

**Waste Recycling Governance Guidelines
for Waste Generating Companies**

September, 2004

**Waste and Recycling Subcommittee
Environmental Committee
Industrial Structure Council**

Waste Recycling Governance Guidelines for Waste Generating Companies 1) What is “Waste/Recycling Governance”?

1. Present situation of waste problems

- Revision of the Waste Management Law in terms of strengthening the responsibilities of businesses discharging industrial waste
 - Strengthening the responsibilities of businesses discharging waste
 - Improving the manifest system
 - Considerably strengthening the condition under which businesses must abide
 - Strengthening the penalties
- Emergence of large-scale illegal waste dumping cases and exertion of measures/orders of the illegally dumped waste dumping for business in charge of discarding waste:
 - Illegal waste dumping on the border between Aomori and Iwate prefectures
 - Publicly announcing the name of the company and issuing the measures/orders on the removal of the illegally dumped waste
 - Losing brand image due to the public announcement of the company name
- Present situation & influence of illegal waste dumping:
 - Illegally dumped industrial waste volume 1 around 400,000 tons per year (around 1,000 cases).
 - The remaining volume of illegally dumped waste at the beginning of 2003 was approximately 11 million tons (approx. 2,500 cases).
 - In addition to the environmental impacts such as water pollution and soil contamination, its impact on society is great because it causes economic loss in order to restore the area to its original state, and it results in the deterioration communities in the surrounding areas.

2. Waste management issues of businesses

- Some businesses tend not to recognize waste problems as a management task nor deal with them properly, for example:
 - Completely leaving the in-house waste-management/recycling into contracted waste-management/recycling corporation, etc.
 - Only the staff in charge of waste-management/recycling
 - Not caring about the treatment or destination of the recyclable materials after they sell their waste for recycling use.
 - Executive officers mistakenly think that they have completely solved waste issues
 - Not tackling the promotion of the 3Rs including separated collection/discharge on a consistent basis

3. Enhancing waste/recycling governance

(1) Establishing an in-house system to build/enhance waste /recycling governance

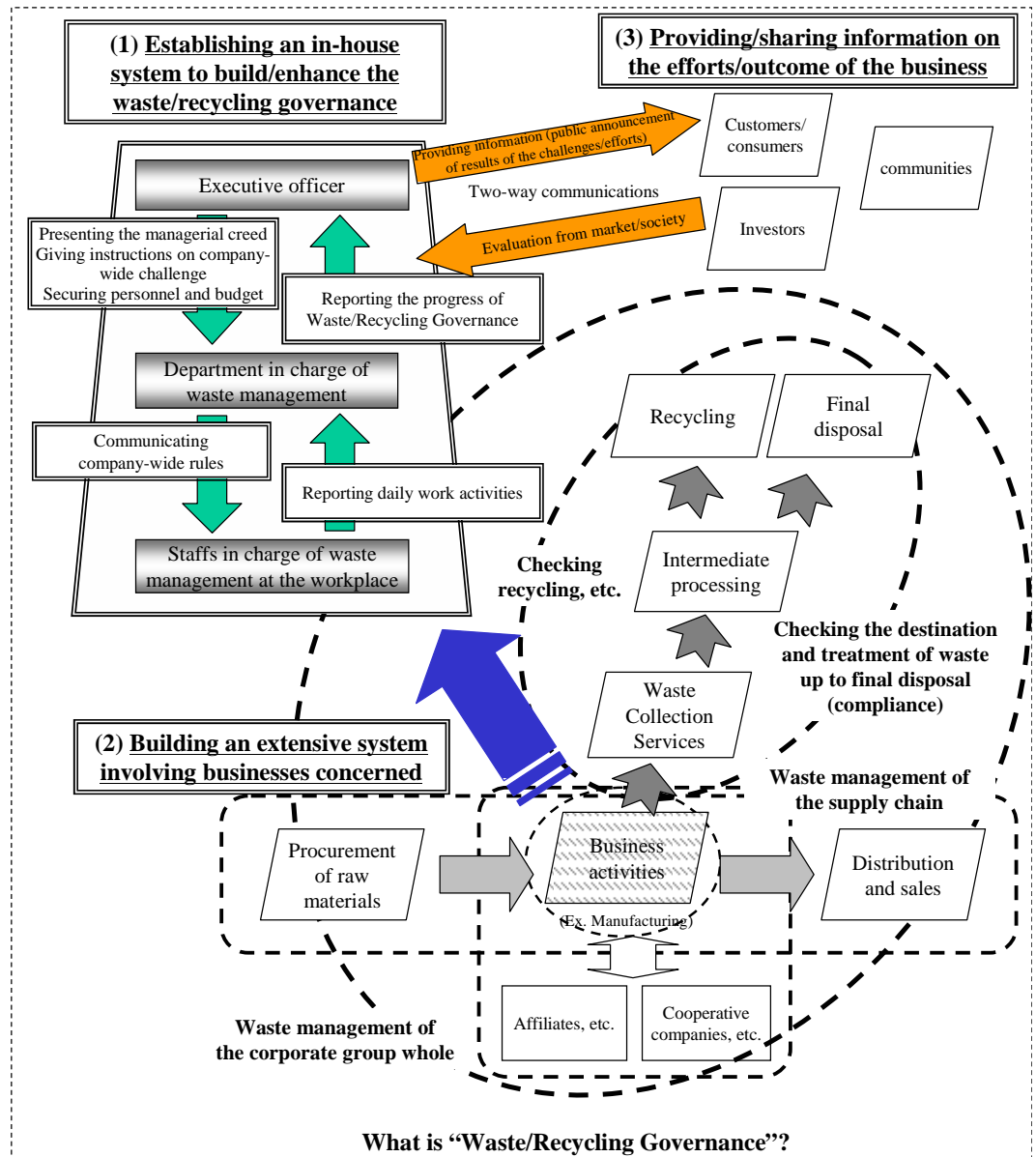
- Executive officer presents the managerial creed and gives instructions on company-wide challenges
- Securing necessary personnel and budget to further facilitate proper in-house waste management/recycling
- Department in charge of waste management builds a waste treatment/recycling system and improves in-house rules.
- Staff in charge of waste management at the workplace implements daily management including separated collection/discharge
- Two-way communications should be implemented between each level

(2) Building extensive system involving businesses concerned

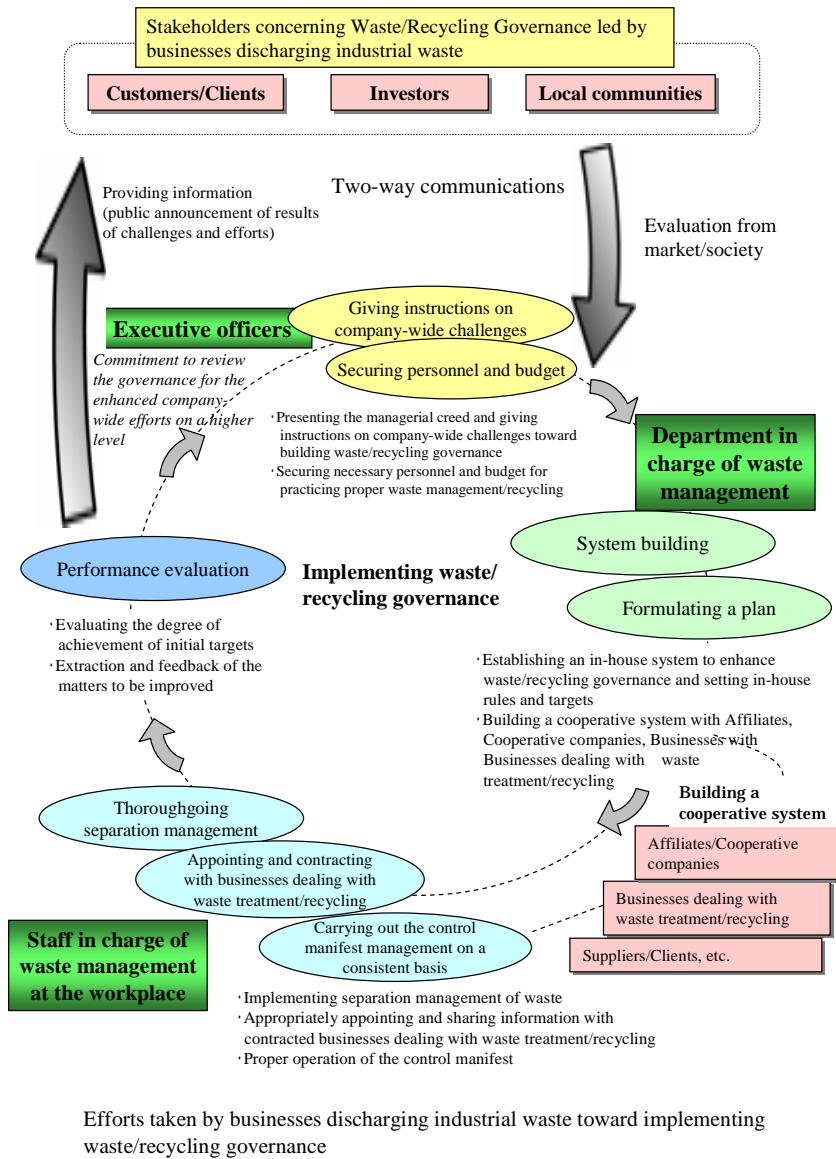
- Building a system in cooperation with businesses dealing with waste treatment/recycling.
- Building a system as a corporate group including affiliates and cooperative companies
- Building a system in cooperation with businesses relating to the supply chain including suppliers and clients

(3) Providing/sharing information on the efforts/outcome of the business

- Providing/sharing information to/with customers, consumers, investor, and local residents



Waste Recycling Governance Guidelines for Waste Generating Companies 2) Guideline for building the Governance (outline)



- Guideline (outline)**
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 - Gathering/summarizing information concerning day-to-day waste management
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 - Promoting communication with outside stakeholders
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 - Flow of separation management
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3.3 The operation of control manifest

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Introduction

In an effort to solve waste management issues including the predicament of waste disposal facilities and further facilitate the effective use of natural resources, Japan is now vigorously taking steps toward building a recycling-oriented society through the promotion of the 3Rs (Reduce, Reuse and recycle) initiative. The Basic Law for Promoting the Creation of a Recycling-Oriented Society, which was enacted in 2000, declares that the creation of a recycling-oriented society must be pushed forward with specific roles to be fulfilled by national and local governments, businesses as well as citizens through the promotion of the 3Rs initiative. In addition, the Basic Plan for Promoting the Creation of a Recycling-Oriented Society, which was developed in 2003, sets numerical targets that the volume of final disposal should be reduced by half by the year 2010.

Despite such efforts, the amount of waste discharge has remained almost flat for the last 10 years or so, amounting to 450 million tons per year. Moreover, the volume of illegal industrial waste dumping, which is newly discovered every year, amounts to about 400,000 tons, and it is reported that the accumulated amount of identified illegal waste in Japan is reaching 10 million tons. In 2002, on the border between Aomori and Iwate prefectures, a large-scale illegal waste dumping case, with the amount reaching approximately 880,000, was uncovered. The ensuing investigation revealed that all of the waste discharged, from more than 10,000 businesses, was carried to this dumping site.

Under such circumstances, the waste management issue is once again becoming a managerial task for individual business entities to address. Considering the spate of illegal dumping cases, the Waste Management Law (the Law Concerning Waste Management and Public Cleansing) has been amended several times, which demands that an individual discharger should assume more responsibilities for the management of their waste. In fact, in the said illegal dumping case on the border between Aomori and Iwate prefectures, the measure orders on restoration to an original condition were issued to several companies, who turned to be guilty of negligence, and the names of these companies were publicly announced. Such violations of the law may affect the relevant companies immensely through undermined brand images, etc.

Furthermore, as a part of corporate social responsibilities (CSR) that is gaining attention recently, companies are asked to vigorously fulfill their corporate responsibilities through the promotion of the 3Rs initiative as well as of the creation toward a recycling-oriented society, etc.

Up to this point in time, as a support measure for a discharger's efforts for proper waste management, the Guideline for Waste Treatment/Recycling by Businesses was developed by Industrial Structure Council (Waste Prevention and Recycling Subcommittee) in 1998. At this time, based on subsequent amendments to the Waste Management Law, the actual status of illegal dumping as well as accumulated know-how on a discharger's proper waste management, we have made an overall revision of the said guideline incorporating a new concept of "waste/recycling governance" from the perspective of how the waste management issue should be addressed in the context of business management. We do hope this guideline will be utilized by many parties so that individual discharger's endeavors for promoting the 3Rs initiative as well as for proper waste treatment shall be further enhanced.

September, 2004

Waste and Recycling Subcommittee, Environmental Committee,
Industrial Structure Council

How to use this guideline

This guideline was developed to assist waste discharging companies as to how “waste/recycling governance” can be established and operated, so as to further facilitate proper waste treatment/recycling (hereinafter, the waste reduction through separated discharge shall be included).

This guideline consists of three chapters as shown below, respectively targeting three different parties: executive officers, the department in charge of waste management and the staff in charge of waste management.

- Chapter 1: Presenting the concept of “waste/recycling governance” for executive officers
- Chapter 2: Practical guide for the department in charge of waste management
- Chapter 3: Practical guide for the staff in charge of waste management at the workplace

This guideline encompasses the following uses in a company’s efforts to promote the establishment and operation of “waste/recycling governance.”

- Materials for executive officers to become aware of the gravity of business management risks concerning waste treatment/recycling as well as the importance of promoting the 3Rs initiative as a part of corporate social responsibilities(CSR), and to give instructions on company-wide challenge toward building and practicing “waste/recycling governance.”
- Practical guide for the department in charge of waste management to develop concrete programs toward building “waste/recycling governance.”
- Practical guide for the staff in charge of waste management to provide hands-on education/training in separated discharge and waste treatment/recycling to other employees so as to practice “waste/recycling governance.”

It is also advisable to utilize the guideline as a valuable resource to share a company’s efforts for implementing “waste/recycling governance” with suppliers as well as clients, and businesses dealing with waste treatment/recycling so as to further enhance “waste/recycling governance” in a wider, more collaborative context.

Finally, this guideline aims to provide the basic concept and framework toward building “waste/recycling governance”. Therefore, when each company strives to build and operate “waste/recycling governance”, it is important that each company should build its own governance appropriate to the actual status of the company.

1 . Present Situation of Waste/Recycling Issues surrounding Corporate Management and the Concept of Waste/Recycling Governance

In order to prevent improper waste disposal or illegal waste dumping and to avoid the emergence of corporate management risks, businesses are asked to take a look at the issue from a corporate management point of view and face up to the waste/recycling issues beyond the framework of the traditional waste management.

This chapter focuses on the waste/recycling issues related to corporate management including: corporate social responsibility (CSR), the present status of Japan's efforts towards establishing a recycling-based society, corporate management risks behind waste treatment/recycling practices, and finally presents the new concept of "Waste/Recycling Governance".

1.1 The Waste/Recycling Issues surrounding Corporate Management

In recent years, practicing corporate management based on the philosophy of “Corporate Social Responsibility (CSR)” has become widely expected. Therefore, businesses are now strongly asked to view the waste/recycling issues from a corporate management perspective, to make an active contribution to use natural resources effectively and to establish a recycling-oriented society.

There are some businesses that have started company-wide efforts for the 3Rs (reduce, reuse and recycle) initiative through promoting zero emission. However, waste disposal practices are strictly specified by the law and one wrong move in handling could lead businesses to become entangled in illegal waste dumping, etc. In some cases, businesses management may suffer enormously, including undermined brand images, due to the public announcement of the company’s name. Bearing these risks concerning waste treatment/recycling firmly in mind, businesses discharging industrial waste are asked to take appropriate measures.

1) The Rise of corporate social responsibility (CSR)

Amidst the significant change of the social demands on businesses to participate in the sustainable development of the society, the impact of business activities on the society is growing far greater than before. Businesses are thus asked to fulfill their “corporate social responsibility” as a corporate citizen, giving consideration to relationships surrounding business activities among various stakeholders including customers, investors, local communities and employees.

Today in the 21st century, businesses’ response to environmental issues has been recognized as a key challenge amongst numerous other corporate social responsibilities. Especially, contributing towards establishing a recycling-oriented society through the promotion of the 3Rs (reduce, reuse and recycle) as well as proper waste management is one of their paramount tasks that businesses should carry out as an organization who assumes a part in the economic society.

(1) International trend of environment-friendly business activities

With ISO’s establishment of standards for environmental management as a turning point, efforts exerted by private companies with regard to the environment have made substantial progress and the number of the companies that further aspire for environmental management as a source of profitability as well as competitiveness is on the rise. Meanwhile, the consciousness and behaviors of stakeholders, including shareholders, are changing, and more proactive investment activities that support those companies which practice environmental-friendly, socially-aware business activities are emerging.

Declaration of Commitment to the Development of an Eco-Oriented Nation (the Interim Report of the Industry & Environment Subcommittee of the Environmental Committee, Industrial Structure Council, June 2003) (Excerpts)

[Emergence of stakeholders’ conscious investment]

- In Japan, Eco-funds first appeared in 1999.
- Including the amendment to the corporate pension law in Britain (requiring public announcement of investment policies that give consideration to the society and environment), legal systems urging investment consideration for social aspects and the environment are being put into place in countries such as Germany, Australia, etc.
- There are reports suggesting that making investments in those companies which emphasize environmental as well as social issues show a higher performance than regular investment activities.

[Mandatory information disclosure to shareholders]

- The demand of information disclosure on activities linked to the environment and society from listed companies has risen.

(Case 1) France “the New Economic Regulations”

In France, in May 2000, as a part of the amendment to corporate law, “the New Economic Regulations” were enacted (and enforced in February 2004), which requires listed companies to prepare and publish annual reports on social and economic impacts associated with their business activities.

(Case 2) Mandatory environmental reporting at the Securities and Exchange Commission(SEC)

SEC demands listed companies to submit their environmental reports, so as to promote information disclosure concerning environment and social issues. The 1998 amendment to Securities Act requires “submitting responsibility for environmental and social disclosure report”. In addition, by exchanging memorandums with EPA, SEC shares information on businesses’ environmental compliances.

<The emergence of shareholders activities aimed at environment and social aspects>

- Methods taken by environmental NGOs, etc. are changing so that the market demand for businesses to consider environmental conservation is rising.
- What is becoming more and more noticeable in the United States of late is the stakeholders’ shareholder proposal related to environmental and social issues. The number of shareholder proposals related to the environment as well as social issues amounted to 262 cases in 2001 and investors’ total assets have grown from 529 billion dollars in 1995 to 903 billion dollars in 2001.

(2) Corporate social responsibilities and enhanced competitiveness

Corporate management based on the concept of “corporate social responsibility”, which is rapidly spreading today, can be considered as an approach that aims to make the creation of a corporate sustainable value compatible with the realization of a better society. Based on the CSR standards, businesses shall be constantly evaluated by society if they are practicing management caring for not only the price or the quality of their products and services but also the economic, environmental and social aspects.

“The evolution of the market” and corporate management with social responsibility (Japan Association of Corporate Executives, March 2003) (Excerpt)

<The reality of evolving markets>

- Capital markets: the fast-growing SRI— In Europe and the United States, as an investment activity focusing on CSR, “Social Responsibility Investment (SRI)” is growing rapidly, mainly in Europe and the United States. In the United States, the ratio of SRI exceeds 12% of total operating assets. In Britain, due to the Amendment to the Pension Act, pension funds are shifting to SRI. Amidst the increase of foreigners’ capital holdings, executive officers in our country shall not be able to remain indifferent to SRI.
- Consumer market: the demand side takes the initiative— When the market initiative is shifting from the supply side to the demand side, along with “price” and “quality”, “CSR”, as the third element, shall increase in importance. Environment-conscious products are the forerunners of this new movement.
- Supply-chain market: Excluded if CSR is inadequate— In cases where goods are produced or sold using materials or parts with CSR issues, the responsibility extends to the manufacturer of the final goods. Therefore, suppliers are being selected under the policy that no business activities shall be conducted unless the CSR standards are met. Today, when the supply chain is worldwide, Japanese companies are no exception. Regardless of the size of business, CSR has become a key task for all companies to fulfill.
- Labor market: To attract excellent human resources— For those who have attained

“economic affluence”, the meaning of work is not just to make a living. Among the graduates of business school in Western countries, there is a growing tendency to seek CSR as a critical element for selecting a company. In Japan, too, from a perspective of attracting excellent human resources, CSR efforts are greatly desired in terms of recruiting diverse human resources and realizing a work environment where those people can exert their ability to the fullest.

2) Effective use of natural resources and the importance of the role to be played in establishing a recycling-oriented society

In the course of conventional economic activities based on mass-production/consumption/disposal, Japan is currently facing various problems such as a shortage of final disposal facilities and concerns over the depletion of natural resources worldwide. Such environmental and resource constraints could lead to constraints on economic activities in the future.

Therefore, the formation of a recycling-oriented society where environmental conservation and economic growth go together has been recognized as Japan's important task and thus the Basic Law for Promoting the Creation of a Recycling-Oriented Society was enacted in 2000. The said law stipulates that businesses, too, have responsibilities to make efforts in establishing a recycling-oriented society in every stage of their business activities.

In addition, based on the Basic Law for Promoting the Creation of a Recycling-Oriented Society, the Basic Plan for Promoting the Creation of a Recycling-Oriented Society, that stipulates various measures to be implemented, has been formulated.

(1) Basic Law for Promoting the Creation of a Recycling-Oriented Society

Regarding responsibilities of businesses, Paragraph 1 of Article 11 of the Basic Law for Promoting the Creation of a Recycling-Oriented Society stipulates as follows:

Paragraph 1 of Article 11 of the Basic Law for Promoting the Creation of a Recycling-Oriented Society

Businesses, pursuant to the Fundamental Principles, are responsible for taking necessary measures to restrain raw materials, etc. from becoming wastes, etc. in their business activities, and when raw materials, etc. have become recyclable resources in their business activities, businesses are responsible for the appropriate recycling of such resources themselves, or for taking necessary measures so that proper recycling will be carried out, or appropriately disposing of the recyclable resources not recycled, which is their own responsibility.

(2) Basic Plan for Promoting the Creation of a Recycling-Oriented Society

The Basic Plan for Promoting the Creation of a Recycling-Oriented Society developed based on the Basic Law for Promoting the Creation of a Recycling-Oriented Society (enacted in March 2003) sets numerical targets for material flow to be tackled nationwide. By promoting the 3Rs (reduce, reuse and recycle), etc., Japan is expected to enhance resource productivity as well as recycling ratio, and to halve the volume of final disposal by the year 2010, starting in FY 2000.

Numerical targets of the Basic Plan for promoting the Creation of a Recycling-Oriented Society

< Targets of material flow in FY2010 >

i) 'input': resource productivity in FY2010: approximately 390,000 yen/ton (Increased by 40% compared to FY 2000)

* resource productivity = GDP/ Input of natural resources, etc.

ii) 'recycle': recycling ratio for FY2010: approximately 14% (Increased by 40% compared to FY 2000)

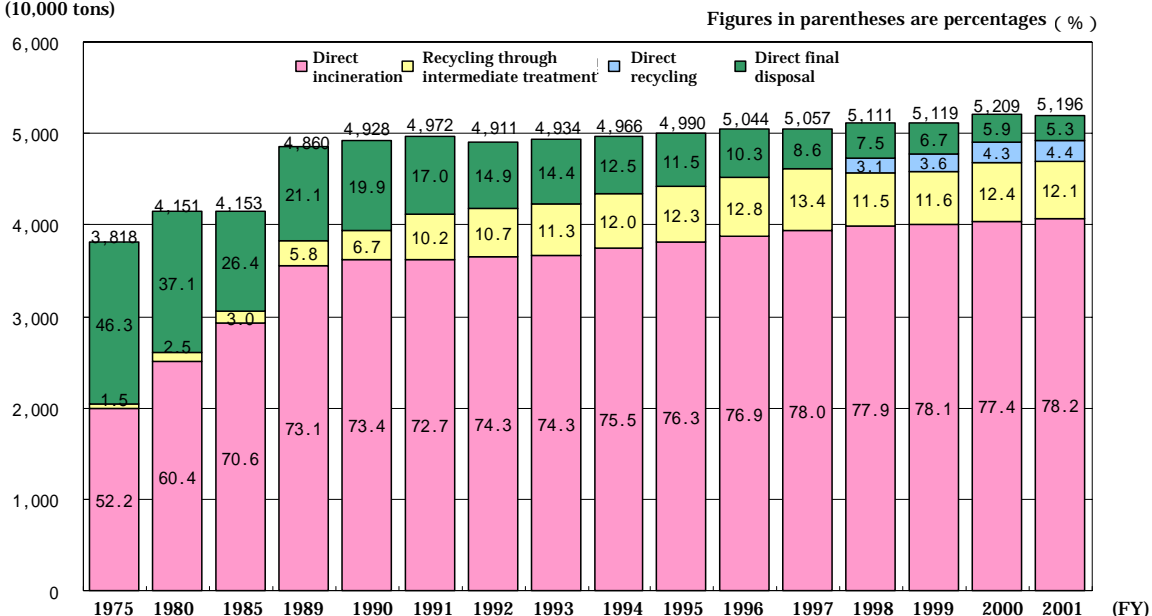
iii) 'output': the amount of final dispose for FY2010: approximately 28 million tons (reduced by half compared to FY 2000)

(3) The present situation of waste generation, disposal and recycling in Japan

[Municipal Solid Waste]

The total amount of municipal solid waste (MSW) discharged from households in FY2001 was 52.10 million tons. The total amount of MSW discharged and the per capita/day amount of discharge started to increase rapidly around FY1985, but remained almost flat during the period from FY1989 to FY2001.

