type waste”, even though they are not infectious.
- Sharps are requested to be managed in the same manner as infectious waste, even though they are not infectious.
- An hermdialysis circuit unit and a infusion fluid delivery unit are categorized as “infectious matter”.
- A paper diaper is requested to be managed depending upon the kind of infectious disease.

Legal Responsibilities for Waste Management

Responsibility item	General waste	Industrial waste
Waste management	Municipal government	Generator
Enforcement of the law and regulations. Administrative services	Municipal government	Prefectural government
Import and export of waste	National government	National government

Definition of Management and Disposal in WML (1)



Definition of Management and Disposal in WML (2)

- The management of waste is defined as the sequence of actions from the generation to the final landfilling of waste, namely segregation, storage, collection and transport, recovery and disposal of waste.
- The “disposal” involves “intermediate treatment”, where waste is detoxified, inactivated or stabilized by means of physical, chemical or biological methods, and “final disposal” of which virtual action is landfilling.

Industrial Waste Management Facilities (1)

- “Industrial waste management facilities” includes “intermediate treatment facility” and “final disposal facility” prescribed in the enforcement order that may impact on the living environment.
- On the above facilities, any party, that may be the central or a local government, is requested to obtain the construction permit.
- An institutional exception is introduced where a party operating recovery business is able to operate without the permit provided that he has the concerned approval of the Minister of the Environment.

Industrial Waste Management Facilities (2) -1

Enforcement Order Article 7	Name of facility	Regulated scale
1	Sludge dewatering facility	Capacity > 10 m ³ /d
2	a Sludge drying facility b Sludge sun-drying facility	Capacity > 10 m ³ /d Capacity > 100 m ³ /d
3	Sludge incineration facility (Not apply to PCB related matters)	Capacity > 5m ³ /d or Capacity 200 kg/h or Grating area 2 m ²
4	Waste oil water separation facility	Capacity > 10 m ³ /d
5	Waste oil incineration facility (Not apply to PCB oil)	Capacity > 1m ³ /d or Capacity 200 kg/h or Grating area 2 m ²
6	Waste acid or alkali neutralization facilities	Capacity > 50 m ³ /d
7	Waste plastics incineration facility	Capacity > 5 t/d

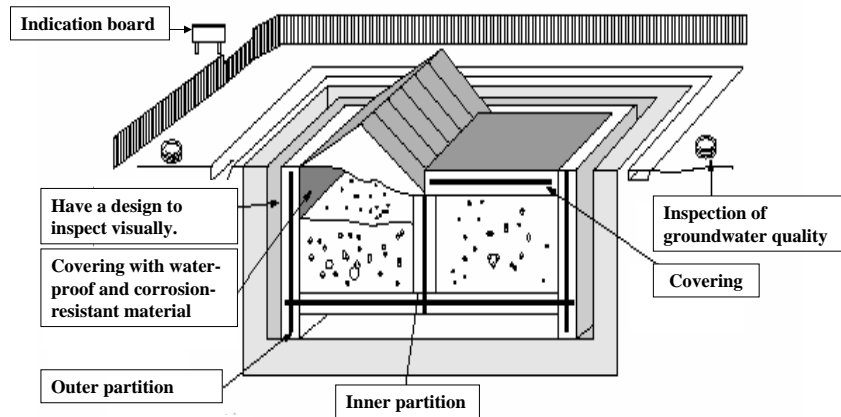
Industrial Waste Management Facilities (2) -2

Enforcement Order Article 7	Name of facility	Regulated scale
8	Waste plastics shredding facility (Not apply to PCB related matters)	Capacity > 100 kg/d or Grating area 2 m ²
8-2	Wood waste and wreckage crushing facility	Capacity > 5 t/d
9	Concrete solidification facility of sludge containing metals or DXNs	For all facilities
10	Baking facility of sludge containing mercury or its compounds	For all facilities
11	Decomposition facility of cyanogen compounds contained in sludge, waste acid or waste alkali	For all facilities
12	PCB related matter incineration facility	For all facilities
12-2	PCB related matter decomposition facility	For all facilities