Amount of MSW treated
(10,000 tons)



- Note) · Direct recycling is a category introduced in 1998, and refers to the amount of MSW that is directly delivered to recycling industries without going through recycling facilities.
 · Until FY1997, the amount of “direct recycling” was included in the amount of “recycling through intermediate treatment”.

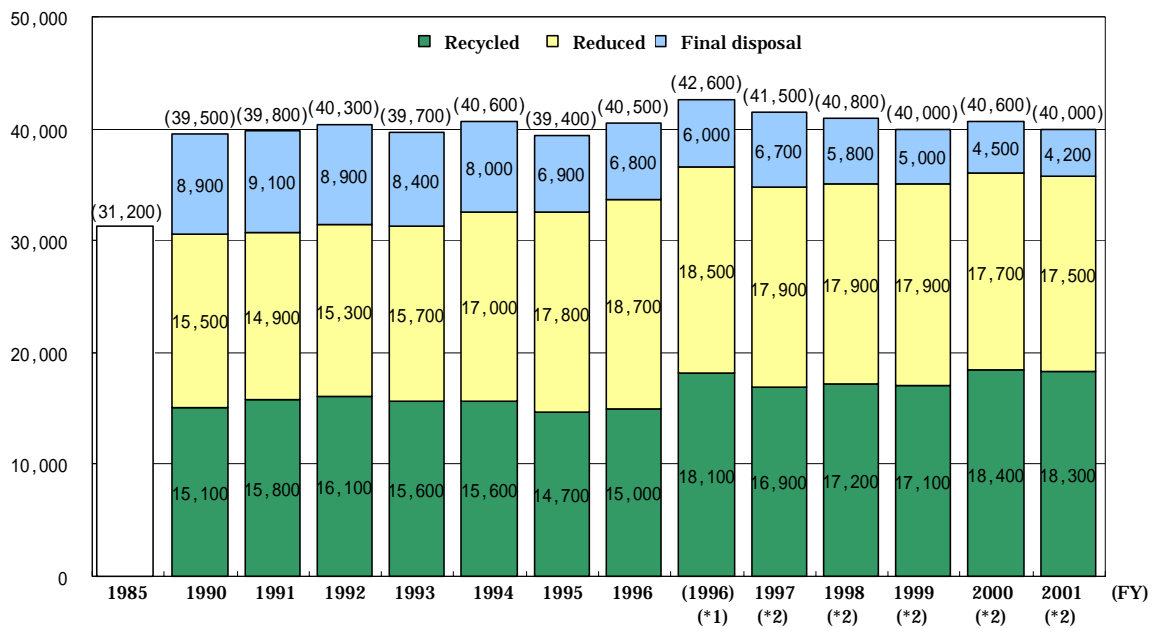
Source: Ministry of Environment, March 1, 2004 (revised)

[Industrial Waste]

The total amount of industrial waste discharged in Japan in FY 2001 was about 400 million tons, remaining almost flat since FY 1990. The amount of industrial waste recycled as well as the amount of industrial waste reduced through intermediate treatment has been increasing gradually, and therefore the amount of final disposal has been decreasing gradually.

The amount of final disposal in FY 2001 was 42 million tons and the national average number of remaining sustainable years of final disposal facilities is 4.3 years as of April 2002. Thus we are facing a severe situation. Taking into consideration such situation, Japan needs to further continue promoting the 3Rs.

Amount of discharge
(10,000 tons)



*1 The amount of discharge shown above in the amount in FY 1996 according to the “target amount of waste reduction” set by the government to be achieved by FY 2010 (decided by the government on September 28, 1999) under the Basic Policy for Measures against Dioxin (decided by the ministerial meeting on measures against dioxin).

*2 The amount of discharge for FY 1997 and after is calculated under the same conditions as the previous amount.

Source: Ministry of Environment, Discharge and Treatment of Industrial Waste (in FY2001), March 1, 2004 (revised)

3) Business management risks behind waste treatment/recycling

Many companies seem to have been working on the 3Rs by promoting zero emission, etc. However, the truth is that many of them are heavily dependent on businesses dealing with intermediate treatment and, therefore, it is called for that businesses will take more initiative in tackling proper waste treatment/recycling.

Meanwhile, waste materials, etc. discharged from businesses, have been treated and recycled through various channels. If, by any chance, some were inappropriately treated or illegally dumped because of inappropriate outsourcing, relevant businesses can be charged with a violation of the Waste Management Law, and subjected to penal servitude or fines and penalties. Furthermore, this may result in the derogation of their brand image.

In this way, businesses need to view waste management/recycling issues not just as ones to be solved by a person in charge, as in the old context, but as their managerial task and to carry out a company-wide effort with managerial involvement.

(1) The large-scale illegal waste dumping case on the border between Aomori and Iwate prefectures

The “large-scale illegal waste dumping case on the border between Aomori and Iwate prefectures”, which was uncovered in 2002, turned out to be one of the largest-scale illegal dumping cases, with the total volume amounting approximately 820,000 m³. This scale even exceeds the Teshima Island case. The investigation conducted by both Aomori and Iwate prefectures has currently revealed that more than 10,000 businesses discharging industrial waste from 22 prefectures and 18 cabinet order designated cities were involved in this case.

In this case, because the industrial-waste disposal business, which was a party to the case, was both a liquidating corporation and bankrupt corporation, the situation was such that the collection of possible costs for the investigation as well as restoring the site to its original state was least promising if both prefectures performed necessary operations for the said business. Therefore, both prefectures, with “Order for Action” and “Subrogation of administrative acts and collection of expenses” prescribed by the Waste Management Law in mind, conducted a levy report to learn whether the said business had adequately fulfilled its due responsibilities. Based on their findings, both prefectures made a public announcement of the names of businesses discharging industrial waste that had violated the Waste Management Law by having contracted out to unlicensed business dealing with collection/transportation, and issued the measure orders on the removal of the illegally dumped waste.

As stated above, those businesses that have committed an offence against the Waste Management Law shall pay a high price as a company. They will not only have to remove the waste but will suffer a severe erosion of trust.

(2) Current state concerning the increased responsibility to be borne by businesses discharging industrial waste and the future direction

“The council report on the prevention of illegal dumping and the restoration of a site to its original state” (Ministry of the Environment, July 2002) recognizes the severe nature of the current illegal dumping situation: although some cases are emerging where the measure orders are being issued by prefectural governments, accusing a discharger of not fulfilling its responsibilities without hesitation, there are still businesses discharging industrial waste that haven’t fully understood the purpose as well as the content of the law, and thus are still implementing the former, inappropriate waste treatment mechanism.

Council report on the prevention of illegal dumping and the restoration of a site to its original state (Ministry of the Environment, July 2002) (Excerpt)
(Underlined by the Waste and Recycling Subcommittee, Industrial Structure Council)

[Present circumstances]

- Concerning the management of industrial waste, amendment and tightening of the law have been annually pressed forward so as to ensure proper waste management based on the core principle of a discharger's responsibilities. Especially, the amendment made to the law in the year 2000 stipulates the duty of care for dischargers to keep a close eye on the whole course of waste management, from the generation of industrial waste to the completion of final disposal, and requires them to make an on-going commitment to monitor and supervise the waste flow to the final disposal through the control manifest in cases where waste dischargers contract out transportation or disposal of industrial waste to contractors. Meanwhile, the said Law notifies prefectural governments of "the guideline for administrative penalties", urging them to exert strict administrative penalties and as a result the issuance of the measure orders, etc. is more actively being performed by prefectural governments. As a part of this new approach, in individual illegal dumping cases as well, those waste dischargers that neglected the duty of care are being accused.
- However, there are still some waste dischargers who have not fully understood the purpose as well as the content of the law, and also due to the contracting/subcontracting structure rooted in the industry, etc., as shown in some cases where higher-ranking companies leave the treatment of industrial waste entirely to lower-ranking companies and no follow-up is provided. Thus, in some cases, waste dischargers are still implementing the former, inappropriate waste treatment mechanism.
- As a result of the increased discharger's responsibilities, those waste dischargers, who are committed to proper waste management, are now motivated to finding trusted treatment contractors and expecting that improvements in the provision of relevant information regarding trusted or untrustworthy businesses dealing with waste treatment/disposal will be forthcoming. To that end, a rating method for the said businesses is being actively discussed.

[Future direction]

- On-going commitment to increase a discharger's responsibilities is a nucleus to facilitate a structural reform concerning industrial waste management. To that end, it is necessary to conduct on-the-spot investigations of waste dischargers and promptly take administrative measures against those who don't comply with the law. Furthermore, regarding businesses targeted for the measure orders, strict measures should be taken including the public announcement of the names of not only those who actually conducted illegal dumping but also relevant waste dischargers. Public announcement of waste dischargers' names is to reflect the relevant administrative penalties. Therefore this is different from the case where arbitrariness becomes the issue such as in the announcement of administrative guidance. Such announcement is, unlike the case where arbitrary announcement of administrative guidance becomes an issue, not prejudicial to the waste dischargers and therefore, it does not require statutory grounds in ordinances or other regulations.
- For those waste dischargers who haven't fully understood the purpose as well as the content of the law, it is important once again to focus on making the law fully known to those businesses involved by creating an industry-focused guideline for practicing proper waste treatment. Regarding small-and-medium-sized waste dischargers, it is expected that industrial-waste disposal businesses can play a key role in disseminating the information about the relevant law and the control manifest management.
- Compared to the paper control manifest, the electronic control manifest has more advantages in that it quickly verifies the assuredness of the obtained information and the processing result. Therefore, it is necessary to further promote the electronic control manifest more than ever. Also, regarding the industrial waste collection/transportation

vehicle monitoring system combined with the electronic control manifest, which is to further enhance an illegal dumping preventive function incorporated in the electronic manifest, it is necessary to deepen our consideration of concrete measures to motivate and encourage waste dischargers' voluntary efforts.

- In regard to providing rating information of trusted treatment contractors to those waste dischargers that are seeking proper waste treatment, further consideration is necessary as to how to gauge the adequateness of treatment or recycling methods. Information is necessary to conduct on-site investigation assessment, information-gathering methods, and who should be a rating agency, etc.

1.2 Waste/recycling governance and roles of stakeholders

In order to address waste/recycling issues surrounding corporate management, it is necessary to expand the range of conventional waste management, to clarify roles of stakeholders and to develop “Waste/Recycling Governance.” The following presents a new concept of “Waste/Recycling Governance” and shows key points in developing the governance and specific roles of stakeholders.

1) The concept of waste/recycling governance

Businesses are now asked to view waste/recycling issues from the viewpoint of corporate management, to develop “Waste/Recycling Governance” and to fulfill their corporate social responsibility (CSR) concerning proper waste treatment/recycling by going beyond the minimum response of complying with laws, including the Waste Management Law (Law Concerning Waste Management and Public Cleansing). The development of “Waste/Recycling Governance” shall be conducive to preventing illegal dumping along with inappropriate treatment, as well as contribute to facilitate the effective utilization of natural resources and to the creation of a recycling-oriented society.

Promoting proper waste management and the 3Rs of waste and usable materials shall require businesses to develop an in-house system so as to carry out a company-wide effort as planned.

Proper waste management/recycling is not complete within a company’s management discretion, which shall thus require businesses to build an extensive system involving the businesses concerned in cooperation with businesses dealing with waste treatment/recycling, affiliates, and businesses relating to the supply chain, etc.

It is also important to further pursue a company-wide effort to provide and share information on the outcome of the business’ initiatives with customers, consumers, investors and local communities.

Making solid progress in proper waste treatment/recycling through such efforts can be viewed as “Waste/Recycling Governance” in practice.

What is “Waste/Recycling Governance”?

This is an approach to be taken by businesses (discharging industrial waste) to address waste treatment/recycling issues. In this approach, businesses (discharging industrial waste) shall carry out company-wide efforts, at all levels, concerning waste treatment/recycling, and further promote efforts by building an extensive system in cooperation with affiliates, business connections, businesses dealing with waste treatment/recycling, etc. and by providing/sharing information to/with customers, consumers, investors and local communities.

The Importance of “Waste/Recycling Governance”

Through working on the development of “Waste/Recycling Governance”, businesses are able to carry out the following:

- i) contributing towards establishing a recycle-oriented society,**
- ii) reducing business management risks by preventing inappropriate waste management,**
- iii) enhancing business worth with the improvement of brand image and thus, further fulfilling their corporate social responsibility (CSR).**

2) Key points in developing waste/recycling governance and roles of stakeholders

In order to develop “Waste/Recycling Governance”, it is essential that executive officers and the department and staff in charge of waste management at the workplace fulfill their due roles and seek two-way communication between each level.

Specifically, executive officers should present the principles of waste/recycling governance, give instructions on company-wide challenges and provide information of the results of their efforts. Furthermore, another critical managerial role is to ensure personnel as well as budgets for ensuring the proper management/recycling of their in-house waste.

(1) Roles of stakeholders

In developing “Waste/Recycling Governance”, it is essential that executive officers themselves first recognize the importance of in-house waste management, instead of merely leaving the in-house waste management/recycling to the departments and staff in charge of waste management at the workplace.

On this basis, it is critical to make the importance of building waste/recycling governance fully known to all departments and employees so that due responsibility shall be borne at each level, so as to further facilitate company-wide efforts for building “Waste/Recycling Governance”.

Furthermore, it is also important to provide information on a company’s efforts to stakeholders such as customers/consumers, investors, local communities, etc.

The following are some primary roles to be borne by each level.

<Executive officers>

- i) Setting and presenting the managerial creed towards the development of waste/recycling governance and ensuring personnel and budgets (disposal cost) for proper waste management/recycling.**
- ii) Giving instructions on company-wide challenges towards developing waste/recycling governance.**
- iii) Providing information on the outcome of their efforts related to waste/recycling governance.**

<Department in charge of waste management>

- i) Building an in-house system for facilitating waste/recycling governance**
- ii) Creating a system to grasp and gain control over the flow of waste, etc.**
- iii) Creating a system for sharing information regarding appropriate practices of appointing/contracting businesses dealing with waste treatment/recycling**
- iv) Providing education and training to employees**
- v) Building the in-house system for performance management and conducting a periodic audit.**
- vi) Creating a crisis-management system concerning waste management/recycling**

< Staff in charge of waste management at the workplace>

- i) Implementing thorough separated collection according to the situation of waste generation at the workplace, etc.**
- ii) Properly appointing waste management/recycling industries and supervising their performance on an ongoing basis.***
- iii) Issuing, cross-checking and verifying industrial-waste management form (“control manifest) on a consistent basis.**

*** Departments in charge of waste management may take over in some cases.**

(2) Two-way communication

It is important to seek two-way communication between each level, so that efforts taken at each level with specific roles can contribute to continuing enhancement of waste/recycle governance.

To be specific, executive officers should make the principle of waste/recycling governance fully known to all departments and employees, give instruction on specific roles at each level and department and issue necessary instructions based on periodic reports concerning the progress of the governance development from the department in charge of waste management.

Seeking to communicate with staff in charge of waste management at workplaces where the waste is actually being discharged, the department in charge of waste management should make the rules for securing proper waste management/recycling as well as for promoting the 3Rs fully known to each workplace, receive reports on daily on-site waste management and provide directions accordingly.

Staff in charge of waste management at the workplace should make the importance of waste/recycling issues fully known to all employees who discharge waste, etc. in the course of their business activities.

2 . Establishing in-house systems and developing rules to build waste/recycling governance

In order to establish waste/recycling governance, it is important that the department in charge of waste management takes the initiative of establishing an in-house system, setting goals, and developing a plan and in-house rules regarding waste disposal/recycling based on an on-going analysis of the current situation. Also, the department is required to work on various tasks, including appointing appropriate businesses dealing with waste treatment/recycling, drawing up contract rules, providing education and training to employees, putting together all the relevant information and feedback, conducting an internal audit, organizing and providing information, etc. Furthermore, it is important to establish a system whereby prompt actions can be taken in case of contingencies such as an accident, etc.

This chapter presents tasks and challenges that departments in charge of waste management should strive toward building waste/recycling governance.

2.1 The establishment of an in-house system to build governance

Businesses discharging industrial waste, etc. (waste and usable materials) must enhance their proper waste management and establish an in-house system so as to promote the 3Rs (reduce, reuse and recycle). With distinct responsibilities, it is critical that executive officers, departments in charge of waste management, staff in charge of waste management and all of the employees recognize the importance of developing “Waste/Recycling Governance” and incorporate an information-sharing structure into an in-house system with distinct responsibilities. In addition, it is essential to include cooperative companies, affiliates, business connections and businesses dealing with waste treatment/recycling in the framework of the governance, and to establish a collaborative system with all these stakeholders. The following shows key points for establishing a system to facilitate proper waste management.

1) In-house system to build governance

As a basic organization structure, corporate headquarters must set up a department to be in charge of company-wide waste management and make clear the scope of responsibilities and authorities of each department.

The department in charge of waste management needs to understand the flowpath of company-wide waste discharge to develop a comprehensive plan, including waste reduction, and to draw up the rules, toward enhancing the 3Rs, for separating waste materials.

Meanwhile, each store and office should appoint staff in charge of on-site waste management, take responsibility for practicing daily management, summarize performance and notify the department in charge of waste management.

In addition, it is essential to put in place a mechanism to audit the situation concerning waste management.

The system must reflect the characteristics of the businesses, including the type and the size.

(1) Basics of the in-house system

The following are some key perspectives in establishing an in-house system to build waste/recycling governance:

- Businesses must set up a department in charge of waste management at headquarters and appoint staff in charge of waste management at every store and office.
- The department in charge of waste management should develop rules regarding in-house waste management, gather/summarize and disseminate relevant information, and provide education/training, etc., as needed.
- The staff in charge of waste management at workplaces where the waste being discharged are responsible for daily management, summarizing performances and making reports to the department in charge of waste management, etc.
- Rules concerning organizations, etc. must be formulated to specify the responsibility and role to be fulfilled by each party (discretion in expenditure for contracting out waste disposal, authority in appointing a business dealing with waste treatment/recycling, etc.) toward promoting proper waste treatment/recycling.

(2) Establishment of a company-wide committee toward building waste/recycling governance

To set up a company-wide committee led by executive officers, with every operational department participating in a cross-sectional manner, is also an effective way to build waste/recycling governance.

The across-the-board committee, based on a company’s medium and long-term business scheme, discusses a medium and long-term waste management scheme formed by the

department in charge of waste management and decides company-wide challenges. Also, the company-wide committee is tasked with such activities as making departmental adjustments and discusses general guidelines, which the department in charge of waste management took the initiative in drawing up (recycling/reduction, selecting facilities/raw materials, treatment method, rules concerning contracting, etc.) Furthermore, the committee deliberates on suggestions for the resolution of problems reported in the workplace.

For instance, the following should be discussed in the across-the-board committee.

- Waste management goals
- Waste management plans
- Waste management manuals
- Education manuals concerning separated discharge, etc.
- Operation guideline regarding the Control Manifest
- Corporate responses to on-site suggestions for improvement, etc.

* It is desirable that an across-the-board committee discuss matters concerning proper waste treatment/recycling as well as the 3Rs initiative for in-house products and services.

(3) Industrial waste managers and specially controlled industrial waste managers

Businesses who have places of business equipped with a industrial waste disposal facility, specified in Article 15 of the Waste Management Law, must appoint an industrial waste manager in each place of business in order to execute its business associated with the management of industrial waste appropriately. Businesses who have places of business where specially controlled industrial waste* is generated must appoint a specially controlled industrial waste manager in each place of business.

In addition, some local governments stipulate in the ordinance that even those businesses which are not required to appoint an industrial waste manager must establish a system to assume responsibilities for proper waste separation and treatment/recycling at each workplace by appointing an appropriate person in the right position.

* Among various industrial wastes, as those with explosive, toxic and infectious properties as well as those that may cause some harm to a person's health or the living environment, specially controlled industrial wastes are those designated by the cabinet order (Article 2-4 of the Cabinet Order of Waste Management and Public Cleansing Law (Waste Management Law)) and specific kinds of waste oil, waste acid, waste alkali, waste PCB and PCB contaminated waste, etc., fall under this category.

(4) Audit structure

It is important to conduct internal audits on conditions surrounding proper waste management/recycling as well as the achievement ratio of company-wide goals.

Audit results/conclusions should be compiled in a report and provided to the managerial level as well as departments targeted for auditing. In addition, it is desirable to clearly express in the report whether there is room for improvements as a result of the audit.

2) Effective in house two-way communication

Executive officers need to clearly present the managerial creed and to give instructions on company-wide challenges toward building waste/recycling governance.

To that end, the department in charge of waste management formulates company-wide rules as well as plans/goals, and communicates with staff in charge of waste management assigned at each store/business office.

Staff in charge of waste management, assigned at each store/business office, summarize daily work processes and conditions in places where in-house waste is being generated in the course of business activities or information on the occurrence of an accident, and report to the department in charge of waste management at headquarters.

To that end, the department in charge of waste management gathers/summarizes information on the development of their efforts for waste management taken at each workplace, makes periodic reports to executive officers, and provides feedback of changes to be made, etc., to each store and business office at the same time.

It is also important that the department in charge of waste management should regularly report to executive officers on the conditions of waste management undertaken in affiliates/cooperative companies or crisis situations in the case of an accident.

By developing a system to facilitate interdepartmental collaboration and information sharing, effective two-way communication can be achieved.

(1) Communication between the department in charge of waste management and executive officers

Recognizing “corporate social responsibility”, “the importance of promoting effective use of natural resources and contributing toward building a recycling-oriented society” and “the business management risks behind waste materials”, executive officers need to present the managerial creed and give instructions on company-wide challenges toward building waste/recycling governance.

Meanwhile, the department in charge of waste management makes reports on the following to executive officers.

i) The significance of business risks concerning waste management/recycling

The negative impact on a brand image will be immense if a company is involved in illegal dumping cases, etc. Thus, the department in charge of waste management should fully explain the significance of associated managerial risks and the importance of preventing law violation. In addition, the department in charge of waste management should explain to executive officers the importance of securing necessary personnel and budget to further facilitate proper in-house waste management/recycling.

ii) Reporting on the outbreak of an accident

In cases where businesses are required to respond to emergencies, such as in cases where they become involved in illegal waste dumping or where an accident occurs in a business establishment, the said department, without delay, must notify executive officers of what happened and what responses are being taken.

iii) Periodic routine management reports

The department in charge of waste management needs to make reports to executive officers on the development and operation status of waste/recycling governance on a regular basis.

The following should be provided in connection with this.

- The volume of waste discharge
- Recycling ratio
- Degree of achievement of goals as well as matters to be changed

- Setting new objectives
- Costs required for waste treatment/recycling, etc.

iv) Reporting on affiliates/cooperative companies' undertakings

By reporting on affiliates/cooperative companies' undertakings along with a company's operation status of waste/recycling governance, businesses are able to build waste/recycling governance with greater stability.

(2) Communications between the department in charge of waste management and staff in charge of waste management at workplaces

The department in charge of waste management communicates company-wide plans/goals as well as in-house rules toward proper waste management to the staff in charge of waste management at each workplace.

Meanwhile, the staff in charge of waste management at workplaces makes report to the said department on their routine work including waste separation management, appointment of/contract and collaboration with contractors, the operation of the Control Manifest, etc.

The following should be included in reports from staff in charge of waste management.

- Entries on the control manifest
- Contractor's methods of waste treatment/recycling
- Condition of separated discharge
- Questions and requests that arise in the course of daily management, etc.

(3) Other matters to be communicated

It is important to build a system to facilitate information sharing between staff in charge of waste management at each store/business office and the department in charge of waste management concerning waste treatment/recycling technologies as well as recent developments of businesses dealing with waste treatment/recycling.

In addition, it is important that an across-the-board committee should encourage the participation of not only those departments that include workplaces generating waste, such as manufacturing, distribution and sales, but also departments of planning and procurement of raw materials. By these departments conducting business with waste management awareness, there will be a reduction in the output of waste materials, with an attendant reduction in waste management and recycling costs, which will greatly contribute to promoting the radical 3Rs initiative.

Furthermore, in order to promote the 3Rs more efficiently, it is considered effective to build a system whereby each department respectively calculates its own treatment costs, so as to become more aware of cost-efficiency.

3) Collaboration with affiliates and cooperative companies

Along with conducting proper in-house waste management on a consistent basis, it is important that businesses aspire to build “Waste/Recycling Governance” that encompasses a wide range of stakeholders, including affiliates, cooperative companies, and business connections such as suppliers and clients.

By working together with a wide range of relevant stakeholders, businesses can reduce risks of illegal dumping or inappropriate treatment of waste generated through their business activities.

While it is important that affiliates, cooperative companies, and business connections such as suppliers and clients independently strive toward building “Waste/Recycling Governance”, in order to reduce their business management risks concerning waste disposal, businesses themselves should take the initiative in assessing the “Waste/Recycling Governance”-related performance of stakeholders within the supply chain, and urge further efforts if necessary. Moreover, it is considered of value that businesses make a collaborative challenge to promote the 3Rs together with affiliates, cooperative companies and business connections, and share information, etc., on waste management/recycling technologies, and new business developments in dealing with waste treatment/recycling.

4) Collaboration with businesses dealing with waste treatment/recycling

In order to further facilitate proper waste treatment as well as the 3Rs, it is important that businesses discharging industrial waste acknowledge businesses dealing with waste treatment/recycling as their core partner in building waste/recycling governance and thus strengthen cooperation.

In particular, it is desirable to exchange opinions regarding better ways of separated collection or waste treatment/recycling.

Also, businesses discharging industrial waste must provide information on the characteristics or hazardous nature of the waste to contracted businesses dealing with waste treatment/recycling in order to secure an environment where they can perform their services safely.

(1) The importance of building a partnership

Businesses discharging industrial waste cannot fulfill their responsibility just by handing over the waste materials, etc., to contracted waste treatment/recycling corporations. It is important that businesses discharging industrial waste acknowledge businesses dealing with waste treatment/recycling as their core partner in building waste/recycling governance and offer opportunities to exchange opinions with them. By enhancing the partnership with businesses dealing with waste treatment/recycling, better ways of separated collection or waste treatment/recycling shall come into the picture so that businesses can further facilitate proper waste treatment as well as the 3Rs.

(2) Building a cooperative organization consisting of businesses dealing with waste treatment/recycling that they do business with

In order to build a partnership with contractors efficaciously, it is also effective to set up a cooperative organization consisting of businesses dealing with waste treatment/recycling that they do business with.

(3) Collaborative work with businesses dealing with waste treatment/recycling

By developing in-house operation procedures, manuals, and forms together with contracted businesses dealing with waste treatment/recycling, an organic collaboration and link with these businesses shall become possible, including utilizing their know-how for the company’s waste management.

(4) Providing information on characteristics, etc., of the waste

Businesses dealing with waste treatment/recycling are constantly seeking information on characteristics, etc., of the waste that they accept, in order to secure the safety of the operation or to choose a better means of waste treatment/recycling. Businesses discharging industrial waste need to understand the characteristics, etc., of the waste and to provide complete information to businesses dealing with waste treatment/recycling.

2.2 Understanding the current flow of waste materials that they discharge and setting the goals/rules

Depending on the type or the size of business, a wide variety of waste materials are being discharged in varying amounts, characteristics and forms. Precisely understanding the current status of discharge and treatment/recycling of waste materials is the foremost and fundamental thing for goal-setting, and is also very useful in making the contract with contractors fairer, in that it presents the actual conditions.

1) Understanding the current flow of waste materials

Depending on the type and size of business, a wide variety of waste materials are being discharged in varying amounts, characteristics and forms. Precisely understanding the current status of waste discharge should serve as the initial step to promote measures toward reducing, reusing and recycling.

Therefore, businesses discharging industrial waste first need to know the current flow of waste materials related to their business activities: when, where, what kind of and how much waste materials are being generated and how they are treated/recycled.

(1) Items that need to be understood

According to waste category, it is necessary to understand the volume, frequency, location, method, performer and the end use/clients (in the case of reuse/recycling) in each process of generation, storage, collection/transportation, treatment/recycling and final disposal of wastes.

(2) Grasping the scope of the issue

It is important that businesses should strive to understand not only the flow of the waste discharged from their business activities but also all the waste materials (e.g., packing materials for in-house products, out-of-date products) generated in businesses relating to the supply chain (business connections such as material procurement and distribution and sales) as well as those generated in the course of business activities of affiliates or cooperative companies.

(3) Classification of waste materials

Rough classification of waste materials such as inflammable materials or nonflammables is not sufficient and makes it difficult to discuss and implement measures for waste management/recycling.

As the type and circumstances in which waste is generated vary according to the type of business, those businesses discharging industrial waste should further classify the waste materials into smaller categories according to the actual state and flow of the in-house waste as shown below.

Example of classification of wastes

- styrofoam, waste polyethylene sheet, polyvinyl-chloride pipe, etc.
- iron scrap generated in manufacturing process, aluminum can, steel can, etc.
- office paper, newspaper/magazines, cardboard, paper cup, etc.

(4) Envisioning the present situation

To understand the actual status: how the waste materials are separately discharged, treated/recycled, it is necessary to gather information from each workplace that understands how the waste is actually being discharged.

The department in charge of waste management should receive a report from each workplace on the current flow of waste materials and understand: i) the condition of waste discharge, ii) the actual treatment/recycling situation, etc. The interview with

contracted businesses dealing with waste treatment/recycling should be conducted if necessary.

Specifically speaking, it is necessary to understand the following items.

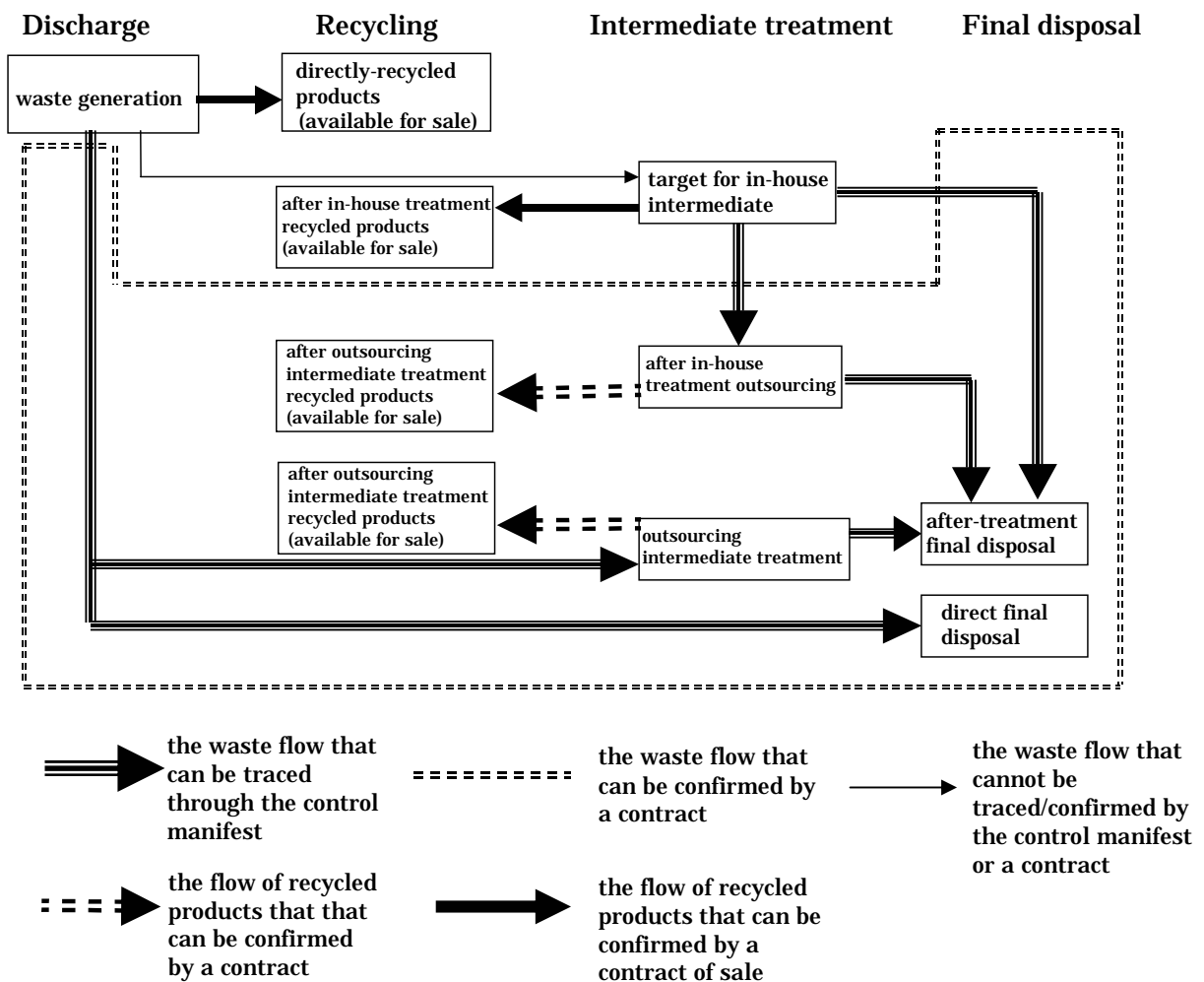
i) Situation of waste discharge

- site of discharge (stores, offices, etc.)
- waste category
- volume of discharge
- frequency
- staff in charge at workplaces
- contractors for waste collection services, etc.

ii) Situation of waste treatment/recycling

- kind or type of waste materials
- volume of consigned waste
- frequency of collection
- contractors for waste collection services, intermediate treatment and final disposal
- waste treatment/recycling methods/technologies
- incinerated residue, recycled products, etc.
- amount of final disposal, etc.

As a reference, the following diagram shows the flowpath of wastes.



(Reference) Effective way of understanding the present situation

In understanding the present situation, it is desired that the waste materials generated in not only the company (headquarters, offices, etc.) itself but also affiliates, cooperative companies and business connections should be extensively included according to a wide variety of waste materials. In order to understand the flow of waste discharge, it is, therefore, necessary to enlist cooperation from relative stakeholders, as many as possible, and is desirable to do so in an effective way (preparation, sharing information, etc.) as much as possible.

i) Designing a survey sheet

In understanding the flow of waste materials, the department in charge of waste management needs to set an appropriate scope of control, to properly classify waste materials, and to design a survey sheet. In doing so, it is important that the department in charge fully understands business contents of each office, all the information described in the Manifesto, which should be kept at headquarters and each workplace and information on the performance of contracted businesses dealing with waste treatment/recycling, etc.

It is also beneficial to conduct a pre-survey by choosing a representative sampling office, to pick out problems in understanding the present situation and then to reflect them in the survey sheet.

ii) Sharing information

The following information should be shared between the department and staff in charge of waste management so as to effectively understand the situation.

• Information described in the Manifesto

The means of effectively utilizing the information described in the Manifesto must be presented to the staff in charge of waste management at each workplace. In cases where headquarters are centralizing the operation and control of the Manifesto, they should consider sharing the relevant data for understanding the present situation with the staff in charge of waste management at a relevant workplace.

• Information on businesses dealing with waste treatment/recycling

In cases where a number of business offices are outsourcing to the same business dealing with waste treatment/recycling, it is very beneficial to share information on methods of intermediate treatment, recycling rate, uses of the recycled products, disposal cost, etc., so as to effectively understand the present situation.

In cases where each office is outsourcing to a different business dealing with waste treatment/recycling, it is also important to share information on those contractors.

The use of a unified form shall lead to effective information sharing.

2) Setting a direction (goals)

The department in charge of waste management receives a report on the current flow of waste materials, etc., and sets a direction for the future and goals to be met as businesses discharging industrial waste.

Goals at each workplace should be set at the same time.

In some cases, it is required by law or regulation (ordinance) to develop a plan.

(1) Setting a clear direction and goals

Based on a clear understanding of the current in-house waste situation, it is essential to set a direction and goals toward building the waste/recycling governance.

(2) Goal-setting at each workplace

Based on the findings on the flow of in-house waste material, it is important that the department in charge of waste management set standards for achieving desirable results based on the degree to which treatment in each location has been effective.

According to company-wide direction and goals, specific objectives at workplaces including business offices, stores, etc. should be defined.

(3) Businesses discharging a large quantity of waste

Based on the Waste Management Law, businesses who discharge industrial waste abundantly, exceeding the specified level, must submit a plan to reduce waste discharge to prefectural governors. Some local governments stipulate in the ordinance that even those businesses who don't fall under this category must formulate a plan to reduce waste discharge.

Also, based on the Law for Promotion of Effective Utilization of Resources, businesses that fall under the category of designated resources-saving industry or designated resources-reutilizing industry as well as those who generate specified by-product are required to draw up a plan on preventing byproducts or promoting utilization of recycled resources.

3) Formulating rules regarding waste management/recycling

In order to carry out a company-wide challenge for proper waste management/recycling, it is important to draw up in-house rules to clearly show key points and procedures that are necessary to adhere to the Waste Management Law and to promote the 3Rs.

In particular, it is required to develop rules regarding in-house waste management and a manual on separated collection.

(1) Matters to be laid down

In-house rules regarding proper waste management/recycling should include the following points.

- Key points necessary to follow the Waste Management Law, etc.
- Requisite points in promoting the 3Rs (especially, separated discharge procedure, waste category, disposal, storage place, etc.)

(2) Documents, etc. used in drawing up rules

In order to develop in-house rules, etc., it is desirable to create the following documents

i) Management manual

- In-house waste management system and shared responsibility rules
- Rules regarding waste storage
- Rules on contracts with businesses dealing with waste treatment/recycling
- Rules on daily reports
- Rules on responses taken in case of an accident
- Various forms (contracts, the control manifest, etc.), etc.

ii) Education manual for staff in charge of waste management at the workplace

- Legal knowledge (compliance and penalties, etc.)
- Matters related to contracts with businesses dealing with waste treatment/recycling
- Regulations regarding the operation of the control manifest system, etc.

iii) Education manual for all the staff members

- the importance of promoting the 3Rs
- 3Rs and separated discharge
- methods of separated discharge(sorting out wastes, etc.), etc.

iv) The control manifest operation rules

- rules on the delivery of the control manifest
- rules on the inquiry and confirmation of the control manifest
- rules on manifest storage

2.3 Appointments and contacts with businesses dealing with waste treatment/recycling as well as the operation of control manifest

In order to carry out proper industrial waste management/recycling, it is important to appropriately select and contract with businesses dealing with waste treatment/recycling, and it is important to optimize information to that end.

In particular, it is important not only to make a checklist of businesses dealing with waste treatment/recycling and rules regarding the management of control manifest, but also to expedite the gathering of information on relevant businesses.

1) Developing rules regarding appointments and contracts for businesses dealing with waste treatment/recycling

It is essential to formulate proper in-house rules to appropriately select and make an agreement with contracted businesses dealing with waste treatment/recycling.

By making a checklist used as a guideline for appointments as well as formulating internal rules for selecting an appropriate contracted business, so that the company is able to appoint and make an agreement with a contractor more efficiently.

(1) Outsourcing criteria

Regarding outsourcing criteria for industrial waste disposal, Paragraph 4 of Article 12 of the Waste Management Law and Article 6-2 of the Cabinet Order of Waste Management Law stipulates the following.

Article 6-2 (Excerpts) of Cabinet Order of the Waste Management Law

- 1) The person commissioned shall be a person who is able to undertake the transport of someone else's industrial waste as a business and whose scope of business encompasses the transport of the industrial waste which he is to be commissioned to perform.
- 2) A written commissioning contract shall be concluded, and that written contract shall include the following particulars* as well as be attached to the documents specified by the Ordinance of the Ministry of the Environment.
- 3) Commission of authority as well as a copy of the document prescribed by the same item shall be kept for the period specified by the Ordinance of the Ministry of the Environment (five years) from the day that consent was given.

* Please refer to *3.2 6) Appropriate contracts (and how to proceed with them)

Also, as for outsourcing criteria for municipal solid waste, Paragraph 7 of Article 6-2 of the Waste Management Law and Article 4-4 of the Cabinet Order of Waste Management Law stipulates the following.

Article 4-4 of the Cabinet Order of Waste Management Law

- 1) The person commissioned shall be a person who is able to undertake the transport, disposal or recycling of someone else's municipal solid waste as a business and whose scope of business encompasses the transport, disposal or recycling of municipal solid waste which he is to be commissioned to perform.
- 2) The person to be commissioned to transport, dispose of or recycle specially controlled municipal solid waste shall be given written advance notice of the kind of specially controlled municipal waste to be committed to the said person, its quantity and nature and other particulars prescribed by the Ordinance of the Ministry of the environment.

In addition, regarding contract criteria, the following items are also prescribed by ordinance.

- Particulars concerning the contract with contractors (Written contracts must be respectively exchanged with businesses dealing with waste collection and transport/those dealing with waste treatment/recycling) (a bulk contract will suffice provided that the said contractor has licenses for both collection/transportation as well as intermediate treatment services, etc.)
- - Particulars regarding prohibition (in principle) of contractor's re-commission for service (Paragraph 14 of Article 7 of the Waste Management Law, Paragraph 14 of Article 14 of the Waste Management Law, Paragraph 14 of Article 14-4 of the Waste Management Law)

(2) Appointing businesses with waste treatment/recycling

i) Gathering information on businesses dealing with waste treatment/recycling

Concerning contracts with businesses dealing with waste treatment/recycling, the following research investigations should be conducted to gather information on those businesses dealing with waste treatment/recycling.

- **Inquiry to local governments**
Collecting information regarding licensing, administrative punishments, etc., of businesses dealing with waste treatment/recycling
- **Document check**
Asking businesses dealing with waste treatment/recycling to submit required documents and checking the content. Some of the items that are desirable to be checked are: licensing for business/facilities, the waste management system, responses to environmental control, financial management, etc.
- **On-site investigation**
Visiting facilities, etc., of businesses dealing with waste treatment/recycling to check the condition of facilities, the performance of waste treatment/recycling and how documents (contracts, manifestos, etc.) are filed and stored.
- **Checking with residents living in the vicinity**
Checking with residents living in the vicinity of waste disposal facilities about the reputation in the area, the presence of odor, vibration, noise, etc.

In cases where the said businesses themselves are not able to complete necessary inquiries and investigations as stated above, they can consider using representative investigation services provided by research companies for businesses dealing with waste treatment/recycling as an optional extra *.

* Even if they use representative investigation services, they must be aware that the responsibility as the business discharging industrial waste still lies with them.

ii) In-house qualification system for appointing contractors

It is also effective to formulate rules on an in-house qualification system whereby contractors can be selected.

This system aims to enable a complete field survey as well as equalizing checking/investigation competencies. Also, fluctuating survey results, etc., can be avoided by conducting field surveys, etc., with semi-fixed members.

Therefore, there are some companies who establish in-house qualification systems for investigation staff and strive to enhance their skills through lectures as well as hands-on training.

(3) Follow-up after conclusion of a contract

It is necessary to continue to verify that due practice is being carried out as per the agreement after conclusion of a contract with businesses dealing with waste

treatment/recycling.

As for matters to be regularly verified, license expiry date, license renewal timing, change of final disposal sites, etc., should be included.

Especially in the case of expiring license, it is necessary to confirm with contractors how a license renewal is being processed. In cases where waste disposal was rendered to a contracted business with an expired license, the party who commissioned the said business shall be accused of violating the provisions that prohibit contracting out to an unlicensed business as stipulated in the Waste Management Law.

It is also desirable that an on-site investigation of a contractor's business facilities should be conducted once or twice a year even after the conclusion of a contract.

(4) Items that are desirable to be checked

As reference, the following page shows items that are desirable to be checked in selecting an appropriate business dealing with intermediate waste treatment.

- * Presently, in the Promotion Project for Enhancing Industrial Waste Management Service led by the Ministry of the Environment, building an information disclosure system to make information regarding evaluation criteria regarding the quality of industrial waste management service as well as business entities conforming to the criteria available to public is actively being discussed. It is thus desirable to effectively use the evaluation results in appointing an appropriate business dealing with waste treatment/recycling and in selecting advisable points to be verified.

Table: Checklist of important points to confirm when assessing intermediate-stage waste-management contractors

Major Issues	Lesser Issues	Required by law	Checklist item	Checklist	Confirmation method(s)				
					City	Doc. Check	On-site check	Locals	
Permit	Business permit		Consigned waste material is registered to be dealt with.						
	Facility permit		Permit is valid through the handling period. Is the waste management facility licensed for the industrial waste to be handled? Target facility type and scale are covered by Article 15 of the appropriate Law. There is a truck scale.						
Facilities	Status of facilities		Area dealing with waste materials is all paved. Most work is structured to take place inside. Anti-dust equipment, such as ventilators and dust-collection systems, are in place. There is a drainage system on-site. Waste water passes through grease-trap and sedimentary-layer systems.						
		Management status inside facility		No bad odors emitted. No visible dispersal of waste materials throughout the facility site.					
			Situation outside facility		No visible dispersal of waste materials outside the facility.				
		Storage facilities			Transshipment and/or storage permits obtained from prefectural governor or other authority. Storage configuration (enclosure, etc.) conforms to storage standards. Signboards indicating locations of transshipment/storage areas are on site. Stored quantities are appropriate for storage capacity (not over-filled). Waste materials stacked up outside are within height limits. No unpermitted waste materials are in storage.				
				Management of accepted waste		The content of all waste materials brought in is confirmed on acceptance to the site. Accepted waste materials are stored in conformity with relevant laws. Waste storage areas are defined and their boundaries clearly indicated. Waste is not stored outside these storage areas. Waste is not stacked up higher than fences. Measures to ensure the clear separation of waste are implemented, so as to facilitate processing. A system capable of analyzing the nature of accepted waste materials is in place.			
	Abs. value of throughput				Annual throughput is compared with processing capacity etc., and is appropriate. Verifiable that actual waste processing does not exceed the processing capacity deemed in the permit.				
	Processing methods			Facilities are appropriate for the said waste-management contractor's processing methods. Post-processing waste is stored indoors when its condition so requires. All the business clients of collected waste can be confirmed.					
		Stability of post-processing detritus		It can be confirmed that the party dealing with detritus designated for incineration has the capacity to accept it on a stable basis. It can be confirmed that detritus designated for landfill can be disposed of on a stable basis over the next year.					
	Retention facilities			Retention facilities have sufficient capacity, in line with their waste-processing throughput, in the case of mixed construction waste materials, is the appropriate sorting equipment in place.					
	Management confirmation	Admin. guidance		Administrative guidance has been carried out in the last 5 years.					
Environmental measures	Meeting environmental regulations		No problems exist with vibration, noise or foul odors. To prevent pollution, an impermeable base is installed along with the drainage equipment. To prevent dust, a water-spraying system is installed. Wastewater is not contaminated. In the case that equipment releases exhaust gas, it complies with the state or municipality's regulatory standards. (In the case of incineration equipment) Dioxin density falls below standard levels.						
		Financial control	Accounting		Accounting domains are clearly delineated for each industrial-waste treatment section. Waste treatment costs can be explained in general terms. Waste treatment costs do not differ substantially from those of other similar businesses in the same area. Financial statements are updated.				
				Accounting fundamentals		Retain the funds required to deal with untreated waste materials. Liabilities do not exceed assets.			
		Office management	Contracts		Contracts have been made in writing with all waste consigners. The contract is not based on recommissioning. Using contract documentation that complies with Article 8-4, Paragraph 2 of the Waste Management Regulations. The contract is retained for 5 years.				
Manifests				Able to confirm that a manifest is being used for all industrial-waste materials. A manifest in compliance with Article 8-21 of the Regulations is being used. The manifest is retained for 5 years. Delivery and return of the manifest are carried out appropriately. Using an electronic manifest.					
	Account ledgers				Using an account ledger that complies with Article 10-8, Paragraph 1 of the Waste Management Regulations. Account ledgers are retained for 5 years.				
Records			It can be confirmed that the Daily Labor Report is completed every day. A crisis-management manual has been created, and staff understand it.						
Crisis management	Establishment of crisis-management system			A system for emergency contacts has been created. In order to respond to environmental pollution and disasters, measures to take out environmental insurance are in place. Emergency drills are conducted at regular intervals. Each type of record and material is prepared and available for rapid dissemination when needed.					
		Information disclosure	Approach to information disclosure		Account ledgers are in a disclosable state. The inside of the facilities are open to outside stakeholders.				
Relations with local residents				If a party to a public-hazard prevention convention or environmental-protection convention, is it abiding by this/these. Holding regular meetings with local residents. No anti-facility signage is on display.					
	Personnel management	Framework for staff relations		Staff card-based workplace management is being carried out; furthermore, a framework for staff duties has been established. Staff benefit packages are being maintained. Staff turnover is not at a high level.					
Staff morale, attitude				Staff greet customers properly. Service uniform and hat, with good grooming and appearance.					
			Training		Staff have undergone at least 1 internal or external training session about waste materials (laws and technology) in the last year. With waste-management work, the necessary qualified workers are employed, or training for the relevant qualification is taking place.				
Engineering manager				The engineering manager is always on site. The engineering manager is fully familiar with equipment maintenance procedures.					
Procedure manual			A procedure manual designating waste-management work and machinery operation exists.						
Other	Executives' morale		Executive workers have a full understanding of business operation and are able to explain it in a proactive way. They are able to express clearly the goals and management concepts of the business.						
		Maintenance of facilities		Maintenance of offices, storage buildings and so on is being carried out appropriately.					

2) Optimizing information on businesses dealing with waste treatment/recycling

In order for businesses discharging industrial waste to properly appoint a business dealing with waste treatment/recycling, it is important to build a favorable partnership with contractors. At the same time, it is also beneficial to gather information on possible businesses dealing with waste treatment/recycling as much as possible.

Thus, it is essential to exchange information with local governments, businesses dealing with waste treatment/recycling, etc. Moreover, it is important to build a system in which the information can be effectively shared and utilized in the company.

(1) Source of information on businesses dealing with waste treatment/recycling

- **Local governments**

Information on licensing, administrative punishment, etc. can be referred to. It is desirable to make an inquiry before deciding on a contractor.

Prefectural governments, cities with healthcare centers and cabinet-order designated cities have authorization to grant a license to business/facilities for industrial waste disposal as well as to facilities for municipal solid waste disposal. Regarding licensing business for municipal solid waste disposal, municipalities are authorized to grant a license.

- **Businesses dealing with waste treatment/recycling with companies that do business with industrial waste disposal contractor industry groups in the region**

It is possible that such businesses or the industry group have information on the industry's market quotation and the latest developments.