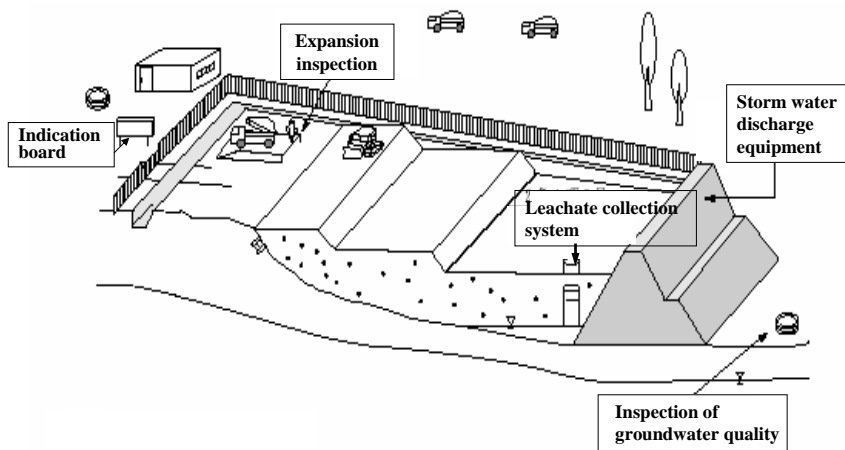
Industrial Waste Management Facilities (2) -3

Enforcement Order Article 7	Name of facility	Scale
13	Washing or separation facility of contaminated PCB or PCB decontaminated residue	For all facilities
13-2	Incineration facilities other than the specified above	Capacity 200 kg/h Grating area 2 m ²
14	A Isolated type landfill	For all facilities
	B Stabilized type landfill	
	C Controlled type landfill	

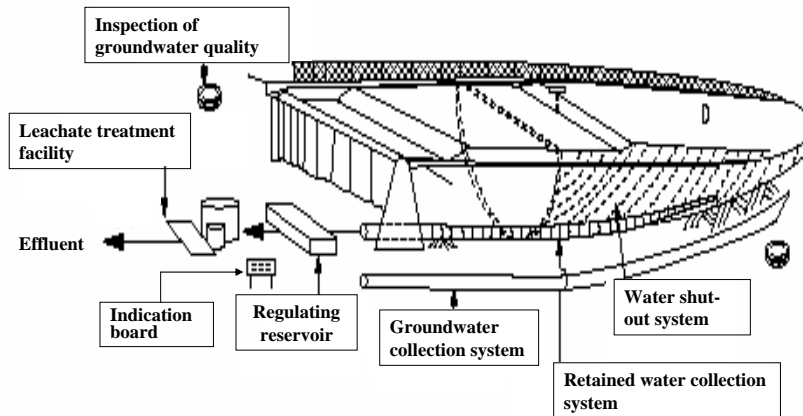
Isolated Type Landfill



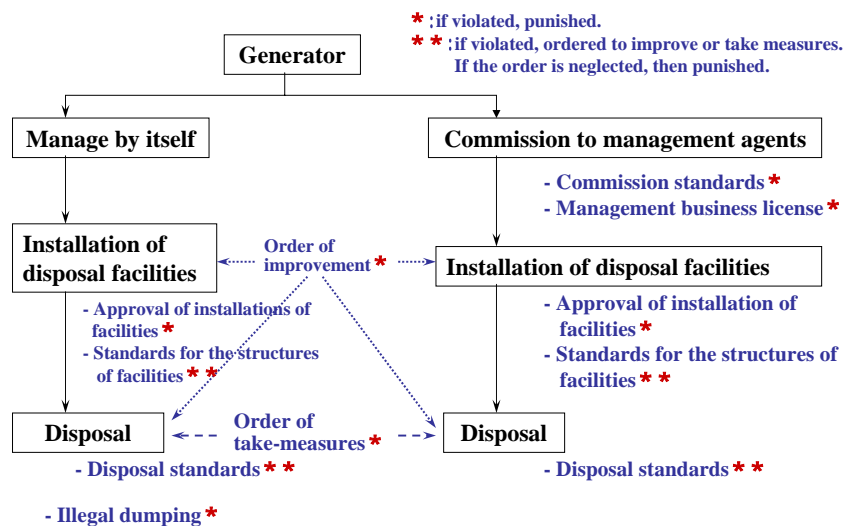
Stabilized Type Landfill



Controlled Type Landfill



Mechanism of the Regulation for Industrial Waste



Permit for Waste Management Business

- **The capabilities of an applicant are requested to be complied with the permit standards as specified in the WML.**
- **Conditions to be satisfied:**
 - A. **Facilities to be used satisfy the technological standards specified.**
 - B. **The knowledge and skill concerned satisfy the criteria set by a competing local authority.**
 - C. **Financial feasibility**
- **Not fall into the disqualifying provision specified.**
For instance: a bankrupted person, a member of a crime syndicate .