- **Peer companies discharging waste**

Information on businesses dealing with waste treatment/recycling, etc., can be exchanged with each other. However, it is important to bear in mind that not all the waste-management and recycling companies contracted by major companies are necessarily of a high standard.

- **Contracting specialist research companies**

Companies rendering representative investigation services regarding businesses dealing with waste treatment/recycling have emerged in recent years, and it is thus considered efficient to utilize services of that sort. However, even if utilizing representative investigation services, a company must be aware that the responsibility, as a business discharging industrial waste, still lies with them.

- * It is important that businesses discharging industrial waste themselves collect information on business dealing with waste treatment/recycling. At the same time, those businesses dealing with waste treatment/recycling are also expected to provide a company's information to relevant businesses discharging industrial waste. Also, it is desirable that local governments improve a system whereby information on businesses dealing with waste treatment/recycling can be easily accessed.

(2) Utilization of the information on businesses dealing with waste treatment/recycling

In order to properly appoint a business dealing with waste treatment/recycling, it is important to effectively share the information on contractors in the company.

It is believed useful to build information-sharing systems between the department and staff in charge of waste management, and among various work fronts so as to effectively utilize the information collected in the department in charge of waste management.

In addition to those obtained externally from other sources, the information on contractors can be also collected and stored in the course of daily in-house waste management. Therefore, the department in charge of waste management is required to formulate a registration form or on-line input rules to help collect and summarize this extensive inflow of information.

3) Formulating the regulations regarding the control manifest management

The industrial waste management form (control manifest) system is a system stipulated by the Waste Management Law. Under the provisions of this law, businesses discharging industrial waste are required to issue the control manifest to a contractor, and to confirm, to the final disposal stage, that the industrial waste they consigned to the business dealing with waste treatment/recycling has been appropriately treated as per contract, through accepting the returned copy of control manifest.

The department in charge of waste management should first decide the form of the control manifest and formulate regulations including the deliverer's qualifications, what to enter on the form, etc., for the control manifest issuance.

Also, it is important to have internal rules formulated regarding the management of the control manifest, measures to be taken in cases where the control manifest is not returned within the specified period, the practice of thorough cross-check/confirmation and responses in the event of the returned control manifest with false data, etc.

Furthermore, it is necessary to decide where and how to keep the complete, problem-free control manifest after being checked.

Instead of the paper control manifest, it is also desirable to consider the use of the electronic control manifest, which should enable the manifest system to be more efficient and more reliable.

(1) Preparation and issuance of the control manifest

Businesses discharging industrial waste should prepare the control manifest themselves. The National Federation of Industrial Waste Management Association sells control manifest forms compliant with the provisions of the Waste Management Law. There are other types of control manifest independently made by the industry group or respective businesses discharging industrial waste in response to each condition of their industrial waste generation, etc. However, it is necessary to look carefully before using them to check whether all the requisite entries stipulated in the provisions of the Waste Management Law are included. In addition, it is desirable that the same business (company) discharging industrial waste should be using the same form of control manifest for the increased efficiency in performance management, etc.

Based on this understanding as mentioned above, the department in charge of waste management must organize and improve in-house regulations regarding preparation and issuance of the control manifest, its form, regulations on delivering the control manifest to contractors and responses to cases where the control manifest was unused and not returned within a specified period.

(2) Issuance of the control manifest

The control manifest must be prepared and filled out completely by businesses discharging industrial waste, including the kind and amount of the waste, and must be delivered to businesses dealing with collection and transfer with the consigned waste. A set of control manifest, by category and by destination (where the consigned waste is transferred to) of the consigned industrial waste, must be issued and delivered every time the consigned industrial waste is handed over.

In cases where businesses discharging industrial waste did not properly issue the control manifest or issued false control manifest, the said business entity shall be subjected to administrative punishments or penalties.

Therefore, it is important that the department in charge of waste management clearly specify in-house rules regarding the qualification of the control manifest issuer and entries on the control manifest, etc.

(3) The management of the control manifest and responses to the cases where the control manifest is not returned within the specified period

Businesses discharging industrial waste must receive the returned control manifest within the period specified by the Waste Management Law. Until all the sheets are returned including sheet-B2, D and E, the whole procedure of the manifest system is not complete. It is, thus, important that the department in charge of waste management should enhance the relevant in-house rules regarding the following:

- Means of issuing of warnings concerning the control manifest with looming due or the overdue control manifest
- Measures to be taken in cases where there is some control manifest with looming due or overdue.

Especially, concerning the time limit for the returned control manifest, it is essential to build a system whereby confirmations, instructions or reminders are to be sent to the relevant businesses dealing with waste collection and transfer or those dealing with waste treatment/recycling prior to the expiry of the period specified by the Waste Management Law in terms of the reduction of inappropriate waste management risk. It is also effective to build a warning system for notifying the due of the control manifest to be returned in the IT-Tools such as an intranet, etc.

Table: the Specified Period for the respective sheets of control manifest (copy, sheet-B2, sheet-D and sheet-E) to be returned

Control manifest	Industrial waste	Specially controlled industrial waste
• sheet-B2, D	90 days from the day of delivery	60 days from the day of delivery
• sheet-E	180 days from the day of delivery	180 days from the day of delivery

(4) Practice of thorough cross-check/confirmation and responses in the event of a false control manifest, etc.

The control manifest-B2, D and E, which are returned to businesses discharging industrial waste, must be cross-checked and confirmed whether the collection and transfer, treatment/recycling of consigned waste have been appropriately managed as contracted.

Concerning cross-check/confirmation of the returned control manifest, it is important to enhance the relevant in-house rules regarding the following.

- Where the control manifest should be returned to (whether the control manifest should be returned to one central location within a company or to each site where the waste is being discharged)
- The person who is to cross-check/confirm the returned control manifest
- Concrete items to be cross-checked/confirmed
- Measures to be taken in the event of the false control manifest, etc.

In the case the issuer receives a copy of the control manifest, in which the particulars specified by the Waste Management Law, or a copy of the control manifest, in which false information is entered, there is a possibility that the industrial waste discharged from a company may have been inappropriately disposed/treated. In such cases, the said business must first verify the conditions of collection/transportation and treatment by checking with, giving instructions to and reminding businesses dealing with waste collection and transportation or those with waste treatment/recycling, and then take measures necessary to eliminate and prevent obstacles in maintaining the living

environment. Moreover, within 30 days, they must report to a jurisdictional prefecture, etc., what measures taken in conformity to the Waste Management Law.

In cases where a business neglects to verify entries on the control manifest, leaving the situations as they are such as “matters specified in the Waste Management Law are not entered” or “false entries are found”, and neglects to take any necessary measures, including verification, instruction or reminders, against businesses dealing with waste collection/transportation or those dealing with waste treatment/recycling, and if the relevant consigned industrial waste was inappropriately treated or illegally dumped, the said business will also be subjected to administrative penalties: the measure order on removal or the like of difficulty shall be issued.

(5) Storage

It is necessary to enhance the relevant in-house rules to appropriately store complete control manifest after thoroughly cross-checked/confirmed while keeping the following in mind.

- Storage-place of the control manifest (either keeping them in an integrated fashion within a company or keeping them in sites where the waste is actually being discharged)
- Storage method that enables quick reference to the control manifest of the past (Filing system, etc.)

The control manifest is the only tool whereby a company can trace, determine the location of the industrial waste discharged from their business activities. It is, thus, important to bring together all the information to make it available at any given time if needed to be referred to. For instance, in cases where the license for contracted business dealing with industrial waste disposal has expired, the condition of the industrial waste consigned to the relevant business can be traced and verified.

2.4 Educational/enlightenment activities toward building governance

Waste materials are being generated in the course of any level and stage of business activities. It is, therefore, difficult that the department and staff in charge of waste management are to be the sole bearer of responsibility for proper in-house waste management.

In order to realize the waste/recycling governance, it is important to provide education to not only the staff person in charge of waste management but also all employees so as to encourage the enhanced awareness and proper waste management/recycling at each workplace on a consistent basis.

If the flowpath and the importance of waste management/recycling is disseminated and known throughout the staff members of the whole company by providing employee education/training, an all-hands-on waste management/recycling system can be established to build waste/recycling governance on a higher level.

* It is desirable that some of this chapter should be shared with the staff in charge of waste management at each workplace.

1) Particulars to be focused in education/enlightenment

Emphasis in the employee education should be placed on: a company-wide policy and goals on waste management/recycling, the importance of selectively discharging waste, the mind-set and roles to be carried to be fulfilled by each staff member for building the waste/recycling governance and in-house rules.

(1) Company-wide policies and goals on waste management/recycling

It is necessary that the company principle presented by executive officers regarding in-house waste management/recycling should be announced publicly and internally so as to ensure all the employees to be aware of. In addition, it is important to make the plan and goals developed by the department in charge of waste management to be fully known to all employees. In doing so, all the employees must be reminded of that proper waste management is a company's responsibility specified by law.

(2) The importance of selectively discharging waste

In order for the employees who actually discharge waste to fully recognize the importance of separating the waste, it is important to show them clearly why it is necessary to separate the waste and how those separated wastes are to be treated /recycled. Then, instructions should be provide to employees so as to ensure that every staff member properly separates the waste according to rules made by the staff in charge of waste management at each workplace.

(3) Individual roles and in-house rules

It is desirable to make sure that in-house waste management shall be properly carried out at each workplace by presenting a company structure and in-house rules toward building waste/recycling governance.

2) Developing education manuals

In order to develop education manuals, the important tool in providing employee education, businesses discharging industrial waste should first discuss what should be included in each manual according to the target workplace and employees.

In particular, it is effective to make separate manuals for the staff in charge of waste management at workplace and for all the employees.

Manuals for the staff in charge of waste management should include legal knowledge, particulars concerning subcontracting and the MANIFEST operation, etc. It is also effective to show instruction to be given to employees as well as individual roles together with those particulars listed as above.

Manuals for all the employees should include rules and mind-sets on the in-house waste management/recycling, in-house rules on separating the waste and individual role, etc.

(1) Manuals for the staff in charge of waste management at the workplace

It is especially important to include particulars that should not be overlooked in terms of compliance. In addition, it should be also effective to present instruction to be given to employees as well as individual roles in the manual.

The following shows some examples to be included in manuals for the staff in charge of waste management at workplaces.

- Particulars regarding a company structure toward building waste/recycling governance
- legal knowledge (compliance requirements, penalties, etc.)
- particulars regarding contracting with businesses dealing with waste treatment/recycling
- regulations regarding the operation of control manifest
- rules regarding daily reports
- rules in case of an accident
- company-wide rules on waste management/recycling
- instructions to be given out to employees
- individual roles, etc.

(2) Company-wide manuals

Manuals for all the employees should focus particularly on the need-to-knows in handling the industrial waste, etc. It is desirable to utilize illustrations and photographs as needed to make it an easy-to-follow, user-friendly manual. It is also important to make the content of the manual fully known to employees by organizing workshops, etc.

The following shows some examples to be included in manuals for all the employees.

- Company principles for waste/recycling issues
- Rules about selectively discharging waste, treatment and recycling
- How the waste is being treated/recycled according to waste category
- Layout and explanation of the waste storage room
- Roles to be fulfilled by individuals for promoting the 3Rs, etc.

3) Measures to be taken including effective education

It is important that businesses discharging industrial waste should put more effort into gaining wider understanding and increasing awareness among employees of the importance of separation management as well as the 3Rs by providing effective education about policies on proper handling of the waste and the method of separation management, etc.

As for common educational measures for the staff in charge of waste management as well as employees, the utilization of education manuals and accepting the suggestions for the resolution of problems brought up by employees should be considered.

As for educational measures for the staff in charge of waste management at the workplace, visiting sites where the company discharges waste, outside facilities, and organizing workshops should be considered.

As for educational measures for employees, running campaigns for a specified time and the increased use of in-house bulletin board should be discussed.

(1) Common educational measures for the staff in charge of waste management and a whole company

i) Holding workshops

Holding workshops should be considered as one of the effective educational measures for the staff in charge of waste management as well as employees.

The purpose of a workshop differs according to the target participants. For example, if the target participants are those staff members in charge of waste management at each workplace, the workshop should focus on providing instructions and training on ordinances or the MANIFEST-related matters. If the target participants are all employees, the workshop should mainly focus on the importance of selectively discharging waste and in-house rules regarding separation.

ii) Utilization of education manuals, etc.

To maximize the educational impact, it is effective to distribute education manuals or booklets on various occasions including workshops, something that many companies have already been doing.

iii) Running recycling campaigns

In addition to workshops and the distribution of education manuals, it should be effective to run awareness-building, all-hands initiatives such as recycling campaigns, so as to further promote a company-wide effort for proper waste management/recycling.

iv) Seeking the views and opinions of workplaces engaged in the promotion of the 3Rs

Instead of always providing one-way "education" from the department in charge of waste management, listening to and seriously talking about the issues, concerns or suggestions for the improved performance from the perspective of workplaces is considered to be a key part of education. This kind of approach can enhance the self-initiative of workplaces, which shall lead to a formation of the waste management system more in line with the realities of workplaces. It also provides an opportunity whereby the department and staff in charge of waste management cooperatively work together to come up with suggestions and requests to be made to headquarters.

(2) Educational measures for the staff in charge of waste management

i) Inspection of sites where the company discharges waste

It is also considered effective that the person in charge at headquarters and the staff in charge at each workplace go round together and visit places where waste being generated and stored at each store as well as factory, and provide advice concerning storage or bulletin.

ii) Visits to outside facilities

It is also efficacious to visit outside facilities (contracted waste disposal and treatment facilities, etc.)to inspect how their consigned waste is being treated and recycled and to confirm the importance of selectively discharging waste, etc.

In addition, by visiting other companies' waste disposal and treatment facilities, it becomes possible to adopt their good practices into a company's waste management scheme.

(3) Educational measures for employees

i) On-the-job training (OJT)

- Training on waste separation, etc., to be provided by staff in charge of waste management at workplaces

It is desirable that staff in charge of waste management should directly show how to properly separate waste materials to employees at each workplace. The department in charge of waste management at headquarters should appeal for the need to provide OJT to staff in charge of waste management at workplaces and, if necessary, go over to each workplace so as to provide face-to-face instructions.

- Organizing a company assembly

Information on new laws or rules about waste separation, etc. should be provided and shared with employees directly from the staff in charge of waste management at workplaces accordingly by organizing a company assembly, etc.

ii) Bulletin board

It is important to raise employees' attention by placing posters and notices regarding waste separation and management/recycling on bulletin boards or places attracting public attention.

2.5 Gathering/summarizing and providing information concerning day-to-day waste management

It is essential to have a correct understanding of a company's efforts and outcomes by gathering/summarizing information on proper waste management/recycling as well as internal auditing, and to provide information on the development of a company's efforts to outside stakeholders. Furthermore, it is important to strive to improve integration based on the evaluation of outside stakeholders, and further enhance in-house waste/recycling governance.

1) Gathering/summarizing information concerning day-to-day waste management

In gathering/summarizing information on a company's day-to-day activities and efforts, it is important that the department in charge of waste department should understand how the in-house waste is being treated at each workplace and properly provide feedback on possible improvements.

To that end, it is desirable to build a collaborative system in which departments and staff in charge of waste management can provide/share information with each other.

(1) Summarizing, sharing information concerning day-to-day activities and efforts

It is important to understand that departments in charge of waste management should obtain relevant information from staff in charge of waste department by telephone, FAX, E-mail, etc., and understand how the in-house waste is being treated at each workplace on a daily basis. In the case where changes should be made, or a workplace has requested instructions, the department in charge of waste management should provide instruction as well as advice to staff in charge of waste management at workplaces as needed.

Moreover, it is desirable that the said department should establish a system to regularly report to executive officers concerning the information gathered/summarized in the course of their activities.

(2) Information to be taken on board

The following shows matters to be shared between the department in charge of waste management and staff in charge of waste management at workplaces.

- The volume of waste contracted out to businesses dealing with waste treatment/recycling
- The methods of waste treatment/recycling taken by businesses dealing with waste treatment/recycling
- Condition of selective waste discharge
- Questions arisen in the course of daily waste management, etc.

(3) Workplace reporting frequency

How often the staff in charge of waste management at a workplace should report to the department in charge of waste management depends on how the in-house waste is being discharged and the frequency of waste collection at each workplace.

For example, businesses discharging a large quantity of waste with foul odor, including the food industry, are expected to have daily visits of businesses dealing with waste treatment/recycling. It is, therefore, desirable that the said businesses should make frequent reports to the department in charge of waste management concerning matters listed in (2).

(4) Performance tabulation

The department in charge of waste management receives reports from the staff in charge of waste management regarding how the waste is being discharged or treated/recycled according to category, and tabulates the performance. Also, if some flaws are found, the said department is required to properly issue corrective instructions to the staff in charge

of waste management at the workplace.

(5) Feedback from headquarters

It is important that the department in charge of waste management gather and summarize information on daily waste management, and give feedback to workplaces on matters to be improved as well as the success ratio.

For example, in cases where the waste being generated is greater than the initial estimation, the department should notify the staff in charge of waste management at the workplace of the incident and request them to discuss remedial measures.

In addition, it is effective to, for example, plot on graphs the monthly data on recycling rates, amount of consigned waste, in-house waste reduction figures, and recycling figures from head office and each workplace, to be apprized of the current situation in each workplace in regard to how rates of progress match up with initial targets.

(6) Sharing information among different workplaces

As for matters to be shared among different workplaces, the following should be considered. Building a collaborative system is also a crucial task for the department in charge of waste department to encourage each workplace to make more effective approach respectively.

- Methods of separated collection
- Methods of waste management/recycling in use
- Information on contracted businesses dealing with waste treatment/recycling, etc.

(Reference) Performance tabulation through building a company-wide information infrastructure

By managing information on waste materials, etc. through a company-wide information infrastructure, prompt data search as well as company-wide performance tabulation can be achieved.

The following are some of those manageable data acquired through such a structure.

- condition of waste generation
- condition of waste separation management
- condition surrounding contracts for waste disposal and recycling
- information on businesses dealing with waste treatment/recycling
- information on the manifest control, etc.

2) How to proceed internal audits

It is desirable to conduct internal audit of proper in-house waste management/recycling on regular basis to evaluate a company's efforts.

In conducting internal audits, in-house rules regarding audit details, auditor qualification system, target for auditing and the timing, etc. should be laid down.

In addition, it is desirable to enhance a system in which necessary feedback can be promptly given to the department and staff in charge of waste management in cases where changes in a plan need to be made or there is room for improvements at workplaces as a result of the audit. It is also important to improve a system to effectively respond to problems or suggestions for the enhanced performance reported from workplaces.

Furthermore, it is also important to give recognition and incentives to workplaces that receive an outstanding rating so as to further encourage their efforts.

(1) Internal audit

i) Audit details

The following should be considered in connection with an internal audit.

- Condition of waste separation
- Condition of on-site waste management
- Achievement ratio of in-house schemes
- Verifying technological level
- Management and conformity conditions concerning contracts, etc.

ii) Auditor qualification system

It is desirable to develop an internal auditor qualification system to effectively enhance the level of internal audit as well as a company-wide awareness of the said audit.

It is desirable that the staff in charge of waste management both in the relevant department as well as workplaces should assume the post as an auditor.

iii) Target for auditing

It is desirable that the audit should include not only headquarters but also affiliates such as group companies.

However, in cases where businesses have numerous affiliates, limiting the number of annual audit subjects should be considered to ensure that each affiliate is to have the audit at least once in a few years.

iv) The timing of audit

It is desirable that an internal audit is conducted once a year around the time when a follow-up of attainment level for each fiscal year's scheme is able to be done. As for the timing of audit, it is also desirable to make some adjustments as needed so that the result of audit can be reflected in a company planning of the following term.

(2) Audit result feedback

i) Reporting to executive officers on the audit result and feedback to each workplace

The department in charge of waste management should cross-check the data provided from the staff in charge of waste management at workplaces on a routine basis and another data obtained from annual internal audit, understand the degree of achievement of initial targets at each workplace and report to executive officers accordingly.

Under managerial evaluation and instructions, the department in charge of waste management should provide feedback of audit results by communicating remedial measures as well as plans for the next term to each workplace.

ii) Feedback timing

As for findings at workplaces, concrete suggestions for improvement should be made during auditing. By checking with the result of internal audit, feedback should be subsequently provided to relevant workplaces targeted for auditing regarding matters and areas that have seriously failed to comply with the rules.

Therefore, feedback is best to be provided after auditing all targeted departments, workplaces, etc., is complete.

iii) Feedback details

As for feedback details, the following should be considered to provide to each workplace.

- Changes to be made at workplaces
 - ...e.g.) Making improvements in the method of separated discharge, conditions of forms control
- Suggestions as to a company-wide plan
 - ...e.g.) Compliance with goals for the amount of final disposal

In addition, it is important to first weigh performance outcomes of each workplace, then to make a company-wide report to announce leading business establishments with greater initiatives and efforts. It is also important that proper guidance be provided to those with poor performance.

iv) Flow of feedback procedure

The department in charge of waste management decides what feedback to provide and notifies staff in charge of waste management at workplaces. It is desirable that the staff in charge of waste management at workplaces make a report of the audit result to employees at a company assembly, etc.

v) Enhancing a system to respond to problems and suggestions for the improved performance presented from workplaces

It is desirable to enhance the in-house system to appropriately respond to cases where problems or suggestions are presented by employees in terms of improving the performance of workplace regarding their waste treatment/recycling initiatives.

(3) Incentive schemes

In order to give incentives to workplaces that receive an outstanding rating in their performance with a higher degree of achievement, creating an in-house award system to recognize excellent performances can be considered.

It is also considered effective for a company to enter some outside contests (including ones organized by environmental organizations) so as to win recognition.

3) Promoting communication with outside stakeholders

It is important that businesses discharging industrial waste should actively provide information to outside stakeholders on the 3Rs initiative for their products/services as well as a company's efforts for proper in-house waste management/recycling.

Outside stakeholders to whom relevant information should be provided are: customers/clients, business connections, investors and local communities, and it is important to consider both the information content and its medium according to the target stakeholder.

Businesses first should make improvements in their efforts and performance based on the evaluation by outside stakeholders. In addition, by providing feedback on their improvements, businesses are asked to facilitate two-way communication with outside stakeholders and further enhance their in-house waste/recycling governance.

(1) Providing information to customers/clients

i) Information to be disseminated outside the company

Customers/clients are such a crucial presence for businesses. They are not only the parties to whom a company supplies its products and services, but also entities that evaluate its performance including its efforts focused on environmental issues. A company should thus gain their understanding as well as support.

Therefore, it is essential to inform customers/clients of the development of a company's efforts. The following matters should be considered in connection with this.

- The 3Rs initiative for a company's products and services (recycling methods, the development of the initiative, etc.)
- Business policies toward building waste/recycling governance and its development)
- Preventive measures against illegal waste dumping and inappropriate treatment (If a company was involved in illegal waste dumping/inappropriate treatment, the case analysis and measures for preventing a recurrence must be presented.)

* It is also essential to provide information on a company's efforts toward promoting

the 3Rs for product planning and manufacturing to businesses dealing with treatment/recycling of consigned waste.

ii) Media

It is considered useful to utilize the following media in order to effectively provide relevant information to customers and clients.

- Store displays

By placing posters, etc., in stores, businesses discharging industrial waste should provide information to consumers on the development of a company's efforts for proper in-house waste management/recycling as well as the 3Rs initiative for their products and services.

- Utilizing homepages and mass media

The utilization of homepages and mass media such as newspaper ads, TVs, etc., is considered effective in order to widely introduce a company's initiatives and efforts. Newspaper (ads) or TVs (ads) can reach a great number of customers/clients, but the conveyable information can be limited. On the other hand, homepages can elaborate a company's initiatives and efforts.

- Environmental reports

It is considered effective to utilize environmental reports to show a company's efforts toward promoting the 3Rs for their products and services, the development of waste/recycling governance and the current status of in-house waste management/recycling. It is also essential to provide information on a company's efforts toward promoting the 3Rs for product planning and manufacturing to businesses dealing with treatment/recycling of consigned waste.

(2) Providing information to business connections

i) Information to be provided

By developing wide-range collaborative relations including business connections, businesses are able to reduce risks of illegal dumping and inappropriate treatment of waste generated through their business activities. Therefore, it is important to secure the cooperation of business connections by providing information on a company's planning, efforts and the development of their initiatives for waste management/recycling in concrete terms.

The following should be considered in connection with this.

- Planning/efforts for waste management/recycling and its degree of achievement
- In which area a company is focusing more energy in tackling waste management/recycling issues (priority-targeted waste category as well as recycling methods, etc.)
- The case analysis as well as measures for preventing a recurrence in cases where a company had been involved in illegal dumping/inappropriate treatment, etc.

ii) Media

In order to provide information like those listed in i), it is useful to utilize the following media.

- Letters requesting cooperation from business connections

It is desirable to produce a document, which says: "we are actively taking measures such as waste reduction management, etc., and thus we would like to seek such and such cooperation from you...".

(3) Providing relevant information to investors

i) Information to be provided

Amidst widely spreading investment behaviors for companies practicing environmental-friendly, socially-aware business activities, it is also important to gain

the understanding of investors for a company's efforts to enhance in-house waste management/recycling. Concerning a company's waste/recycling issues, the following information should be provided.

- The significance the company attaches to the application of its waste management and recycling policies
- Planning/efforts for waste management/recycling and the degree of achievement, etc.

ii) Media

It is considered effective to utilize the following media in order to provide information as listed in i).

- Environmental reports

It is considered effective to utilize environmental reports so as to show the development of building waste/recycling governance and current state of in-house waste management/recycling.

- Utilizing homepages and mass media

It is considered effective to widely appeal a company's efforts for in-house waste/recycling issues through various media including homepages, newspaper and TV.

(4) Providing relevant information to local communities

i) Information to be provided

As one of the main actors in building a community-based recycling-oriented society, businesses discharging industrial waste should inform municipalities, local residents and local affiliates/cooperative companies that they are enhancing their initiative promoting the 3Rs. The following matters should be included in providing information.

- Business policies on proper waste management/recycling
- Company-wide goals and planning on proper waste management/recycling
- Development of building a system to facilitate proper waste management/recycling
- Planning/efforts taken by each workplace (business offices, etc.) in each area for waste management/recycling
- Success ratio of plans and efforts listed above, etc.

ii) Media

It is considered effective to utilize the following media in order to provide such information listed above.

- On-site reports

As for respective efforts taken in stores and business offices of businesses discharging industrial waste as well as in regions, along with company-wide environmental reports, on-site reports introducing concrete initiatives and steps taken in local offices of the region are also effective.

- Organizing field trips

In order to build a community-based recycling-oriented society, it is important to gain the understanding of local stakeholders for a company's measures and efforts. To that end, it should be also effective to provide explanations of a company's initiatives and efforts while showing around workplaces where such initiatives, etc. are actually being carried out.

- * Local governments, who receive relevant information from businesses discharging industrial waste, should appropriately treat such information and reflect it in measures toward building a recycling-oriented society on a regional level.

(5) Making improvements based on the market and social information

Businesses discharging industrial waste can make changes to enhance their performance by actively providing information on a company's efforts to local communities and by receiving evaluation-based feedback from outside stakeholders.

Moreover, the other party, who receives information, is also able to facilitate their efforts toward building a recycling-oriented society.

2.6 Business management risks/penalties concerning waste disposal and responses in case of an accident

In contracting out waste treatment/recycling, it is necessary to commission, in accordance with the standards prescribed by the law, a licensed business dealing with waste treatment/recycling specified by the Waste Management Law. It goes without saying that outsourcing to an unlicensed business is against the law and there is a possibility that a company may get caught up in inappropriate waste treatment or illegal dumping cases through inappropriate appointment/making of an agreement with a business dealing with waste treatment/recycling. As a result, the said company may be accused of violation of the law.

Application of penal regulations as well as public announcement of the company's name due to violation of a law, including the Waste Management Law, may affect business management through undermined brand image, etc. Therefore, businesses discharging industrial waste must take proactive measures lest a violation of laws should occur and build a crisis-management system whereby prompt actions can be taken in case of emergencies.

1) Waste management/recycling as business management risks

In carrying out proper waste management/recycling, it is important that a company must comply with the laws, including the Waste Management Law. It is crucial for a company to be aware that various risks lie hidden and may emerge if they do not appropriately appoint/make an agreement with a contractor or if they do not follow up with the contractor's waste treatment/recycling practices.

In the case of violation of the Waste Management Law, the name of the relevant companies as well as violation details may be publicly announced.

In particular, common violations that businesses discharging industrial waste tend to commit are: contracting out to a business whose license has expired, violation of the operation guideline of the control manifest, etc.

Also, as for waste such as after-event displays, defective goods and in-stock items, it is important to keep them in mind because they are hard targets to be included in a waste management/recycling system on a constant basis.

(1) Impacts on businesses discharging industrial waste that violated the Waste Management Law

i) Penalties

Penalties, including penal servitude or fines, will be imposed for violating the Waste Management Law. Especially, according to the provision of penalty against employer and employee, even if it was an employee who violated the law, it is the company who will be penalized. It is, therefore, important to remind employees of the importance of complying with the law on a daily basis.

ii) Impacts on business management

In cases where businesses discharging industrial waste inappropriately appoint/make agreements with businesses dealing with waste treatment/recycling, and if the consigned waste is inappropriately treated or illegally dumped, the measure order on removal or the like of difficulty shall be issued to the said company and the name of the company may be publicly announced. In cases like this, it will not be merely a matter of cost problem but brand image may also be undermined through a public announcement of the company's name, etc., which may immensely affect business management.

iii) Published cases

In the large-scale illegal waste dumping case on the border between Aomori and Iwate prefectures which was uncovered in 1999, the name of the business discharging

industrial waste was publicly announced and reported in the newspaper. In addition, some municipalities have disclosed previous records of administrative penalty cases related to the Waste Management Law.

For instance, the homepage run by Tokyo metropolitan government shows information on previous administrative penalty cases.

(<http://www2.kankyo.metro.tokyo.jp/sanpai/syobun/index.htm>)

Here, the following information is disclosed to the public.

- 1 . Name and address of the party who was punished
- 2 . Punishment details
- 3 . Time limit for performance
- 4 . Other details including circumstances led up to administrative penalties, the abandoned industrial waste in question, etc.

(2) Risks concerning waste treatment/recycling

Concerning waste management/recycling, there are cases where businesses discharging industrial waste themselves violate a statute or get involved in inappropriate waste treatment or illegal dumping cases committed by a contractor. The following shows such common cases and key proactive/countermeasures.

i) Expiration or cancellation of a license for a contracted business dealing with waste treatment/recycling

To contract out to an unlicensed business for waste collection/transportation or treatment is out of the question, but there may be cases where the license for the said contractor, whom a company had been doing business with, may have been expired or cancelled.

Therefore, it is necessary to regularly confirm whether a contractor's license is not expired or cancelled, and to inquire with prefectural governments whether the said contractor has been involved in some violation cases.

In addition, lest a company should lose their contractor for disposal of their in-house waste, it is considered important to be prepared for such conceivable circumstances by securing another contractor, etc.

ii) Non-issuance and violation of the management guideline of the control manifest (control manifest of industrial waste)

Businesses discharging industrial waste cannot fulfill their responsibility as a discharger just by issuing the control manifest when they hand over the consigned industrial waste. Businesses need to confirm that the control manifest is being returned within the specified period from businesses dealing with collection/transportation or those dealing with intermediate treatment, and to cross-check/verify entries on the control manifest. In addition, businesses discharging industrial waste are also required to keep control manifest for a specified time.

Businesses discharging industrial waste are not responsible for the non-return of the control manifest by specified due date. Yet, if a business leaves such a situation as it is and neglects to take any necessary measures, including verification, instruction or reminders, against businesses dealing with waste collection/transportation or those dealing with waste treatment/recycling, and if the relevant consigned industrial waste was inappropriately treated or illegally dumped, the said business will also be subjected to administrative penalties: the measure order on removal or the like of difficulty shall be issued. Concerning the due date for the returned control manifest, it is desirable to build a system whereby confirmations, instructions or reminders are to be sent to the relevant businesses dealing with waste collection and transfer or those dealing with waste treatment/recycling prior to the expiry of the period specified by the Waste Management Law in terms of the reduction of inappropriate waste management risk.

iii) Waste outflow from contractors, affiliates and distribution route, etc.

Regardless of whether a company itself is practicing proper waste management, there are cases where the waste that appears to have been discharged from their business activities is found in illegal dumping sites. In such a case, the following possibilities can be considered.

- Waste that was discharged from affiliates/cooperative companies in the course of their business activities producing to order from the company (headquarters) is taking illegal routes.
- Somewhere on the distribution route, waste including a company's products as well as waste packing materials are taking illegal routes, etc.

In order not to get involved in inappropriate waste treatment/illegal dumping, it is important to actively promote cooperation not only within the company but also with contracted businesses for waste disposal/recycling services, affiliates/cooperative companies, and suppliers/clients as well.

iv) Waste discharged from the department where a waste management/recycling practice is not constantly carried out

Waste discharged in the course of business activities is easily monitored. On the contrary, waste generated in the following circumstances is not. Such waste is often discharged from departments where proper waste management/recycling systems are not established and no person is assigned to be in charge of waste management. It is thus desirable to establish a method and procedure for disposing of/treating such kinds of waste.

- After-event displays

A main contractor often undertakes disposing/recycling after-event displays, but there is a possibility that exhibitors may also be penalized. Therefore, businesses are required to confirm with the said main contractor how they will dispose of after-event displays and to give instructions if it seems inadequate.

- Promotional goods

Promotional goods are produced in large quantity and for one-time spot campaigns. In addition, there are cases where most goods end up discarded unused. Therefore, in many cases, these goods may be disposed of in a different way from waste discharged on a daily basis.

- Defective goods and items in-stock

As is the case with promotional goods, defective goods and items in-stock may be disposed of in a different way from waste discharged on a daily basis.

v) Waste products that were sold as usable materials

Even when things are sold as usable materials, it is necessary to appropriately appoint a contractor for recycling, etc., and to confirm their distribution and flowpath.

Specifically speaking, it is necessary to carefully verify whether the consigned waste is being properly recycled at a contractor or overseas, if waste products are sold to overseas clients, and whether the consigned waste is not disposed of in connection with illegal dumping, etc.

2) Penalties specified in the Waste Management Law

In promoting proper waste management/recycling, businesses discharging industrial waste must observe the Waste Management Law. The Waste Management Law stipulates very basic guidelines and rules that businesses discharging industrial waste must follow.

It is important that businesses should know what kind of penalties they may be subjected to in cases where they violate the Waste Management Law.

(1) Violating acts of businesses discharging industrial waste specified in the Waste Management Law

Main violations specified in the Waste Management Law are listed below.

Strict penalties shall be imposed for the following violations.

- contracting out to an unlicensed business for waste disposal
- concluding a contract that does not comply with standards prescribed in the law
- disposing waste in a way other than as prescribed by the law
- non-issuance of the control manifest, false entries on the control manifest
- disobeying the administrative orders and not taking necessary measures, etc.

(2) Penal provisions prescribed in the Waste Management Law

In the Waste Management Law, penal provisions are prescribed from Article 25 to Article 33 in Chapter 5.

As shown in the table in the next page, the following penalties shall be imposed on those who violated the Waste Management Law.

- Up to 3 years in jail or/and a fine not exceeding 3 million yen
- Up to 5 years in jail or a fine not exceeding 10 million yen
- A fine not exceeding ¥300,000 (500,000)
- A fine not exceeding 100 million yen(in the case of illegal industrial waste dumping)

Table: Penalties against waste dischargers (including businesses dealing with intermediate treatment)

Violations (Provisions in the Waste Management Law)		Violation details	Penalties (Provisions of the Waste Management Law)	
Disobedience of the measure orders	Paragraph 1 of Article 19-5 Paragraph 1 of Article 19-6	Not taking necessary measures regardless the measure orders issued by the administrative authorities	Up to 5 years of prison or a fine not exceeding 10 million yen	Clause 3 of Paragraph 1 of Article 25
Violation of the law against commissioning to unlicensed businesses	Paragraph 3 of Article 12 Paragraph 3 of Article 12-2	Contracting out the disposal of industrial waste to unlicensed businesses		Clause 4 of Paragraph 1 of Article 25
Illegal waste dumping	Article 16	Disposing industrial waste without permission.		Clause 8 of Paragraph 1 of Article 25
Breach of commissioning criteria Breach of re-commissioning criteria	Paragraph 4 of Article 12 Paragraph 4 of Article 12-2	Contracting out collection/transportation or disposal of industrial waste in a way that does not comply with commissioning criteria. Consignees re-commissioning to other parties.	Up to 3 years of prison or/and a fine not exceeding 3 million yen	Clause 1 of Paragraph 1 of Article 26
Violation of the law against waste incineration	Paragraph 2 of Article 16	Incinerating industrial waste in a way other than as specified by the law		Clause 8 of Paragraph 1 of Article 26
Breach of duty to issue the control manifest, False entries, Breach of duty to make complete entries	Paragraph 1 of Article 12-3 Paragraph 2 of Article 16-4-5	Non-issuance of the control manifest, not filling out the form completely or false entries on the control manifest	A fine not exceeding 500,000 yen	Clause 1 of Paragraph 1 of Article 29
Breach of duty to store a copy of the control manifest	Paragraph 5 of Article 12-3	Not storing a copy of the returned control manifest for five years.		Clause 5 of Paragraph 1 of Article 29
False electronic control manifest	Paragraph 1 of Article 12-5 Paragraph 2 of Article 15-4-5	Waste dischargers made false entries in registering the electronic control manifest.		Clause 7 of Paragraph 1 of Article 29
Breach of duty to keep accounts, Inadequate book-keeping False entries in a book Breach of duty to store books	Paragraph 11 of Article 12 Paragraph 12 of Article 12-2	Non-bookkeeping, making false entries, or not retaining any records.	A fine not exceeding 300,000yen	Clause 1 of Paragraph 1 of Article 30
No-placement of specially controlled industrial waste manager	Paragraph 6 of Article 12-2	None was assigned to be in charge of specially controlled industrial waste management.		Clause 4 of Paragraph 1 of Article 30
Breach of duty of mandatory reporting, False report	Article 18	Non-reporting despite the request from the administrative authorities, or making false a report on the handling of industrial waste, etc.		Clause 5 of Paragraph 1 of Article 30
Refusal, impediment or avoidance of spot inspection or the removal of waste	Paragraph 1 of Article 19 Paragraph 2 of Article 19	Refusing, impeding or avoiding the inspection of the administrative authorities		Clause 6 of Paragraph 1 of Article 30
Penalty against employer and employee (against corporate body)	(Paragraph 8 of Article 25)	If a corporate representative, an agent of a corporate or a person, or an employee violates the following penal provisions, the employer or the corporate body itself shall also be subjected to monetary penalty together with the performer of the violation.	A fine not exceeding 100 million yen in the case of <u>illegal industrial waste dumping</u>	Clause 1 of Paragraph 1 of Article 32
	(Article 25 except above, 26, 28~30)		A fine shall be imposed as specified in each provision.	Clause 2 of Paragraph 1 of Article 32

3) Measures to be taken in case of an accident concerning waste handling/management

It is important that businesses discharging industrial waste should prevent an accident concerning waste management/recycling from occurring and at the same time they should establish measures and in-house system to promptly respond to emergencies such as an accident.

Prompt and appropriate responses can minimize attendant effects of the accident.

(1) The flow of accident responses and countermeasures

i) Initial response

In the case where contingencies occurred, businesses discharging industrial waste must first find out what happened and verify fact relevance.

- In cases where the police or the administrative authorities have contacted on suspicion of illegal dumping:

It is necessary to verify whether a company was involved in inappropriate contracts or control manifest management in breach of the Waste Management Law through contracts or control manifests, and at the same time, to inquire with relevant businesses dealing with waste treatment/recycling, affiliates/cooperative companies, suppliers and clients about fact relevance.

Based on the findings, concrete coping strategies should be decided.

- In cases where administrative penalties were imposed on the contracted business dealing with waste treatment/recycling

Along with the verification of privity of contract as well as status of returned control manifests, how to dispose of the consigned waste left unattended at the said contracted business dealing with waste treatment/recycling should be discussed.

To that end, it is important to enhance daily management on a consistent basis, including thoroughgoing management of contracts as well as control manifest, and establishing a communication system with businesses dealing with waste treatment/recycling so that appropriate initial responses can be made in case of contingencies mentioned above.

ii) Countermeasures

- In cases where the police or the administrative authorities have contacted a company on suspicion of illegal dumping:

If confirmed that there was no fact that a company committed a violation of the provisions specified in the Waste Management Law, etc., after verifying fact relevance, the said company should submit their findings to the police or the administrative authorities without delay and notify them that there was no law violations committed by the company.

If confirmed that a company committed a violation of law, it is important that the said company should report to the administrative authorities on their negligence as well as remedial plans without being late, and at the same time, should provide a thorough explanation about fact relevance to stakeholders.

- In cases where administrative penalties were imposed on the contracted business dealing with waste treatment/recycling

If waste with the unreturned control manifest is found, businesses discharging industrial waste should verify how the said waste is being currently treated (verifying with the contracted business who collected and transported the said consigned waste), and should change the contractor to another business, which had been secured separately concerning disposing of the unattended waste at the said contracted business.

iii) Information disclosure

In cases where a company committed a violation of the provisions specified in the Waste Management Law, etc., which led to inappropriate treatment and illegal dumping, it is desirable that the said company should fulfill accountability about fact relevance as well as their remedial measure plan not only to the administrative authorities but also to relevant stakeholders without delay. It is also desirable that similar measures should be taken in the case where the surrounding environment was contaminated due to an accident occurred on the premise.

Even if confirmed that a company did not commit any violation of the provisions specified in the Waste Management Law, etc., holding a briefing session or meeting should be considered to explain the background to the public. Especially in the case where social impact is immense and residents living in the vicinity of the facility as well as their living environment can be seriously affected as in the case of illegal dumping, it is desirable to appropriately communicate the circumstances to outside stakeholders.

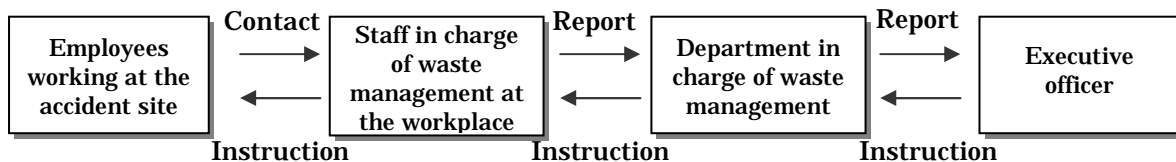
The following information should be provided to outside stakeholders:

- Accident details, etc. (date and hour of occurrence, details, etc.)
- Measures taken by a company
- Future policy, etc.

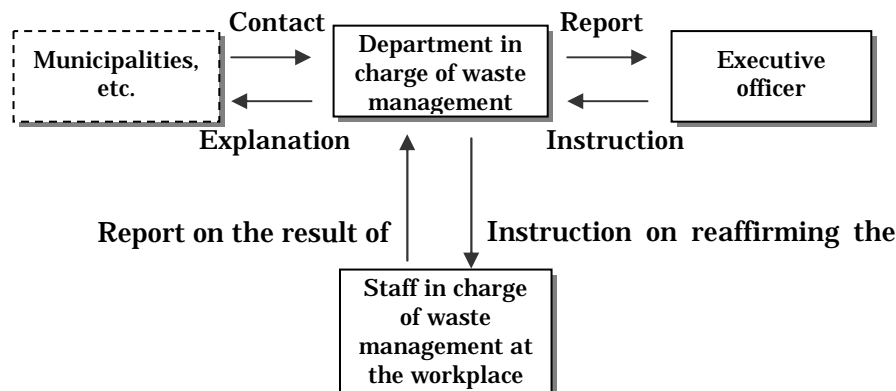
(2) Information distribution system

Contingencies including illegal dumping and sudden accident may affect the whole company. Therefore, it is essential that the staff in charge of waste management, without stopping the information there, should immediately pass on the relevant information to executive officers.

Executive officers as well as the department in charge of waste management should provide directions on what measures should be taken, and at the proper time, make preventive measures fully known to all the employees lest similar accidents should occur.



Accident responses in case of an accident occurred during premises operation



Emergency response in the event of illegal dumping, etc.

3 . Daily Management for Waste/Recycling Governance

In building waste/recycling governance, it is essential to enhance the awareness of every single employee and obtain cooperation from them. Furthermore, the role of the staff in charge of waste management at the workplace, who educate and train other employees to properly discharge waste, becomes crucially important. Therefore, it is necessary to develop rules and an operational system for the staff in charge of waste management as well as each employee to carry out proper waste management.

Along with practicing separation management, appointing/making an agreement/cooperate with a contracted business is important. Thus, gathering information and building a collaboration system to work with a contracted business must be pressed forward. Furthermore, each workplace is required to properly carry out the operation of the control manifest as part of daily management concerning waste materials.

This chapter presents separation management of waste materials, appointment of, contracting, and cooperation with a business as well as the operation of the control manifest as key tasks that staff in charge of waste management at the workplace must undertake toward building waste/recycling governance.

3.1 Separation management of waste

Implementing proper separation management of waste (waste materials, valuable resources) is an indispensable prerequisite for further promoting proper waste management/recycling, including waste reduction through recycling.

In order to enhance separation management on a constant basis, it is important to formulate in-house rules and manuals, etc, regarding waste separation/classification, implementation methods of waste separation, sites of discharge and storage, layout and explanation of sites of waste discharge as well as storage room, etc., and then to make rules on separation management as well as mindset, etc. fully known to all employees at each workplace.

* It is desirable that departments in charge of waste management should absorb the ideas described in "Understanding the current status of waste discharge, separation and treatment/recycling" as well as "How to proceed in daily management."

1) Positive effects of separation management of waste

In order to promote waste recycling, separating waste is of paramount importance. In addition, by properly separating waste, risks of illegally treated waste may decrease. Thoroughgoing separation practice has a beneficial effect on reduction in disposal costs as well as the increase of profit on sale, so that it is important that employees, who actually separate waste at each workplace, should be aware of such positive effects.

Promoting proper waste management/recycling is a discharger's responsibility. The following shows some of the effects to be brought about through practicing separation management.

i) Promoting effective utilization of resources

By practicing waste separation, preventing waste generation as well as recycling shall be encouraged and the ratio of effective utilization of resources shall be thus enhanced.

ii) Reducing risks of inappropriate waste treatment practices

Separated waste is usually easier to treat compared to unseparated, mixed waste so that the possibility of waste outflow taking illegal routes can be reduced.

iii) Growth of profit on sale and reduction in disposal cost

By separating waste, the ratio of valuable resource contained in the waste will increase and waste materials targeted for intermediate treatment as well as final disposal will decrease, which shall lead to a reduction in disposal cost.

2) Flow of separation management

In order to build a system to enhance separation management at workplaces, it is important to understand first the current flow of waste materials as well as the actual status of waste discharge, separation and treatment/recycling practices taken at workplaces.

Based on the findings, rulemaking for separation management, providing education/training to employees and performance tabulation of separation management should be undertaken.

(1) Essentials in understanding the current status

In order to implement proper separation management, it is important to understand the current flow of waste materials as well as actual status of waste discharge, separation and treatment/recycling practices taken at each workplace, prior to rulemaking for separation management.

(2) Building a system for separation management

Based on the understanding of the actual status, a system for separation management

should be developed in the process as shown below.

i) Rulemaking for separation

Based on the findings obtained from (1), separation/classification of waste materials should be decided.

According to prescribed classification for separation, specific rules for separation management concerning effective methods of separation, sites of waste discharge and storage, and layout and explanation of storage place should be established.

ii) Education/enlightenment

In parallel with rulemaking for separation management, developing separation manuals as well as providing education/enlightenment to employees should be pressed forward.

iii) Daily management

By carrying out daily management along with practicing waste separation through stages 1 and 2, the performance shall be tabularized.

The result of this performance tabulation shall lead to an understanding of the current status of a company-wide waste discharge and treatment/recycling, and an enhanced separation management system shall be established so as to further facilitate the 3Rs initiatives by operating these systems.

3) Understanding the current status of waste discharge, separation and treatment/recycling

In order to implement waste separation management at workplaces, it is essential to understand the current flow of waste materials (discharge, separation and treatment/recycling).

It is desirable that the department in charge of waste should develop a company-wide unified survey form to understand the current flow of waste materials.

(1) Items that need to be understood

i) Situation of waste discharge

According to the classification of waste materials, the following items should be investigated, so as to understand the current status concerning in-house waste discharge.

- Site of discharge
- Waste category
- Volume of discharge
- Frequency
- Staff in charge at workplaces, etc.

ii) Situation of waste treatment/recycling

According to the classification of waste materials, the following items should be investigated, so as to understand the present situation of in-house waste treatment/recycling.

- Waste category
- Volume of consigned waste
- Frequency of collection
- Contractors for waste collection/transportation services, intermediate treatment and final disposal
- Waste treatment/recycling methods/technologies
- Incinerated residue, recycled products, etc.
- Amount of final disposal, etc.

(2) Gathering /summarizing information

Information on the current status of waste volume, etc. at each stage of discharge, separation and treatment/recycling (volume of waste discharge, volume of waste being treated/recycled, etc.) should be gathered/summarized so as to understand the flow of waste materials at each stage.

In so doing, it is desirable that an exclusive tabulation sheet specified by the department in charge of waste management should be used, so that the said department can efficiently collect/summarize information from each workplace where the waste is being discharged.

4) Key elements in rulemaking for waste separation

The basics of separation is to first classify waste according to rough categories and to then further refine this in each waste category. In so doing, a company is required to establish in-house separation criteria according to how their in-house waste is treated/recycled.

According to prescribed classification for separation of waste, points of concern regarding methods of discharge enhancing efficient waste separation should be developed. In addition, waste storage as well as the timing for handover should be specified.

Furthermore, in carrying out separation, it is necessary to appoint a business who will properly treat/recycle the separated in-house waste. It is also important to establish methods of separation and treatment/recycling suitable for a company's in-house waste in consultation with businesses dealing with waste treatment/recycling.

(1) Basics of separation

The basics of separation is to first classify waste according to a rough category and to then further refine this in each waste category. In so doing, a company is required to establish in-house separation criteria according to how their in-house waste is treated/recycled.

For example, in cases where a business accepting office paper for disposal is secured, a company should classify and separate "paper", a conventional and general classification, into two categories: "office paper" and "other kinds of paper". In this way, it is considered efficacious to refine separation criteria according to the capacity and competence of the party who undertakes treatment/recycling services.

In addition, waste from the manufacturing process is usually generated in groups of the same kind. It is thus effective to separate them according to the circumstances of waste discharge.