Technological Standards {1} **Common Requirements in Design Structure** **(except landfill site)**

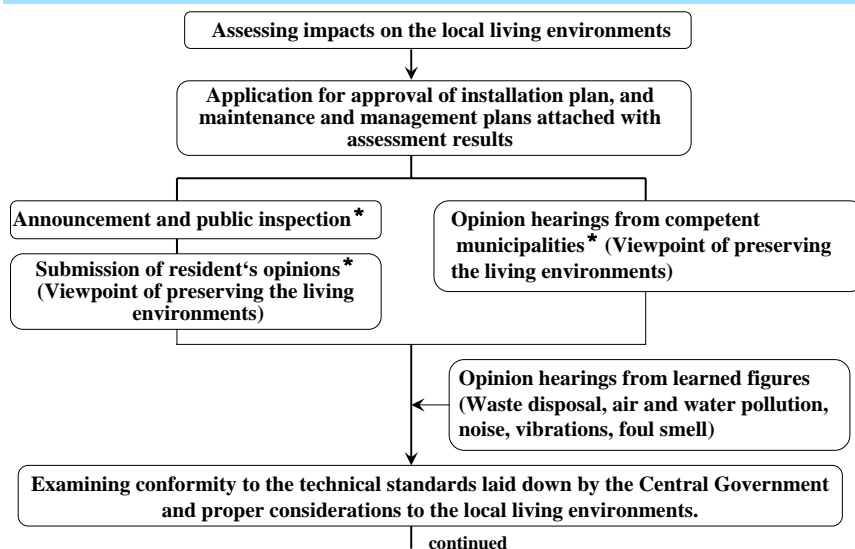
- **To have sufficient structural strength on a facility.**
- **To have necessary preventive measures to the corrosion of materials used.**
- **To have necessary preventive measures to the dispersion or flowing out of waste, or the transpiration of odor.**
- **To have necessary preventive measures to noise and vibration generated that may impact on the living environment.**
- **To have a necessary discharge water treatment facility to prevent the living environment from damage in water quality.**

Technological Standards (2)

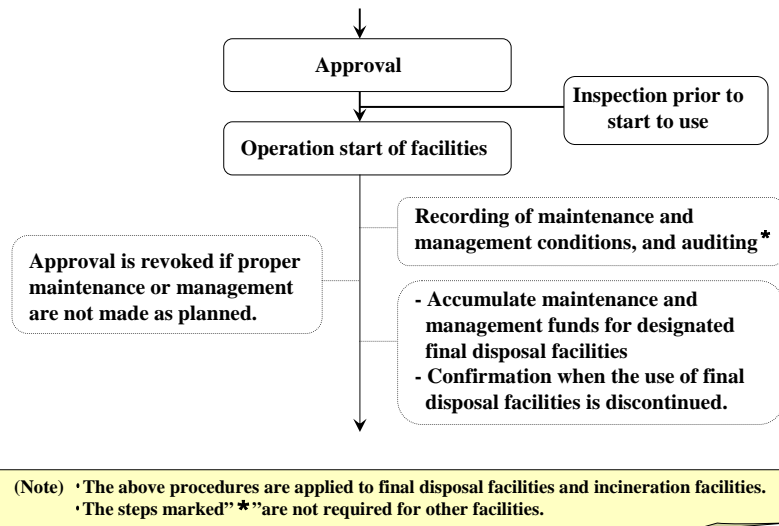
Common Items in Operation and Maintenance (except landfill site)

- To carry out necessary property analysis, or weight measurement of a waste to be received.
- To control the waste feed rate within the capacity of a facility.
- To stop as soon as possible and take necessary preventive measures not to impact on the living environment, when a trouble such as a flow out of waste from a facility happens to occur during operation.
- To carry out checking and functional inspection regularly on a facility.
- To take necessary preventive measures to the dispersion or flow out of waste and the transpiration of odor.
- To keep the inside of a facility clean and sanitary.
- To take necessary preventive measures to noise and vibration generated that may impact on the living environment.
- To carry out the necessary quality control and the regular inspection of discharge water not to impact on the living environment.
- To prepare the checking and inspection records of a facility, and keep them for 3 years.

Procedures for Installing Waste Management Facilities (WMF) (1)



Procedures for Installing WMF {2}



Responsibilities of a Generator on the Commission of Waste Management

- A generator is responsible for managing his waste on a cradle-to-grave base.
- Three key responsibilities:
 1. required to comply with the commission standards.
 2. required to confirm the proper treatments of his waste by a control manifest.
 3. required to perform his necessary cares to ensure the proper treatments of his commissioned waste.

Standard on Commission [1]

- **Required to commission to a business having an appropriate license**
- **Required to notify information such as type, mass, properties, and precautions in a written form, when a specially controlled waste is commissioned.**
- **Required to prepare a written contract**
 - **Items to be specified in a contract:**
 - a) **Type and mass of waste**
 - b) **Destination of transport**
 - c) **Location · method · facility of disposal or recovery**
 - d) **Location · method · facility of intermediate treatment**
 - e) **Others**
 1. **Effective term of a contract**
 2. **Fare**
 3. **Type of license**
 4. **Location, and type and limit mass of waste in transshipment or storage for transport.**
 - Yes or No for mixing other wastes, if waste is subjected to a disposal for stabilized landfill.

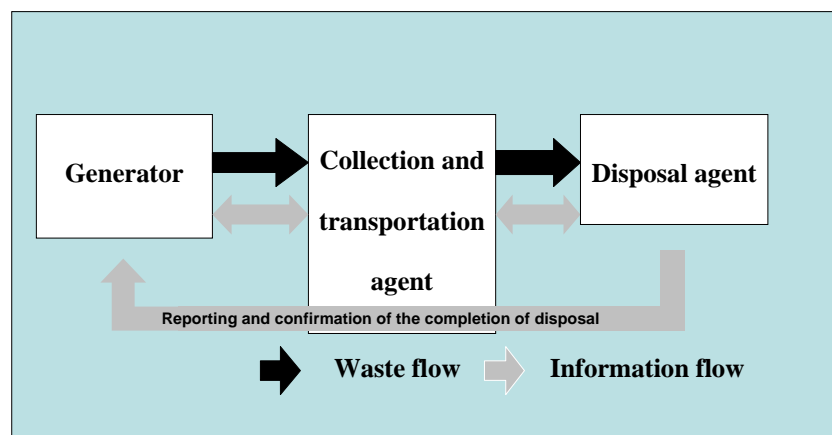
Standard on Commission [2]

5. **Information necessary for proper management**
 - a. **Properties and packaging of waste**
 - b. **Property changes such as decomposition, volatilization, etc.**
 - c. **Hazardous nature of waste, when mixed with other wastes**
 - d. **Indication of the Mark displaying the content of a chemical substance in the designated wastes below as specified in JIS C 0950**
 - **End of life personal computer, unit type air-conditioner, TV-receiver, microwave oven, cloth dryer, refrigerator and cloth washer**
 - e. **Indication of including a waste containing asbestos**
 - f. **Other necessary information while handling.**
 6. **Way of informing changes in the items above**
 7. **Reporting by a assignee to a assignor, when commissioned work is completed.**
 8. **Way of managing a waste, when a contract is cancelled.**
- **Required to retain contract related documents for five years**