(2) Points of concern, etc., regarding separated discharge of waste

i) Points of concern regarding separation

According to the prescribed waste classification for separation, points of concern regarding methods of discharge enhancing efficient waste separation should be first specified. For example, points of concern as shown in the following table can be considered.

Table: Examples of points of concern regarding waste category and methods of discharge

Waste category	Points of concern regarding methods of discharge enhancing efficient waste separation (examples)
Kitchen waste	<ul style="list-style-type: none"> • Preventing foreign matters (plastic containers, etc.) from getting in • Draining excess liquid in garbage bags
Newspaper/magazine	<ul style="list-style-type: none"> • Preventing non-paper inserted materials and nonrecyclable paper from getting in • Office paper as well as cardboard should be put out separately
Cans, bottles	<ul style="list-style-type: none"> • Placing exclusive containers for cans and bottles • Emptying out leftover liquid

ii) Storage-place of waste materials

Wastes should be properly stored in a specified storage place according to its category. By the storage space being well-organized and kept tidy, the staff in charge of waste management at the workplace can easily prevent foreign matters from getting in and practice proper separation management. Not only that, businesses dealing with waste collection/transportation shall be able to hand over the consigned waste by category.

iii) Timing for waste handover

In consideration of preventing odors from rotten waste as well as storage overflow control, the timing for waste handover should be decided after due consultation with businesses dealing with waste treatment/recycling.

(3) Appointing a business

In implementing waste separation, it is essential to appoint a business that can properly accept and treat/recycle the consigned waste according to the separating methods that have already been implemented.

Also, it is advisable to fully consult with the already-contracted business dealing with waste treatment/recycling, to decide treatment/recycling methods in line with the kind and volume of in-house waste and then to carry out separation accordingly.

5) Thoroughgoing practice of separation management (education, etc.) and methods of dissemination/enlightenment

In order to smoothly implement separation management, it is important to gain understanding of the possible beneficial effects of separation management in connection with the promotion of the 3Rs from employees who actually undertake separated discharge at each workplace.

Therefore, it is important that the staff in charge of waste management at the workplace should actively provide employee education/training that reflects policies suggested from the department in charge of waste management, so as to raise awareness for a thoroughgoing practice of separation management.

Also, it is important to improve the working environment in which employees can separate waste without difficulty. To that end, it is essential that the staff in charge of waste management at workplaces should adopt a separation method accessible to all employees and provide a clear layout and explanation of the sites of waste discharge and storage.

Furthermore, implementing company-wide efforts focused on waste separation/recycling is expected to be effective in raising awareness among employees and in reducing waste output as well as promoting separation management.

(1) Employee education provided at workplaces

Reflecting the policies suggested from the department in charge of waste management, staff in charge of waste management at the workplace should provide employee education regarding rules for separation management as well as the required mindset.

Whether relevant education is widely spread among employees who actually separate/discharge waste and hand it over to a contracted business dealing with waste treatment/recycling is the key to ensure proper in-house waste treatment/recycling.

Providing direct guidance from the staff in charge of waste management to employees at each workplace, holding company assemblies and utilizing education manuals (distributed from the department in charge of waste management) can be considered in connection with this.

(2) Improvement of working environment

In order for employees to properly carry out separated discharge, along with providing education/training, it is important to improve the working environment in which employees at each workplace are encouraged to undertake 3Rs initiative. It is desirable that the following measures should be taken.

i) Adopting a method of waste separation accessible to employees at the workplace

As a method of waste separation that is accessible to employees at workplaces and shall improve the accuracy of separation practice, there is a separated collection method that is to collect waste in small, separated lots. For example, instead of using a large-sized waste-collection container, collecting waste by placing small bags and boxes by category is considered to be effective in enhancing the accuracy of separation practice.

ii) Clear layout and explanation of sites of discharge and storage as well as signs

It is effective to clearly specify the sites of discharge and storage according to classification for separation or waste category. It is also important to put up the plate sign that clearly writes waste category to be disposed there, matters to be attended to, how the disposed waste will be recycled, etc., at each storage place so that the staff in charge of waste management won't misplace the waste. It is also important to make on-going efforts for facilitating the understanding of the importance and need to practice separated discharge.

(3) Raising awareness of employees through participation in company-wide initiatives

By conducting company-wide initiatives including campaigns, etc., it is expected to be effective in raising awareness for separation management and the 3Rs initiative among employees, in reducing waste output as well as promoting separation management.

In so doing, it is important that specific roles should be defined first for the department in charge of waste management, staff in charge of waste management at workplaces and each employee to fulfill and each workplace should strive to attain their specific goals under a company-wide direction and initiative led by headquarters.

6) How to proceed in daily management

It is important that staff in charge of waste management at the workplace should supervise whether in-house waste is properly separated at each site of discharge on a daily basis.

To that end, each workplace should use the daily management form created by the department in charge of waste management, carry out daily management concerning separation management, including volume of waste discharge, the condition of waste separation, etc., and report their findings to the department in charge of waste management.

The staff in charge of waste management at the workplace needs to verify whether in-house waste is appropriately separated by regularly monitoring workplaces.

(1) Daily management

Staff in charge of waste management should carry out daily management for the following matters concerning waste discharge/separation, etc.

- Volume of waste discharge by classification for separation
- Condition of waste separation
- Frequency of waste handover
- Cleanup condition of storage place
- Amount of waste consigned to businesses dealing with waste treatment/recycling, etc.

(2) Work report from the staff in charge of waste management at workplaces

In order to properly carry out daily management, it is important to strive to provide/share information with the department in charge of waste management by actively communicating the conditions of waste separation at each workplace and questions as well as requests arising in the course of daily management. In particular, it is desirable that the said staff should specify the conditions of daily management as mentioned in (1) in the work report form specified by the department in charge of waste management.

In addition, how often the report should be made depends on the condition of waste discharge at each company. Only as a guide, but it is desirable that the report is provided on the day when businesses dealing with waste collection/transportation come to collect the consigned waste (If possible and efficacious, daily reports can be considered).

(3) Supervision by monitoring workplaces

It is important that staff in charge of waste management at the workplace should verify whether in-house waste is being properly separated by regularly monitoring sites of waste discharge/storage.

As for particulars to be verified during monitoring, the following should be considered.

- Whether various types of waste are disposed of in an appropriate place.
- Whether storage place for waste is tidy and well arranged.
- Whether the frequency of collection is appropriate (whether or not the storage facilities are overflowing), etc.

3.2 Appointments/contracts/cooperation with businesses dealing with waste treatment/recycling

In order for a business discharging industrial waste to reduce risks of inappropriate treatment and to further facilitate proper in-house treatment/recycling, it is extremely important that the said business should properly appoint and make an agreement with a contractor for waste treatment/recycling services. In so doing, it is important that the said business recognize a contracted business dealing with waste treatment/recycling not merely a contractor but as a core partner to seek cooperation for information exchange/sharing, etc.

* When the department in charge of waste management appoint/make an agreement with a business dealing with waste treatment/recycling, it is desirable that the said department should absorb the ideas elaborated in this chapter.

1) The flow of appointing and contracting with businesses dealing with waste treatment /recycling

Carrying out proper waste treatment/recycling is a discharger's responsibility, but the truth seems to be that many of them are heavily dependent on a waste treatment/recycling contractor. Therefore, it is important that a business discharging industrial waste should appropriately appoint and contract with a business which shall treat/recycle the consigned in-house waste.

As concrete steps to do so, sufficient information should be assembled first regarding businesses dealing with treatment/recycling. After due consideration, an appropriate business should be appointed, followed by proper contractual procedure. In contracting out the waste disposal, proper control manifest management on a daily basis as well as regular on-site inspections should be actively pursued.

The procedural steps for appointing and making an agreement with a contracted business dealing with waste treatment/recycling are as described below.

(1) Gathering information and appointing a contractor

- A variety of information regarding businesses dealing with waste treatment/recycling should be gathered from a broad perspective. In particular, the information on overall performance of the said business (including the conditions of facilities, business pursuit, finance, etc.) as well as previous record of violation of law should be gathered/summarized first. Then, based on the findings, an appropriate contractor should be appointed.
- It is especially important to make a visit to the site where the consigned waste is actually treated/recycled to conduct on-site inspection so as to collect specific information.

(2) Contracts

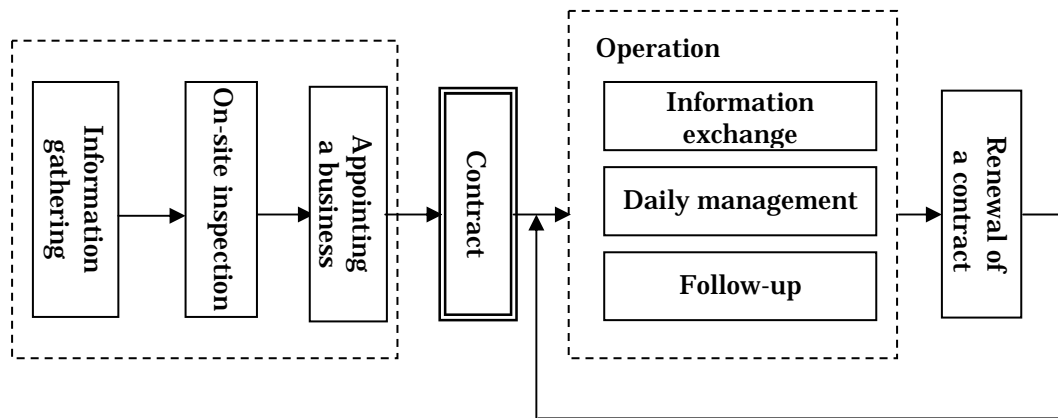
- A contract concerning consigned waste treatment/recycling shall be concluded.

(3) Operation management

- After the conclusion of a contract, a commissioned business should be actually undertaken. Along with carrying out the management of the control manifest, etc., the follow-up should be provided on regular basis by conducting on-site inspection.
- In addition, in order to facilitate proper waste management/recycling, it is important to seek information exchange, to build and further strengthen cooperative relations on regular basis.

(4) Contract renewal

- When expired, a contract shall be renewed after conducting reinvestigation if required.



Note: On-site inspection shall be conducted as needed at each stage of follow-up or contract renewal.

Figure: Flow of appointing, contacting with and operation with a contracted business dealing with waste disposal

2) Collaboration with businesses dealing with waste treatment/recycling

In order for businesses discharging waste to realize proper in-house waste treatment/recycling, it is important to build a cooperative relation with businesses dealing with waste treatment/recycling by actively seeking information sharing as well as exchange of opinions on regular basis.

In particular, it is desirable to exchange opinions regarding various matters including: discharging methods and waste classification that facilitate recycling waste that is difficult to apply proper treatment, etc.

It is necessary to provide complete information on characteristics, etc., of the consigned waste to a contractor. If sufficient information is not provided on characteristics, etc., of the consigned waste, the said contracted business may have problem seeking a better means of waste treatment/recycling, securing the safety of the operation as well as compliance with the law.

In order to carry out proper waste treatment, businesses dealing with waste treatment/recycling are also required to bear the commensurate costs, businesses discharging industrial waste must have proper understanding/awareness of disposal cost.

(1) Collaboration with businesses dealing with waste treatment/recycling

i) The importance of collaboration

Toward realizing proper waste treatment/recycling, businesses discharging industrial waste assume great responsibilities. However, it is usually a contracted business dealing with waste treatment/recycling that actually execute disposal/recycling services. It is thus extremely important to establish a cooperative relation with a contractor so as to further enhance proper waste treatment/recycling.

ii) Exchanging opinions with businesses dealing with waste treatment/recycling

For example, it is desirable to exchange opinions concerning the following matters on regular basis.

- How to separate waste for easy recycling?
- What kinds of waste materials are difficult to process or recycle properly?
- Which relevant waste-processing and recycling regulations should attention be paid to?

(2) The need of providing information

Businesses discharging industrial waste tend to be reluctant to provide information on characteristics of waste to businesses dealing with waste treatment/recycling on ground of confidentiality and in some cases to contract out waste disposal services just by providing samples. However, for the following reasons, it is important to provide complete information on characteristics of the consigned waste to a contracted business dealing with waste treatment/recycling without fail.

- In order for business dealing with waste treatment/recycling to foresee the operational risk so that they can assure the safety.
- If the details and characteristics of waste is unknown, in some cases, the said contracted business may not be able to take appropriate responses in accordance with the law.
- To provide sufficient information so that the said contracted business can choose the appropriate method of waste treatment/recycling, etc.

Accidents attributable to negligence in providing relevant information to businesses dealing with waste treatment/recycling

<Assuring the safety>

Due to the lack of relevant information on characteristics of waste, etc., the following accidents actually occurred at the facilities of contracted businesses dealing with waste treatment/recycling.

- Heat generation due to chemical reaction, etc., ignition, explosion, gas generation
- Loss of vision or burn due to strong acid, strong alkali
- Explosion due to the mixing of spray cans, etc.

<Assuring compliance with the law>

The following situations, which may lead to a violation of a law, may occur at a contracted business dealing with waste treatment/recycling due to the unspecified waste.

- Businesses dealing with specified chemicals may be required to conform with relevant waste-management laws as well as fire-prevention laws.
- Inability to undertake legally sanctioned waste treatment due to lack of knowledge about which toxic materials are designated under the Labour Safety and Hygiene Regulations.
- Inability to undertake proper waste-water treatment due to ignorance of the presence of arsenic, resulting in water contamination levels exceeding legally prescribed levels in the Clean Water Law.
- Inadvertently incinerating waste materials unsuitable for incineration, leading to pollutants being released that exceed the legally prescribed levels in the Air Pollution Control Law.

(3) Understanding of disposal cost

In order to carry out proper waste treatment, businesses dealing with waste treatment/recycling are also required to bear commensurate costs; businesses discharging industrial waste thus need to have proper understanding/awareness of disposal cost.

In addition, in the case where a business undertake wastes treatment/recycling services at extremely low costs compared to others, there is a possibility that the said business may apply inappropriate treatment to the consigned waste. Therefore, it is desirable to find out why it is possible for them to carry out waste treatment/recycling services at such low cost.

The 1998 White Paper on the Environment p.44 (Excerpt)
(Underlined by the Waste and Recycling Subcommittee, Industrial Structure Council)

The problem of industrial waste disposal tends to be seen as the problem and responsibility of the waste disposal business, but in fact the majority of the problems are caused by illegal dumping and by the inappropriate treatment of wastes by those who produce the wastes yet wish to avoid the cost of disposal. In many cases, businesses discharging industrial waste seem to lack an awareness that appropriate expenses must be also borne by them in order to carry out proper waste management. Therefore, the key to the solution of this problem is to include the disposal cost in the expenses of corporate activities and to make sure that the cost is borne appropriately within the economic society through the market mechanism (internalization).

Although the Waste Management Law clearly specifies that the industrial waste discharged from business activities must be properly treated/disposed either by waste dischargers themselves or by appropriately contracting out to industrial-waste disposal businesses, how dischargers view disposal costs is also reflected in contracting out their waste to industrial-waste disposal businesses. In other words, in their solely cost-conscious, cost-based decision making, dischargers tend to choose a business who offers a cheaper disposal cost. As a result, among those waste disposal businesses, there is an atmosphere in which underbidding practices are allowed or rather encouraged. This kind of environment may not only lead to inappropriate waste treatment practices by pernicious businesses but also place other disposal businesses that are committed to practice proper waste management in a difficult situation. Furthermore, an option of applying advanced waste treatment/recycling method may be deprived right from the beginning. Therefore, it can be said that this cost-based, underbidding-allowed tendency may be substantially blocking the development and dissemination of advanced treatment/recycling technologies.

3) Compilation of information related to waste management and recycling contractors

In order to establish the appropriate contractual arrangement with waste management and recycling contractors, it is important to assemble sufficient information before the fact.

It is desirable to assemble information on the following: permits; the state of facilities; waste processing capacity and methods; the state of management in regards to such matters as waste-handling performance to date and implementation guidance; environmental measures; financial control; oversight of the contract, manifesto and other documents; crisis management; information disclosure; and executives' business mindset.

Materials relating to licensing approval, etc. can be obtained from the municipality, while information about facility processing capacity and methods, along with financial status, should be available from the contractors. Furthermore, it is important to assemble information on the ground, by actually visiting sites to confirm facility operations, staff morale and so on, as well as gauging the site's reputation among local residents.

(1) Details of information that it is desirable to compile

The following subjects are examples of the kind of information that is desirable for those responsible for workplace waste management to compile regarding waste-management and recycling contractors.

- Permits: business permits, facility permits
- facilities: facility status, management status, storage facilities, etc.
- Waste management: management of consigned waste, waste-handling proficiency and methods, etc.
- Confirmation of management: handling track record, presence or absence of work oversight
- Environmental measures: compliance with environmental regulations
- Financial control: accounts, economic fundamentals
- Office management: management of contracts, manifestos and other documents
- Crisis management: status of crisis-management manual, establishment of urgent-contact procedures, etc.
- Information disclosure: approach to information disclosure, contact with local residents
- Staff management: management framework, staff morale, etc.

(2) Means of assembling information

i) Compilation of materials

It is desirable to compile materials regarding waste-management and recycling contractors, to create an integrated source of information for the evaluation of contracts.

- It is desirable to contact the municipality where each waste-management or recycling contractor conducts business, so as to confirm whether the aforementioned contractor has the required permits and to ascertain its project-management track record.
- It is also important to request and obtain the necessary documentation from each waste-management or recycling contractor. For example, it is desirable to obtain and confirm information regarding such things as a contractor's waste handling capacity and methods, and its financial status, so as to confirm its facility operations and the soundness of its finances.
- Further, the assessment of other involved parties (waste dischargers, waste-management and recycling contractors) may be informative.

ii) Confirmation on the ground

It is important to actually visit each workplace to confirm facilities and so on with

one's own eyes, and then compile relevant information.

- Confirm on-site such issues as facility operations status, maintenance of the ledger sheet, the presence or absence of environmental measures, and staff morale.
- Further, at the time of on-site inspection, it will be possible to obtain information from local residents regarding the said contractor on whether it is communicating effectively with them on such issues as vibration, noise, and offensive odors.

Table: Main sources of information on waste-management and recycling contractors

Source of information		Information on waste-management and recycling contractors
Compilation of materials	Municipality	<ul style="list-style-type: none"> • Information regarding licensing approval • Project-management track record, etc.
	Examination of documentation (request from contractor)	<ul style="list-style-type: none"> • Facility processing capacity and methods • Waste management structure • Financial status, etc.
On-site confirmation	On-site inspection (visit contractor)	<ul style="list-style-type: none"> • Facility operation status • Environmental measures, impact • Staff morale, etc.
	Local residents	<ul style="list-style-type: none"> • Vibration, noise, effects of foul odors on the vicinity • Status of vehicles entering/exiting waste-management facilities • Communication with local residents, etc. (confirm on the ground)

(3) Specific examples of desirable points to check

Overleaf is a reference checklist of points to confirm when assessing intermediate-stage waste-treatment contractors, end-stage disposal contractors, collection and transportation contractors. (compiled based on the Report on Investigations into Rating Methods for Industrial Waste Treatment Contractors (Ministry of the Environment, August 2002).

* Currently, the Environment Ministry's *Preferred Waste-Management Contractors* program is under consideration for the establishment of a general, wider system to make public the standards of assessment and contractors that meet these standards. Thus it would be advisable to apply the results of this study to the following tables, "Selection of Waste-Management/Recycling Contractors" and "Checklist of Points to Confirm."

Table: Checklist of important points to confirm when assessing intermediate-stage waste-management contractors

Major Issues	Lesser Issues	Required by law	Checklist item	Checklist	Confirmation method(s)				
					City	Doc. Check	On-site check	Locals	
Permit	Business permit		Consigned waste material is registered to be dealt with.						
	Facility permit		Permit is valid through the handling period. Is the waste management facility licensed for the industrial waste to be handled? Target facility type and scale are covered by Article 15 of the appropriate Law.						
Facilities	Status of facilities		There is a truck scale.						
			Area dealing with waste materials is all paved.						
			Most work is structured to take place inside.						
			Anti-dust equipment, such as ventilators and dust-collection systems, are in place.						
	Management status inside facility			There is a drainage system on-site.					
				Waste water passes through grease-trap and sedimentary-layer systems.					
				No bad odors emitted.					
				No visible dispersal of waste materials throughout the facility site.					
				No visible dispersal of waste materials outside the facility.					
				Transshipment and/or storage permits obtained from prefectural governor or other authority.					
				Storage configuration (enclosure, etc.) conforms to storage standards.					
				Signboards indicating locations of transshipment/storage areas are on site.					
Situation outside facility			Stored quantities are appropriate for storage capacity (not over-filled).						
			Waste materials stacked up outside are within height limits.						
Waste handling	Storage facilities		No unpermitted waste materials are in storage.						
			The content of all waste materials brought in is confirmed on acceptance to the site.						
			Accepted waste materials are stored in conformity with relevant laws.						
			Waste storage areas are defined and their boundaries clearly indicated.						
	Management of accepted waste			Waste is not stored outside these storage areas.					
				Waste is not stacked up higher than fences. Measures to ensure the clear separation of waste are implemented, so as to facilitate recycling.					
	Abs. value of throughput			A system capable of analyzing the nature of accepted waste materials is in place.					
				Annual throughput is compared with processing capacity etc., and is appropriate. Verifiable that actual waste processing does not exceed the processing capacity deemed in the permit.					
	Processing capacity			Facilities are appropriate for the said waste-management contractor's processing methods.					
				Post-processing waste is stored indoors when its condition so requires.					
	Processing methods			All the business clients of collected waste can be confirmed.					
				It can be confirmed that the party dealing with detritus designated for incineration has the capacity to accept it on a stable basis.					
Storage of detritus			It can be confirmed that detritus designated for landfill can be disposed of on a stable basis over the next year.						
			Retention facilities have sufficient capacity, in line with their waste-processing throughput, in the case of mixed construction waste materials; is the appropriate sorting equipment on site?						
Stability of post-processing detritus			Administrative guidance has been carried out in the last 5 years.						
			Retention facilities have sufficient capacity, in line with their waste-processing throughput, in the case of mixed construction waste materials; is the appropriate sorting equipment on site?						
Retention facilities			Administrative guidance has been carried out in the last 5 years.						
Management confirmation	Admin. guidance		Administrative guidance has been carried out in the last 5 years.						
Environmental measures	Meeting environmental regulations		No problems exist with vibration, noise or foul odors.						
			To prevent pollution, an impermeable base is installed along with the drainage equipment.						
			To prevent dust, a water-spraying system is installed.						
			Wastewater is not contaminated.						
Financial control	Accounting		In the case that equipment releases exhaust gas, it complies with the state or municipality's regulatory standards.						
			(In the case of incineration equipment) Dioxin density falls below standard levels.						
			Accounting domains are clearly delineated for each industrial-waste treatment section.						
			Waste treatment costs can be explained in general terms.						
Office management	Contracts		Waste treatment costs do not differ substantially from those of other similar businesses in the same area.						
			Financial statements are updated.						
			Retain the funds required to deal with untreated waste materials.						
			Liabilities do not exceed assets.						
Crisis management	Establishment of crisis-management system		Contracts have been made in writing with all waste consigners.						
			The contract is not based on recommissioning.						
			Using contract documentation that complies with Article 8-4, Paragraph 2 of the Waste Management Regulations.						
			The contract is retained for 5 years.						
Information disclosure	Approach to information disclosure		Able to confirm that a manifest is being used for all industrial-waste materials.						
			A manifest in compliance with Article 8-21 of the Regulations is being used.						
			The manifest is retained for 5 years.						
			Delivery and return of the manifest are carried out appropriately.						
Personnel management	Staff morale, attitude		Using an electronic manifest.						
			Using an account ledger that complies with Article 10-8, Paragraph 1 of the Waste Management Regulations.						
			Account ledgers are retained for 5 years.						
			It can be confirmed that the Daily Labor Report is completed every day.						
Other	Executives' morale		A crisis-management manual has been created, and staff understand it.						
			A system for emergency contacts has been created.						
			In order to respond to environmental pollution and disasters, measures to take out environmental insurance are in place.						
			Emergency drills are conducted at regular intervals.						
Personnel management	Framework for staff relations		Each type of record and material is prepared and available for rapid dissemination when requested.						
			Account ledgers are in a disclosable state.						
			The inside of the facilities are open to outside stakeholders.						
			If a party to a public-hazard prevention convention or environmental-protection convention, is it abiding by this/these.						
Personnel management	Staff morale, attitude		Holding regular meetings with local residents.						
			No anti-facility signage is on display.						
			Staff card-based workplace management is being carried out; furthermore, a framework for staff duties has been established.						
			Staff benefit packages are being maintained.						
Personnel management	Training		Staff greet customers properly.						
			Service uniform and hat, with good grooming and appearance.						
			Staff have undergone at least 1 internal or external training session about waste materials (laws and technology) in the last year.						
			With waste-management work, the necessary qualified workers are employed, or training for the relevant qualification is taking place.						
Other	Procedure manual		The engineering manager is always on site.						
			The engineering manager is fully familiar with equipment maintenance procedures.						
			A procedure manual designating waste-management work and machinery operation exists.						
			Executive workers have a full understanding of business operation and are able to explain it in a proactive way.						
Other	Maintenance of facilities		They are able to express clearly the goals and management concepts of the business.						
			Maintenance of offices, storage buildings and so on is being carried out appropriately.						