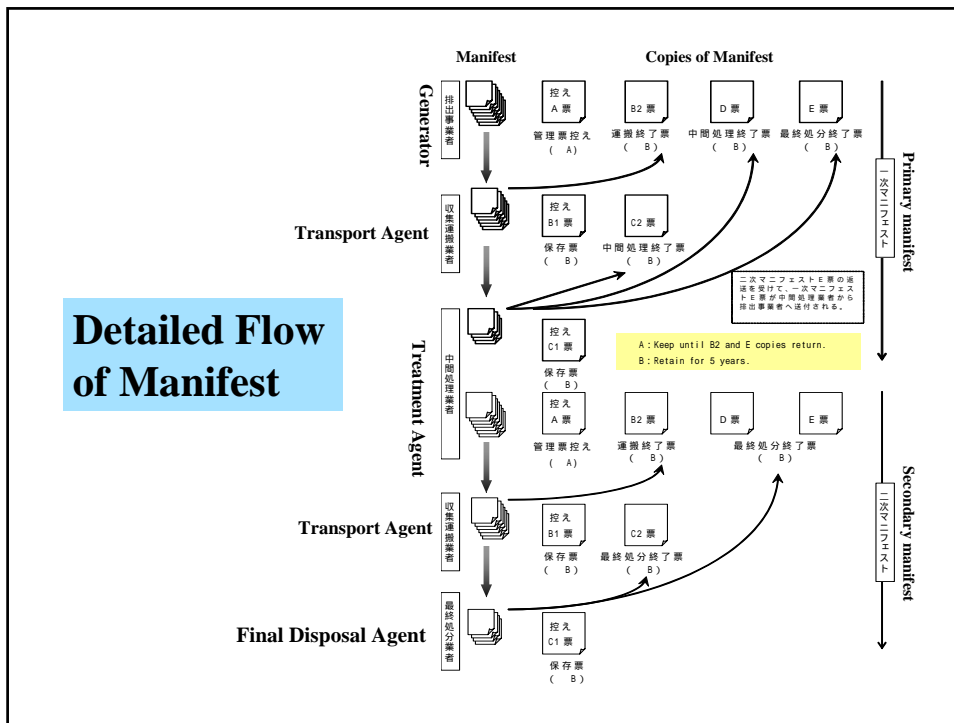
Manifest System

- When a business (including contractors of intermediate treatment) generating industrial waste as a result of his activities are to commission treatment agents to transport or dispose of his waste (including industrial waste of intermediate treatment), he shall issue the treatment agent an “**Industrial Waste Control Manifest**” (hereafter referred to as **Manifest**) at time of delivering his waste.
- **Manifest** shall be transferred to the commissioned treatment agents one after another at the completion of each treatment of the waste and shall return a copy of **Manifest** to the issuer within a period prescribed in the Law.
- When the issuer receives a copy of **Manifest**, he/she must confirm each completion of the treatments and keeps the copies of **Manifest** for a period specified in the Law.
- Annual reporting of the record of issued **Manifests** to a competent governor is required as of April 2, 2008.

Basic Flow of a Manifest



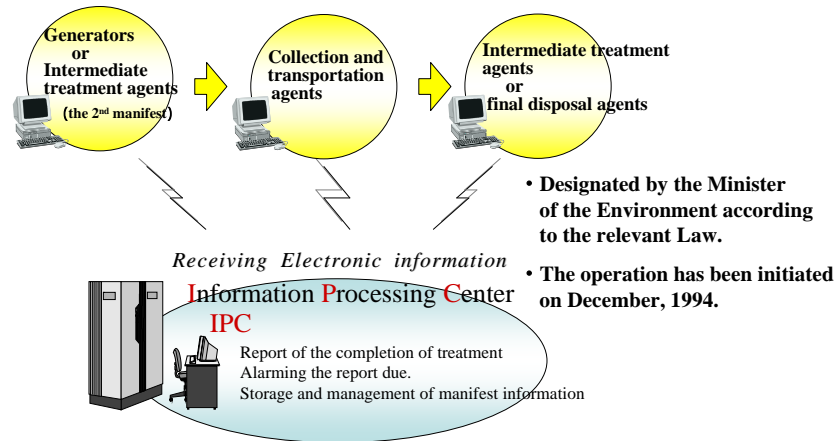
Detailed Flow of Manifest



Electronic Manifest

- A business can use the Electronic Manifest System to report the completion of the treatments by the commissioned agents instead of issuing a paper type Manifest.
- The Electronic Manifest System (JWNET) is managed and operated by the Information Processing Center under the designation by the Minister of the Environment.
- The Information Processing Center is placed in Japan Industrial Waste Technology Center.
- Annual reporting of the record of issued Manifests by a generator is not required when Electronic Manifest is used (the Information Processing Center manages it on behalf of a generator).

Concept of Electronic Manifest System

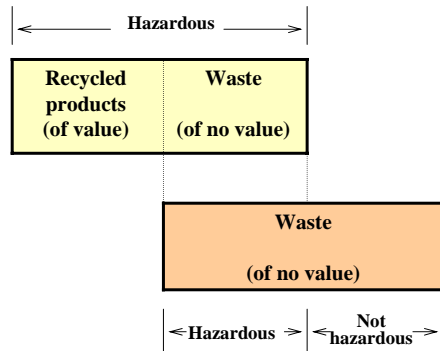


Transboundary Movement of Hazardous Waste

- When wastes to be imported or exported are specified hazardous wastes under the Law Concerning Control of Import, Export, etc. of Specified hazardous Waste, etc., such imports or exports require the approval of the Central Government (the Ministry of International Trade and Industry, and the Ministry of the Environment).

Difference Between the Domestic Law Corresponding to “Basel Convention” and the Waste Management

- The domestic Law corresponding to “Basel Convention” (substances controlled by the Basel Convention)
- Export/Import approval under the Foreign Trade Control Law



- Substances controlled by the Waste Management Law
- Export/ Import permit

Evaluation Scheme for the Integrity of a Industrial Waste Management Business (IWMB)

- Objectives
 - Open the existence of IWMBs satisfying a specified quality level to the public widely.
 - Provide referential information to a generator, when he/she selects a IWMB.
 - Indicate the target for a IWMB who makes efforts to enhance his/her integrity.
 - Minimize the disparity in criterion that local governments determine.
- Key Evaluation Points
 - (1) Compliance
 - (2) Disclosure
 - (3) Efforts to the Environment Protection

Asakusa Temple