Table: Checklist of important points to confirm when assessing final-stage waste-management contractors

Major Issue	Lesser Issues	Required by law	Checklist item	Checklist	Confirmation method(s)				
					City	Doc. Check	On-site check	Locals	
Permit	Business permit		Consigned waste material (waste category) is confirmed to be dealt with. Permit is valid through the handling period.						
	Facility permit		Target facility type and scale are covered by Article 15 of the appropriate Law.						
Facilities	Status of facilities		There is a truck scale.						
			A controlled-type landfill site should be equipped with a multilayer seepage control work or a seepage control work of more than 1cm in thickness.						
			Field offices are in place.						
			Equipped with a leachate controlling reservoir with adequate capacity according to the size of the landfill area and the rainfall level.						
			Facilities and equipments for consignment inspection are in place.						
	Management status inside facility		The facilities are adequately enclosed and there is a gate with a locking mechanism.						
			No bad odors emitted.						
			No visible dispersal of waste materials throughout the facility.						
			Excessive amount of collected waste that goes beyond the facility's processing capacities is not being accumulated.						
			No administrative guidance has been carried out in the last 5 years.						
			A management plan for facility maintenance has been created and followed.						
	Situation outside facility		Routine facility and function checkups are properly being carried out.						
		Operation management is being carried out based on the landfill management planning.							
		No visible dispersal of waste materials outside the facility.							
Waste handling	Management of accepted waste		No foul odor is confirmed on the border of the facility.						
			All the consigned wastes are measured at the time of acceptance.						
			The contents of the industrial waste are confirmed every time the consigned waste is brought in, by developmental testing in the case of an inert-type sanitary landfill site and by cross-checking the consigned waste with the samples in the case of a controlled-type landfill site.						
	Landfill management		A system capable of analyzing the nature of accepted waste materials is in place.						
			No unpermitted waste materials are in storage.						
			It can be confirmed that the inside of the landfill is being kept in aerobic condition from the leachate condition in the case of a controlled-type landfill site or from the condition of internally retained water in the case of an inert-type sanitary landfill site.						
			Discharged water is inspected more than once a month and the results or analysis meet the standards.						
	Processing capacity		Groundwater in the surrounding area is regularly checked more than once a month, with analysis results satisfying the environmental standards.						
	Landfilled waste		It can be confirmed that the practice of covering with soil on the spot is carried out on a daily basis.						
			The site has more than one year equivalent of remaining landfill capacity.						
		The type, quantity as well as characteristics of the landfilled waste can be confirmed from the records.							
Financial control	Accounting		A controlled-type landfill site should be able to prove that no hazardous substance is eluted from the landfill site over a long period of time.						
			No problems exist with vibration, noise or foul odors.						
	Accounting fundamentals		Water pollution is not confirmed (for both groundwater and percolating water).						
			Accounting domains are clearly delineated for each industrial waste treatment.						
Office management	Contracts		Waste treatment costs can be explained in general terms.						
			waste treatment costs do not differ substantially from those of other similar businesses in the same area.						
			Financial statements are updated.						
	Control manifest		The funds required for proper maintenance after a completion of landfill disposal are retained.						
			Liabilities do not exceed assets.						
	Records		Contracts have been made in writing with all waste consigners.						
			The contract is not based on recommissioning.						
Crisis management	Establishment of crisis-management system		Using contract documentation that complies with Article 8-4, Paragraph 2 of the Waste Management Law.						
			The contract is retained for 5 years.						
			Descriptions are detailed and written out carefully.						
Information disclosure	Approach to information disclosure		Able to confirm that a manifest is being used for all industrial-waste materials.						
			A control manifest in compliance with Article 8-21 of the Waste Management Law						
	Relations with local residents		A control manifest is retained for 5 years.						
		Delivery and return of the control manifest are carried out appropriately.							
Personnel management	Framework for staff relations		Using an electronic control manifest.						
			Using an account ledger that complies with Article 10-8, Paragraph 1 of the Waste Management Law.						
	Staff morale, attitude		Account ledgers are retained for 5 years.						
			It can be confirmed that the Daily Labor Report is completed every day.						
	Training		A crisis-management manual has been created, and staff understand it.						
		A system for emergency contacts has been created.							
Other	Executives' morale		In order to respond to environmental pollution and disasters, measures to take out environmental insurance are in place.						
			Emergency drills are conducted at regular intervals.						
Maintenance of cleanliness	Approach to information disclosure		Each type of record and material is prepared and available for rapid dissemination when required.						
			Account ledgers are in a disclosable state.						
	Relations with local residents		The inside of the facilities are open to outside stakeholders.						
			in a party to a public-nazaru prevention convention or environmental-protection convention, it is obliged to do this.						
Framework for staff relations		Holding regular meetings with local residents.							
		No anti-facility signage is on display.							
Staff morale, attitude		Staff card-based workplace management is being carried out; furthermore, a framework for staff duties has been established.							
		Consultation services for employees are properly provided.							
Training		Staff turnover is not at a high level.							
		Staff greet customers properly.							
Engineering manager		Service uniform and hat, with good grooming and appearance.							
		Staff have undergone at least 1 internal or external training session about waste materials (laws and technology) in the last year.							
Procedure manual		With waste-management work, the necessary qualified workers are employed or training for the relevant qualification is taking place.							
		The engineering manager is always on site.							
Executives' morale		The engineering manager is fully familiar with equipment, maintenance procedures.							
		A procedure manual designating waste-management work and machinery operation exists.							
Maintenance of cleanliness		Executive workers have a full understanding of business operation and are able to explain it in a positive way.							
		They are able to express clearly the goals and management concepts of the business.							

Table: Checklist of important points to confirm when assessing waste collection/transportation contractors

Major Issues	Lesser Issues	Required by law	Checklist item	Checklist	Confirmation method(s)			
					City	Doc. Check	On-site check	Locals
Permit	Business permit		Have obtained permits from prefectural governors who have jurisdiction over the area where waste is generated.					
			Have obtained permits from prefectural governors who have jurisdiction over the area where waste treatment is carried out.					
			Permit is valid through the handling period.					
Transportation facilities	Vehicle equipment /facilities		The scope of business to be consigned conforms to those specified in the permit.					
			It can be confirmed that vehicles, equipment as well as specific containers appropriate for collection/transportation of industrial waste are in place.					
			Waste littering prevention countermeasures have been taken, including pulling up the top.					
			Fire extinguishers are in place.					
			Keeping a vehicle inspection book					
			Unnecessary items/goods necessary for business operation are not loaded on vehicles.					
Collection and transportation	Relations with businesses dealing with waste treatment/disposal		Fences for over-loading are not being installed on vehicles.					
			Not being avoided from businesses dealing with waste treatment/disposal.					
			Special containers for accepting consigned waste, etc., are in place: or able to carry out separated transportation.					
Transshipment / storage	facilities for transshipment /storage		Not storing waste, if haven't obtained a permit.					
			If in storage, the waste is stored in the facility specified in the permit.					
			Have obtained necessary permits from prefectural governors for transshipping/storing waste.					
			Storage configuration (enclosure, etc.) conforms to storage standards.					
			Billboards are in place to show the area/place for transshipment/storage.					
			Stored quantities are appropriate for storage capacity (not over-filled).					
Environmental measures	Meeting environmental regulations		Waste stacked up outside are within height limits.					
			No unpermitted industrial waste materials are in storage.					
			No problems exist with vibration, noise or foul odors.					
Management confirmation	Obtaining ISO certificates and compliance		To prevent pollution, an impermeable base is installed along with the drainage equipment.					
			Have obtained ISO (or is planning to obtain ISO).					
			No administrative guidance has been carried out in the last 5 years.					
Finance control	Accounting		There were accidents and complaints from local residents.					
			Accounting domains are clearly delineated for each industrial-waste treatment.					
	Accounting fundamentals		Waste treatment costs can be explained in general terms.					
			waste treatment costs do not differ substantially from those of similar businesses in the same area.					
	Contracts		Financial statements are updated.					
			Liabilities do not exceed assets.					
Control manifest		Contracts have been made in writing with all waste consigners.						
		The contract is not based on recommissioning.						
		Using contract documentation that complies with Article 8-4, Paragraph 2 of the Waste Management Regulations.						
		The contract is retained for 5 years.						
Accounting ledgers		Account ledgers are retained for 5 years.						
		It can be confirmed that the daily Labor Report is completed every day.						
Preparation against an accident	Establishment of crisis-management system.		Emergency drills are conducted at regular intervals.					
			A crisis-management manual has been created, and staff understand it.					
			A system for emergency contacts has been created.					
Information disclosure	Approach to information disclosure		Emergency drills are conducted at regular intervals.					
			Each type of record and material is prepared and available for rapid dissemination when necessary.					
Framework for staff relations	Framework for staff relations		Account ledgers are in a disclosable state.					
			The inside of transshipment and storage facilities (if they have) is open to outside stakeholders.					
			Staff card based workplace management is being carried out: furthermore, a framework for staff duties has been established.					
	Training		Staff benefit packages are being maintained.					
			Staff turnover is not at a high level.					
			Staff greet customers properly.					
Procedure manual		Service uniform and hat, with good grooming and appearance.						
		Staff have undergone at least 1 internal or external training session about waste materials (laws and technology) in the last year.						
Other	Executives' morale		With waste collection/transportation work, the necessary qualified workers are employed, or training for the relevant qualification is taking place.					
			A procedure manual designating waste-management work and machinery operation exists.					
			Executive workers have a full understanding of business operations and are able to explain it in a proactive way.					
Maintenance of cleanliness	Maintenance of cleanliness		They are able to express clearly the goals and management concepts of the business.					
			Maintenance of offices, storage buildings and so on is being carried out appropriately.					

4) Procedures for on-site inspection

In selecting a waste-management or recycling contractor, it is important to visit the site, gaining specific information as well as assessing and confirming the actual operation conditions visually.

In conducting a screening of a contractor, it is desirable for the waste discharger to investigate, by obtaining from the waste-management/recycling business, documents covering such things as an outline of financial history; the Waste Management Law materials relating to permits, facilities, etc.; disposal-site schematics; waste-treatment performance records; and financial statements.

The checklist items for an on-site inspection include the status of facility management; vehicle movements in and out of the site; the status of waste storage; the remaining capacity of final disposal sites; and the status of onward-shipping storage areas.

Further, to proceed effectively with an on-site inspection, it is desirable to acquire the relevant experience and skills. It is important to encourage the upskilling of inspectors through workshops and on-site training.

(1) Documents that should be obtained.

Prior to the waste discharger's undertaking an on-site inspection of the waste-management/recycling business, it is desirable to obtain documents from the contractor such as the following.

It is desirable to investigate any questions or points of clarification beforehand, and then confirm these at the time of the on-site inspection.

- **Company outline**

Financial history, organizational chart, personnel list, list of affiliated companies, etc.

- **Waste Management Law-related issues**

Licenses for collection and transportation work, details of facilities and structural diagrams, waste-treatment flowcharts, waste-treatment facility site plans, list of vehicles, etc.

- **Waste-treatment performance records**

Disposal-site schematics and list, waste-treatment performance records, various performance indicators (such as volume reduction rates (in the case of incineration), and recycling rates).

- **Financial statements**

Statement of assets and liabilities, profit-and-loss and supplementary statements, business report, etc.

(2) On-site inspection points to note

After having determined that a certain waste-management/recycling business poses a low risk of inappropriate waste handling, it would be effective to confirm the following points when conducting an on-site inspection.

- **Management of facilities**

Aging of equipment, night-time/early-morning operation; problems with smoke damage/noise/foul odors, etc.; absence of technicians/overseers, etc.

- **Vehicle movements**

Vehicle movements in relation to facility processing capacity, vehicle movements at night, suspicious vehicle movements, etc.

- **Storage levels of waste materials, etc.**

Storage of waste materials in large quantities, sudden increases/decreases in storage

levels, etc.

- Other

In the case where there is a final disposal site, consider its remaining storage space.

In the case where there is an onward-shipping storage site, confirm the presence or absence of large quantities of unsorted waste, entry/exit of other businesses' vehicles, unlicensed equipment (incinerators, crushing machines, etc.).

In the case where the business is also handling general waste materials, whether or not it is mixing them with industrial waste, and so on.

(3) Upskilling of investigators

In the case where there is a final disposal site, consider its remaining storage space.

In the case where there is an onward-shipping storage site, confirm the presence or absence of large quantities of unsorted waste, entry/exit of other businesses' vehicles, unlicensed equipment (incinerators, crushing machines, etc.).

In the case where the business is also handling general waste materials, whether or not it is mixing them with industrial waste, and so on.

5) Preparation of appropriate contract documentation

Under the Waste Management Law, it is stipulated that the waste discharger shall conclude a written contract directly with each party: the relevant waste collection/transportation business, and disposal businesses (intermediate handler and final disposer).

The items to be recorded in the contract are specified under the Waste Management Law. Specifically, these include the types and quantities of consigned waste, the location of the final destination of the waste to be transported, the location of the site for disposal or recycling, treatment methods, processing capacity of facilities, the period of validity of the contract, and the contracted fee.

It is effective to attach additional documents specifying further items of record that cannot be confirmed in the contract. For example in the case where waste materials are to be recycled and turned into saleable materials, details may be provided of where sales will take place; or in the case where waste is recycled, the site for disposal of residue may be noted.

(1) Contractual procedure

Under the Waste Management Law, it is stipulated that the waste discharger conclude contracts directly with each waste collection/transportation business and industrial-waste disposal business (intermediate-stage and final disposal) regarding the consigned waste. It is expressly forbidden for the waste discharger to enter into a contract with a collection/transportation business only, without establishing a contract with a disposal business.

Furthermore, verbal contracts are invalid: contracts must always be concluded in writing (Paragraph 3 of Article 6-2 of the Cabinet Order of the Waste and Public Cleansing Law (the Waste Management Law))

* The waste discharger must enter into a contract with a industrial-waste collection/transportation business and disposal business that is licensed to process or recycle the said waste materials (Paragraph 4 of Article 12 of the Waste Management Law).

(2) Items to be recorded in the contract

The following items are stipulated in the Waste Management Law to be recorded in an industrial-waste management contract.

<Items stipulated in the Waste Management Law to be recorded in an industrial-waste management contract>

- (1) The types and quantities of industrial-waste materials to be consigned
- (2) (In the case where transportation is contracted for) the location of the waste's final destination
- (3) (In the case where disposal or recycling is contracted for) the location of the waste-processing or recycling site, methods, and facility processing capacity
- (4) (In the case where a service other than final disposal is contracted for) the location of the site for final disposal, methods and processing capacity of the facility
- (5) Other items (Article 8-4-2 of Ministerial Ordinance)
 - 1) The contract's period of validity
 - 2) The amount that the consignor is to pay to the consignee
 - 3) (In the case where the consignee is a waste-disposal company) the work parameters
 - 4) (In the case where the contractor is to undertake onward shipment or storage) the location of the site, the types of industrial waste that can be stored, and the storage limits
 - 5) (In the case where the contractor is to undertake onward shipment or storage of stabilized industrial waste) items relating to the permissibility or otherwise of mixing with other waste materials
 - 6) The following items of information connected with appropriate waste management:
 - Items concerning the nature and packaging of waste
 - Items concerning the deterioration of the waste under normal storage conditions, and items concerning changes in the nature of volatile industrial-waste materials
 - Items concerning troubles that may arise from mixing with other waste materials
 - Other items concerning caution in the handling of the industrial-waste materials
 - 7) Items concerning notification to the consignor on the completion of the contracted work
 - 8) Items concerning the handling of unprocessed waste in the event of the dissolution of the contract
- (6) Documents that should be submitted with the contract (Regulation 8-4)
 - 1) Duplicates of permits

(3) Other points to note regarding contracts

The above items are those stipulated in the Waste Law to be recorded in a contract, however there are supplementary items that may be determined between the waste discharger and the contractor(s) (collection/transportation business, disposal business) to enhance waste processing/recycling methods. For example, the place of sale of recycled waste materials, the place where post-recycling residue is to be disposed of, and so on.

Further, in the case where the waste discharger concludes separate contracts with collection/transportation businesses and disposal businesses, attaching common documentation to each makes it possible to manage the waste flowpath.

Moreover, in the case where changes in circumstances require revision only to attached documentation, it is important to keep a dated record of this so as to avoid problems at a later point.

6) Follow-up of a contracted business dealing with waste treatment/recycling

Businesses discharging industrial waste are required to confirm/verify whether the consigned in-house waste has been properly treated/recycled by a contracted business dealing with treatment/recycling through the control manifest, etc., on a daily basis.

In order to properly carry out daily confirmation/verification, the system of the control manifest management must be fully understood. Since the control manifest is the only tool for businesses discharging industrial waste to monitor the condition of their consigned waste after handing it over to a contractor, the management must be strictly carried out.

Moreover, it is important to regularly conduct on-site investigations so as to verify how the consigned waste is actually being treated. In so doing, it is desirable to specify the frequency of investigation, investigators as well as matters to be investigated.

(1) Daily check (the control manifest management)

Businesses discharging industrial waste are required to issue and deliver the control manifest when they hand over the waste to a contracted business for waste treatment/disposal. In cases where the following circumstances occur after contracting out waste disposal, the said business must first verify the current conditions of transportation/disposal of their consigned waste without delay, take measures necessary to eliminate and prevent obstacles in maintaining living environment, and submit a report on the details of measures taken to jurisdictional prefectural governors within 30 days

- In cases where the control manifest sheet-B2 for transportation control and sheet-D for the completion of disposal is not returned within 90 days from the day of delivery (60 days for specially controlled industrial waste)
- In cases where the control manifest sheet-E for the completion of final disposal is not returned within 180 days from the day of delivery
- In cases where the issuer receives a copy of the control manifest, in which the particulars specified by the law, or a copy of the false control manifest

Table: the Specified Period for the respective sheets of control manifest (copy, sheet-B2, sheet-D and sheet-E) to be returned

Control manifest	Industrial waste	Specially controlled industrial waste
· sheet-B2, D	90 days from the day of delivery	60 days from the day of delivery
· sheet-E	180 days from the day of delivery	180 days from the day of delivery

(2) Understanding of the current status (periodic on-site inspection)

i) Frequency of investigation

Although it is desirable to visit relevant facilities to conduct on-site inspection as frequently as possible, realistically, once or twice a year per contractor is considered reasonable.

ii) Investigator

It is desirable that the person in charge of the waste management department as well as the staff in charge of waste management at the workplace go together to conduct an on-site inspection.

iii) Matters to be investigated

Basically, matters similar to those at the time of initial on-site inspection for appointment should be investigated. The difference between the two would be that verifying storage conditions of forms related to a company's discharged waste (control manifest, etc.), etc., should be added as a new investigation item.

3.3 The operation of control manifest

The industrial waste management form (hereinafter referred to as control manifest) system is a system whereby businesses discharging industrial waste are required to issue the control manifest to a contractor for treatment/recycling of consigned waste and to confirm that the consigned waste is being properly treated/recycled as per contract, through receiving the returned copy of control manifest.

Businesses discharging industrial waste are required to operate the control manifest as specified in the Waste Management Law that also prescribes penal provisions to be applied for nonuse of control manifest or false control manifest.

The control manifest is the only tool whereby a company can trace and determine the location of the industrial waste discharged from their business activities. It is thus important to bring together all the information to make it available at any given time, if need be. Moreover, the accurate and proper use of the control manifest in line with the current circumstances can be effective not only in reducing risks of inappropriate treatment or illegal dumping of the consigned industrial waste but also in helping businesses discharging industrial waste have a correct understanding of the amount of in-house waste discharge as well as how their waste is being treated/recycled.

* The following pages describe the operation of the paper manifest control, but it is possible to use the electronic control manifest system, whereby the manifest information is to be exchanged through information and telecommunications networks (the Japan Industrial Waste Technology Center-run-electronic control manifest system specified by the Waste Management Law).

By businesses discharging industrial waste using the electronic control manifest, there should be a number of advantages to secure the control manifest management including: office work including cross-checking and verification of control manifest shall be alleviated; each of the parties involved in the process will not have to store control manifests in paper form; automatic notification shall be sent out in the case where the disposal of industrial waste is completed or where the control manifest was not returned within the specified period, etc. It is thus expected that this electronic control manifest shall be utilized proactively.

1) The outline of the control manifest system

Businesses discharging industrial waste must issue and deliver the control manifest, by category and by destination, to a contracted business dealing with collection/transportation at the time and the place of handover of the consigned waste.

The control manifest, which is usually a binding of seven-fanfold sheets, must be delivered to a business dealing with intermediate treatment through a business dealing with collection/transportation and must be kept respectively for the time being.

(1) Preparation of control manifest

In contracting out the collection/transportation, treatment/disposal of industrial waste, according to the internal rules, the control manifest should be prepared and filled out completely including the kind and amount of the waste, and must be delivered to a contracted business dealing with collection/transportation together with the consigned waste. In so doing, a set of control manifest, by category and by destination (where the consigned waste is transferred to), must be issued every time the consigned industrial waste is handed over

Concerning the preparation and issuance of control manifest, the following matters must be in accordance with the internal rules.

- The form of control manifest to be used
- Entry method of control manifest and matters to be entered
- Measures to be taken in cases where the control manifest is not returned within the specified period, etc.

(2) Components of the control manifest

The control manifest is usually a binding of seven-fanfold sheets and each sheet has a specific role as described below:

- **Sheet-A (for waste dischargers to fill out: to be stored at waste dischargers waste)**
This is a copy of the control manifest issued by waste dischargers. Waste dischargers fill out, issue and deliver the control manifest to collection and transportation contractors. In so doing, the sheet-A should be detached and kept as a copy.
- **Sheet-B (for collection and transportation contractors to fill out: Sheet-B1 to be stored at collection and transportation contractors, Sheet-B2 to be stored at waste dischargers)**
This is a sheet to confirm that collection and transportation contractors received the consigned industrial waste and properly carried it to intermediate treatment facilities. Collection and transportation contractors cross-check and confirm with sheet-C2, set the seal on to the applicable box in sheet B1 as well as B2, keep B1 at hand and return B2 to waste dischargers.
- **Sheet-C (for intermediate treatment contractor to fill out: Sheet C1 to be stored at intermediate treatment contractor, Sheet-C2 to be stored at collection and transportation contractors)**
This is a sheet to confirm that intermediate treatment contractors receive the consigned industrial waste and applied proper treatment. After the completion of treatment, intermediate treatment contractors keep C1 at hand and return C2 to collection and transportation contractors.
- **Sheet-D (for intermediate treatment contractors to fill out: to be stored at waste dischargers)**
This is a copy of treatment proof for waste dischargers. Intermediate treatment contractors return this sheet to waste dischargers after the completion of treatment.
- **Sheet-E (for intermediate treatment contractors to fill out: to be stored at waste dischargers)**
Intermediate treatment contractors verify the returned secondary control manifest issued by intermediate treatment contractors (to confirm that final disposal was properly carried out), set the seal on to the applicable box in sheet-E and return it to waste dischargers.

(3) The flow of the control manifest

The control manifest that waste dischargers issued and delivered to collection and transportation contractors, as a “form to control industrial waste”, shall travel together in a unified manner with the consigned waste until the completion of the final disposal of the said waste or recycled as valuable resources. When treatment/disposal or recycling of the consigned industrial waste is completed, the relevant sheet of the control manifest should be returned as a notification and be stored at the waste dischargers.

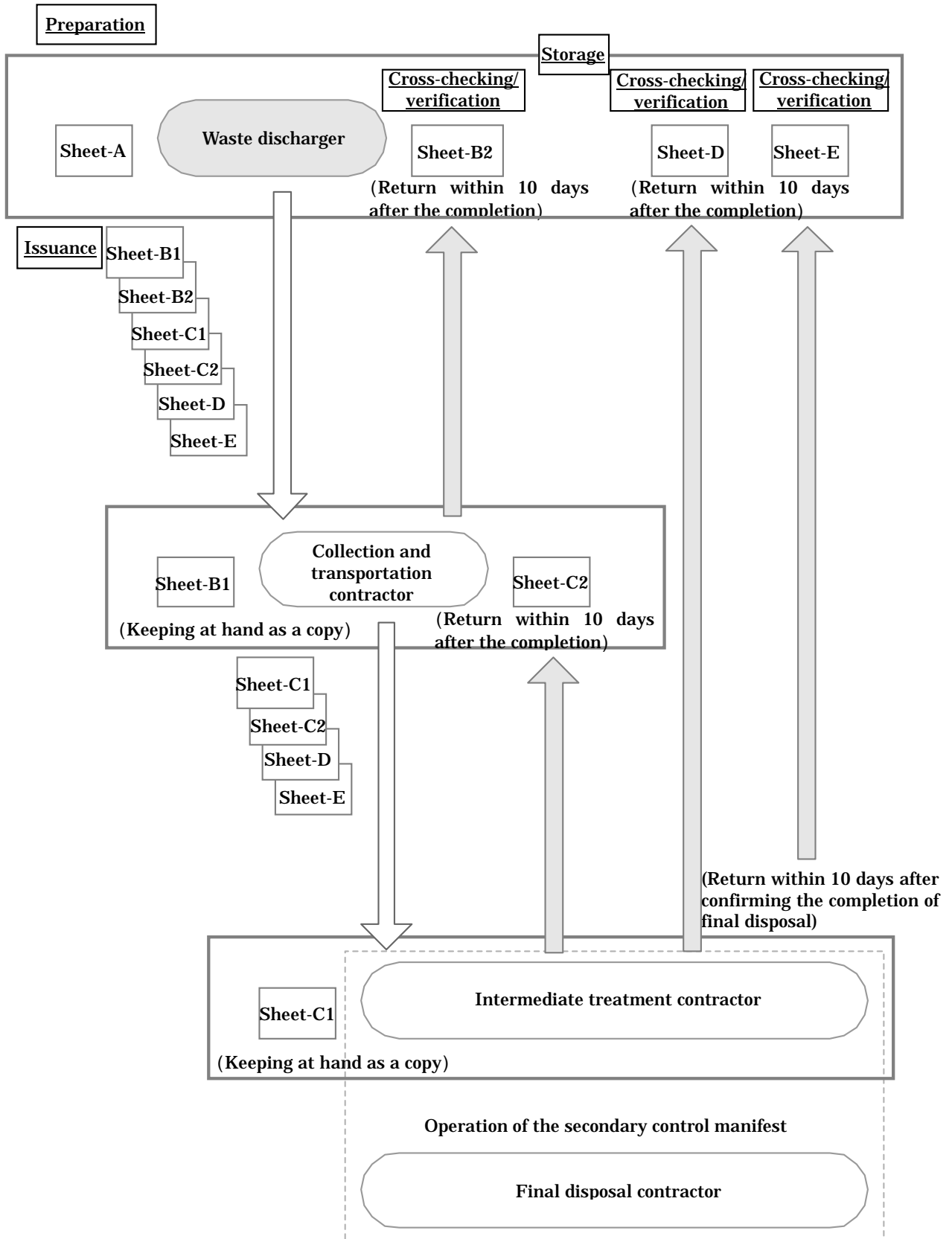


Figure Flow of control manifest

2) Issuance of the control manifest

Businesses discharging industrial waste, under their own responsibilities, must issue and deliver the control manifest to a contracted business dealing with waste collection/transportation at the time of handing over the consigned waste. A set of manifest must be issued and delivered by industrial waste category and by destination.

Key entries on the control manifest include the kind and amount of a consigned industrial waste, the name of a contracted business dealing with waste collection/transportation, the destination (where the consigned waste is transferred to) and the name of a contracted business dealing with waste disposal.

(1) Issuance procedure of the control manifest

In contracting out industrial waste for collection/transportation or treatment/disposal of industrial waste, the control manifest must be issued (Article 12-3 of the Waste management Law). The control manifest, by category and by destination, must be prepared in advance and filled out completely by businesses discharging industrial waste. The sheet-A should be kept at hand as a copy for the records and the rest should be handed over to a collection and transportation contractor or to a disposal contractor.

In cases where businesses discharging industrial waste did not properly issue the control manifest or issued false control manifest, and if the said consigned industrial waste was inappropriately treated or illegally dumped, the said business discharging industrial waste shall be subjected to administrative punishments such as the order on restoration to its original state or fines. Therefore, the staff in charge of waste management at the workplace must fill out the form properly according to in-house rules.

(2) Entries on the control manifest

Key entries on the control manifest are listed as below.

- The kind of a consigned industrial waste
- The amount of a consigned industrial waste *
- The name of a contracted business dealing with collection/transportation and the destination (where the consigned waste is transferred to)
- The names of waste disposal businesses (business dealing with intermediate treatment, business dealing with final disposal and business dealing with recycling) who are to undertake waste disposal services of a company's consigned waste.

- (*) In the case where waste dischargers hand over the consigned waste to contractors without measuring its weight, waste dischargers should make a tentative entry such as "one two-ton truck", etc., and write down the accurate weight on the side based on the information from contractors who measured the weight using a platform scale, etc. (It is desirable to specify the amount of industrial waste on a weight basis whenever possible.)

Entries in the control manifest at the time of issuance
 (Please make sure to fill out all the sheets (A to E) together.)

Fill in when the department, etc., wishes to use its own reference number

Name of issuer

Name and location of the place of business where industrial waste is discharged

Specify the quantity, using the same unit as used in the contract (Enter the number of pieces, etc.)

Explain the mode of packing in concrete terms

Specify the name of the item

Method of disposal specified in the contract.

Specify hazardous property in the case of specially controlled industrial waste

Points of concern in transporting or disposing the waste

Not necessary to fill in this space

Name, location, etc., of the destination where the waste is transferred.

Not necessary to fill in the shaded area for sheet-A

Enter the date of verification respectively on the sheet-A when sheet-B2, D and E are returned.

Date of issuance
Specify the date when the consigned waste is handed over

Name, address, etc., of business discharging industrial waste

Specify the category of the waste to be consigned

Name, address, etc., of the final disposal site

Name, address, etc., of a business dealing with collection/transportation

Name, address, etc., of a business dealing with waste disposal

Acknowledgement by the person in charge of transportation
Signature should be appended here when the person in charge of transportation receives the waste.

Date of issuance	Issuance number	Reference number	Issuer	Name
Businesses (waste dischargers)	Name or appellation	Place of business (where industrial waste being discharged)	Name	Name
	Address	Phone number	Location	Phone number
Industrial waste	Category (ordinary industrial waste)		Category (Specially controlled industrial waste)	
	cinder	pieces of metal	flammable waste oil	cinder (hazardous)
	sludge	pieces of glass, concrete and ceramics	flammable waste oil (hazardous)	waste oil (hazardous)
	waste oil	slag	strong acid	waste sludge (hazardous)
	waste acid	rubble	strong acid (hazardous)	waste acid (hazardous)
	waste alkali	animal excrement	strong alkali	waste alkali (hazardous)
	waste plastic	dead animals	strong alkali (hazardous)	dust (hazardous)
	waste paper	dust	infectious industrial waste	waste designated by Cabinet Order No. 15 (hazardous)
	waste wood	waste designated by Cabinet Order No. 15	waste PCB, etc.	
	waste fiber	solid waste related to animals	waste asbestos, etc.	
	solid waste related to animals		designated sewage sludge	
	pieces of rubber		slag (hazardous)	
Industrial waste targeted for intermediate treatment	Name or appellation as well as issuance number, registration number(s) of the control manifest as described in the book as described in this column			
The site of final disposal	Appellation/Location/Phone number as described in the contract as described in this column			
Transportation consignee	Name or appellation	Place of transfer destination (for waste disposal)	Name	
	Address	Phone number	Location	Phone number
Disposal consignee	Name or appellation	Transshipment or storing	Name	
	Address	Phone number	Location	Phone number
Person in charge for transportation		Date of a completion of transportation		Amount of hazardous substance collected
Person in charge of disposal		Date of a completion of disposal		Date of a completion of final disposal
Place where final disposal of waste was carried out	Appellation/Location/Phone number		Date number indicated in the contract	

Publisher: National Federation of Industrial Waste

Verification	Sheet-B2
	Sheet-D
	Sheet-E

3) Cross-checking, verification and storage of the control manifest

Businesses cannot fulfill their responsibilities as a discharger just by issuing the control manifest. It is also a discharger's responsibility to cross-check, verify and properly store the returned control manifest.

Businesses discharging industrial waste receive the returned control manifest respectively from businesses dealing with waste collection/transportation as well as businesses dealing with intermediate treatment, and must verify the name of businesses, the sites of treatment/disposal, and the date of receipt of the returned control manifest, etc.

In cases where there were problems with entries on the returned control manifest or where the control manifest is not returned within the specified period, necessary measures must be taken according to internal rules on the operation of the control manifest.

Complete, problem-free control manifests should be stored properly according to the rules specified in the internal regulations after thoroughly cross-checked/verified.

(1) Cross-checking and verification

Regarding the returned control manifest (Sheet-B2, D and E), businesses must cross-check and verify whether collection/transportation and treatment/recycling of the consigned waste have been appropriately managed as contracted every time when the control manifest is returned (Paragraph 5 of Article 12-3 of the Waste Management Law). In particular, the name of contracted businesses, the site of disposal and the specified period for the control manifest to be returned must be verified.

In so doing, it is desirable to formulate internal rules regarding: who is to cross-check/verify (whether the control manifest should be returned to one central location within a company or to each site where the waste is being discharged), what measures to be taken in the event of a false control manifest, etc. In addition, the person who cross-checked/verified the returned manifest must report as to if there is any problem to the department in charge of waste management.

(2) Problems in operating the control manifest and measures to be taken

It is assumed that the following problems are likely to arise in operating the control manifest (The following problems may be likely to arise in operating the control manifest?). The staff in charge of waste management at workplaces is required to take appropriate measures when problems surface, according to the operation rule of the control manifest prescribed by the department in charge of waste management.

i) Responses in the event of the false control manifest, etc.

In cases where the issuer receives a copy of the control manifest, in which the particulars specified by the Waste Management Law, or a copy of the control manifest, in which false information are entered, the said businesses discharging industrial waste must first verify the conditions of collection/transportation and treatment by checking with, giving instructions to and reminding businesses dealing with waste collection/transportation or those with waste disposal, and then take measures necessary to eliminate and prevent obstacles in maintaining living environment. Moreover, within 30 days, they must report to a jurisdictional prefecture, etc., what measures taken in conformity to the Waste Management Law (Paragraph 7 of Article 12-3 of the Waste Management Law).

In cases where a business neglects to verify entries on the control manifest, leaving the situations as " matters specified in the Waste Management Law are not entered " or " false entries are found " , and neglects to take any necessary measures, including verification, instruction or reminders against businesses dealing with waste collection/transportation or those dealing with waste disposal, and if the relevant consigned industrial waste was inappropriately treated or illegally dumped, the said business shall be also subjected to administrative penalties such as the order on

restoration to its original state, etc.

ii) Responses to the cases where the control manifest is not returned

The control manifest must be returned to businesses discharging industrial waste within 10 days. If a necessary copy of the control manifest is not returned within the specified period businesses discharging industrial waste should press the said contractor to promptly return the manifest and find out the reason and circumstances for the delay.

Businesses discharging industrial waste are not responsible for non-return of the control manifest by specified due date. Yet, if a business leaves such a situation as it is and neglects to take any necessary measures, including verification, instruction or reminders, against businesses dealing with waste collection/transportation or those dealing with waste disposal, the said business will be also subjected to administrative penalties. Concerning the due date for the returned control manifest, it is also effective to build a system whereby confirmations, instructions or reminders are to be sent to the relevant businesses dealing with waste collection and transfer or those dealing with waste treatment/recycling prior to the expiry of the period specified by the Waste Management Law in terms of the reduction of inappropriate waste management risk.

(3) Storage

Regarding complete, problem-free control manifests, it is required to keep/store them for five years from the date of final cross-check/verification according to the Waste Management Law, (Paragraph 5 of Article 12-3 of the Waste Management Law), it is necessary to properly store them according to internal rules stipulated by the department in charge waste management.

Matters to be checked and to be implemented at the return of sheet-B2

Date of issuance	Issuance number	Reference number	Issuer	Name
Businesses (waste dischargers)	Name or appellation		Place of business (where industrial waste being discharged)	Name
	Address		Phone number	Location
Industrial waste	Category (ordinary industrial waste)		Category (specially controlled industrial waste)	
	cinder	pieces of metal	flammable waste oil	cinder (hazardous)
	sludge	pieces of glass, concrete and ceramics	flammable waste oil (hazardous)	waste oil (hazardous)
	waste oil	slag	strong acid	waste sludge (hazardous)
	waste acid	rubble	strong acid (hazardous)	waste acid (hazardous)
	waste alkali	animal excrement	strong alkali	waste alkali (hazardous)
	waste plastic	dead animals	strong alkali (hazardous)	dust (hazardous)
	waste paper	dust	infectious industrial waste	waste designated by Cabinet Order No. 15 (hazardous)
	waste wood	waste designated by Cabinet Order No. 15	waste PCB, etc.	
	waste fiber	solid waste s related to animals	waste asbestos, etc.	
	solid waste s related to animals		designated sewage sludge	
	pieces of rubber		slag (hazardous)	
	Industrial waste targeted for intermediate treatment	Name or appellation as well as issuance number (registration number) of the control manifest as described in the book as described in this column		
The site of final disposal	Appellation/Location/Phone number as described in the contract as described in this column			
Transportation consignee	Name or appellation		Place of transfer destination (for waste disposal)	Name
	Address		Phone number	Location
Disposal consignee	Name or appellation		Transshipment or storing	Name
	Address		Phone number	Location
Person in charge for transportation		Date of a completion of transportation	Amount of hazardous substance collected	Quantity (and unit)
Person in charge of disposal		Date of a completion of disposal	Date of a completion of final disposal	
Place where final disposal of waste was carried out	Appellation/Location/Phone number		(Site number indicated in the contract)	
			Verification	

Publisher: National Federation of Industrial Waste

The date of completion of transportation and a due date for the control manifest to be returned should be cross-checked/verified. The party in charge of transportation is required to return the sheet-B2 within 10 days after the completion of transportation as specified in the West Management Law.

* A transportation consignee is required to return sheet B2 within 90 days after the issuance of control manifest for industrial waste and within 60 days for specially controlled industrial waste. In cases where the said sheet is not returned within the specified period, the business discharging industrial waste is required to report to the administrative authorities within 30 days.

The date of verification for sheet-B2 should be entered in this column of 'sheet-A'. (It must be noted that it is not in the column of sheet-B2.)

3.27

* When the sheet-B2 is returned, the dates of completion of disposal as well as completion of final disposal should be left blank. If there was an entry in the said column, fact relevance needs to be found by checking with a

Matters to be checked and to be implemented at the return of sheet-D

3.28

The date of completion of disposal and the date of returned control manifest must be cross-checked and verified. The Waste Management Laws stipulates that a disposal consignee should return sheet-D within 10 days after the completion of disposal.

* A disposal consignee is required to return sheet-D within 90 days after the date of issuance for industrial waste and 60 days for specially controlled industrial waste. In cases where the sheet-D is not returned within the specified period, businesses are required to report to the administrative authorities within 30 days.

Date of issuance	Issuance number	Reference number	Issuer	Name			
Businesses (waste discharger's)	Name or appellation	Place of business (where industrial waste being discharged)	Name	Name			
	Address	Phone number	Location	Phone number			
Industrial waste	Category (ordinary industrial waste)		Category (specially controlled industrial waste)		Quantity (and unit)	Mode of packing	
	cinder	pieces of metal	flammable waste oil	cinder (hazardous)			
	sludge	pieces of glass, concrete and ceramics	flammable waste oil (hazardous)	waste oil (hazardous)	Name of industrial waste	Hazardous substance, etc.	Disposal methods
	waste oil	slag	strong acid	waste sludge (hazardous)			
	waste acid	rubble	strong acid (hazardous)	waste acid (hazardous)			
	waste alkali	animal excrement	strong alkali	waste alkali (hazardous)	waste designated by Onkmet Code No. 15 (hazardous)	Remarks (some dependence column)	
	waste plastic	dead animals	strong alkali (hazardous)	dust (hazardous)			
	waste paper	dust	infectious industrial waste				
	waste wood	waste designated by Onkmet Code No. 15	waste PCB, etc.				
	waste fiber	solid waste related to animals	waste asbestos, etc.				
	solid waste related to animals		designated sewage sludge				
	pieces of rubber		slag (hazardous)				
	Industrial waste targeted for intermediate treatment	Name or appellation as well as issuance number (registration number) of the control manifest as described in the book as described in this column					
The site of final disposal	Appellation/Location/Phone number as described in the contract as described in this column						
Transportation consignee	Name or appellation	Place of transfer destination (for waste disposal)	Name				
	Address	Phone number	Location	Phone number			
Disposal consignee	Name or appellation	Transshipment or storing	Name				
	Address	Phone number	Location	Phone number			
Person in charge for transportation		Date of a completion of transportation		Amount of hazardous substance collected	Quantity (and unit)		
Person in charge of disposal		Date of a completion of disposal		Date of a completion of final disposal			
Place where final disposal of waste was carried out	Appellation/Location/Phone number		(Site number indicated in the contract)				
			Verification				

* When sheet-D is returned, the date of completion of final disposal should be kept blank. If there was an entry in the said column, fact relevance needs to be found out by checking with a contractor.

The date of verification for sheet-D should be entered in this column of 'sheet-A'. (It must be noted that it is not in the column of sheet-D.)

Matters to be checked and to be implemented at the return of sheet-E

When sheet-B2, D and E are all returned, they should be stored for 5 years together with sheet-A.

29 3.

Date of issuance	Name or appellation	Issuance number	Reference number	Name	Issuer	Name
Businesses (waste discharger) #	Address		Place of business (where industrial waste being discharged)	Location		
	Phone number			Phone number		
Industrial waste	Category (ordinary industrial waste)		Category (specially controlled industrial waste)		Quantity (and unit)	Mode of packing
	cinder	pieces of metal	flammable waste oil	cinder (hazardous)		
	sludge	pieces of glass, concrete and ceramics	flammable waste oil (hazardous)	waste oil (hazardous)		
	waste oil	slag	strong acid	waste sludge (hazardous)	Name of industrial waste	
	waste acid	rubble	strong acid (hazardous)	waste acid (hazardous)	Hazardous substance, etc.	Disposal methods
	waste alkali	animal excrement	strong alkali	waste alkali (hazardous)		
	waste plastic	dead animals	strong alkali (hazardous)	dust (hazardous)		
	waste paper	dust	infectious industrial waste	waste designated by Ordinance No. 15 (hazardous)	Remarks (some dependence column)	
	waste wood	waste designated by Ordinance No. 15	waste PCB, etc.			
	waste fiber	solid waste related to animals	waste asbestos, etc.			
	solid waste related to animals		designated sewage sludge			
	pieces of rubber		slag (hazardous)			
	Industrial waste targeted for intermediate treatment	Name or appellation as well as issuance number (registration number) of the control manifest as described in the book as described in this column				
The site of final disposal	Appellation/Location/Phone number as described in the contract as described in this column					
Transportation consignee	Name or appellation		Place of transfer destination (for waste disposal)	Name		
	Address			Location		
Disposal consignee	Name or appellation		Transshipment or storing	Name		
	Address			Location		
Person in charge for transportation			Date of a completion of transportation		Amount of hazardous substance collected	Quantity (and unit)
Person in charge of disposal			Date of a completion of disposal		Date of a completion of final disposal	
Place where final disposal of waste was carried out	Appellation/Location/Phone number		(Site number indicated in the contract)			
						Verification

Publisher: National Federation of Industrial Waste

The dates of completion of final disposal and returned date must be cross-checked and verified. The Waste Management Laws stipulates that a disposal consignee should return sheet-E within 10 days after the completion of disposal.

* A disposal consignee is required to return sheet-E within 180 days after the date of issuance for industrial waste and 60 days for specially controlled industrial waste. In cases where the sheet-E is not returned within the specified period, businesses are required to report to the administrative authorities within 30 days.

The date of verification for sheet-E should be entered in this column of 'sheet-A'. (It must be noted that it is not in the column of sheet-E.)

* Whether the name of the site is the same as specified in the contract and written out in the same manner as per contract must be checked carefully. If it differs, the reason must be found out promptly by checking with a contractor. Reexamination of the contract, etc., should be also pursued.

Waste Recycling Governance Guidelines for Waste Generating Companies

Background Information

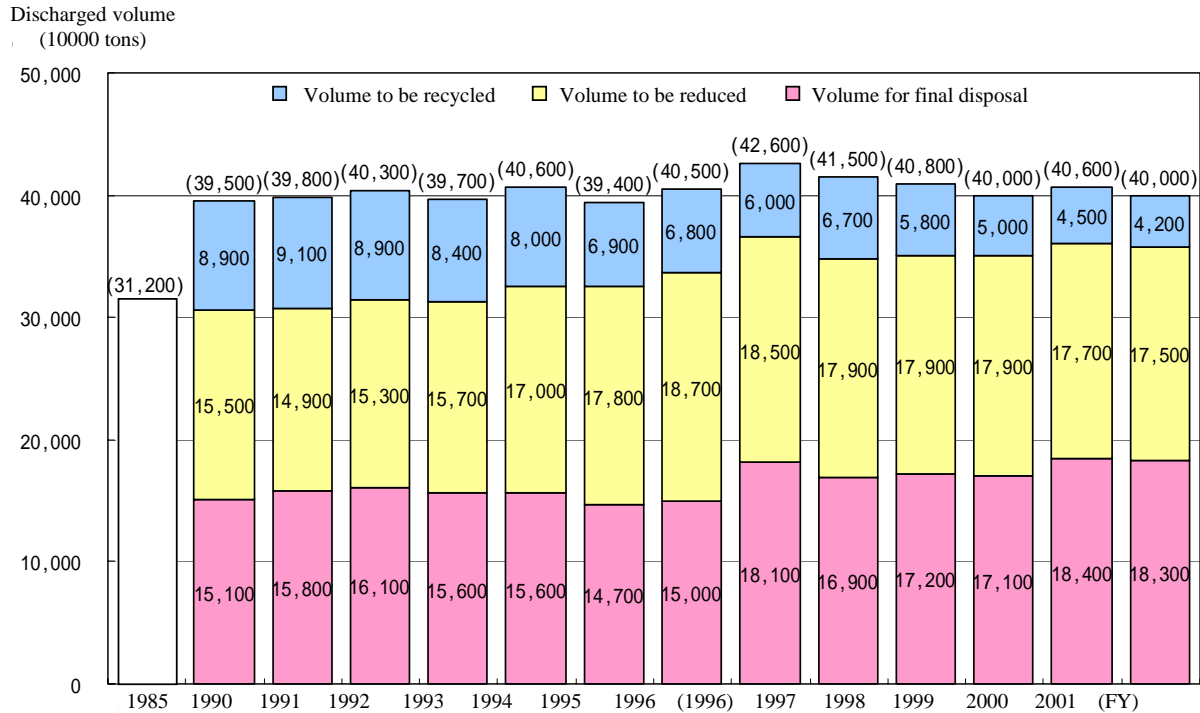
Part 1: Present situations on waste problems

Part 2: Examples of advanced waste management

Part 1: Present situations on waste problems

- Change in discharged volume of industrial wastes
- Trend of legal system concerning strengthening responsibilities of waste generating companies
- Recent, typical cases of inappropriate treatment and illegal dumping
- Status of inappropriate treatment and illegal dumping
- The State's measures to cope with illegal dumping

Change in discharged volume of industrial wastes



- The total volume of industrial wastes discharged in 2001 was about 400 million tons.
- The volume of decrease is gradually improving and final disposal volume is gradually decreasing thanks to intermediate treatments.
- Final disposal volume is 42 million tons and the remaining years of landfill sites, as of April 2002, is 4.3 years. --- Further promotion of 3R is necessary.

Trend of legal system concerning strengthening responsibilities of waste generating companies (1)

The major points of revisions on the Waste Management Law
(Prevention of illegal dumping and restoration to original state)

- Responsibility of waste generating companies and measures to restore to original state -

Enforcement of Waste Management

Law in 1970



Revision in 1976

- Rules on consignment standard
(Prohibition of outsourcing)
- Establishment of the rules on action order

In addition to the case that outsourcing was done against the consignment standard, it became possible to give action order for violation on submission of a manifest, negligence of responsibility to take care in spite of knowing inappropriate treatment, etc.

Revision in 2000

- Thorough accountability of waste generating companies (responsibility to take care)
- Expansion of the manifest system (Requirement to confirm to final treatment)
- Big extension of the companies to be given action order

Revision in 1997

- Requirement to use a manifest for all industrial wastes
- Introduction of an electronic manifest system
- Extension of the companies to be given action order
- Rule for administrative subrogation for restoring to original state (Institutionalization of Waste Management Center)
- Introduction of the system of Industrial Waste Restoration Foundation

Revision in 1991

- Requirement to use a manifest for specially controlled industrial waste
- Relaxation of requirements to give action order

Trend of legal system concerning strengthening responsibilities of waste generating companies (2)

The major points of revisions on the Waste Management Law
(Prevention of illegal dumping and restoration to original state)

- Penalties -

Enforcement of Waste Management Law in 1970



Revision in 1976

- An imprisonment not exceeding 3 months or a fine not exceeding 200,000 yen

- An imprisonment not exceeding 1 year or a fine not exceeding 500,000 yen

Note: Different for oil waste and hazardous industrial wastes

Above: Penalties against violation on prohibition of dumping, etc

Below: Penalties against violation of action order

Revision in 2000

- An imprisonment not exceeding 5 years or a fine not exceeding 10 million yen or both (Aggravated punishment not exceeding 100 million yen for a corporate body) (Abolished division from municipal solid waste)

- An imprisonment not exceeding 5 years or a fine not exceeding 10 million yen or both

Revision in 1991

- An imprisonment not exceeding 6 months or a fine not exceeding 500,000 yen

- An imprisonment not exceeding 3 years or a fine not exceeding 3 million yen or both

Note: Different for specially controlled industrial wastes

- An imprisonment not exceeding 3 years or a fine not exceeding 10 million yen or both (Aggravated punishment not exceeding 100 million yen for a corporate body)

- An imprisonment not exceeding 3 years or a fine not exceeding 10 million yen or both

Revision in 1997

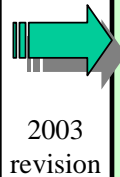
Trend of legal system concerning strengthening responsibilities of waste generating companies (3)

The major points of 2003 revision on the Waste Management Law

- Measures to cope with inappropriate treatments -

Major points in several revisions made by 2000

- Thorough accountability of waste generating companies
- Extension of the companies to be given action order
- Strengthening of penalties



1. Expansion of the rights of report collection and on-the-spot inspection (Establishment of the rights of report collection and on-the-spot inspection regarding things suspected of being wastes)
2. **Strengthening of penalties for illegal dumping (Establishment of attempted crime for illegal dumping, etc. *)**
 - ... Attempts of illegal dumping or illegal burning are punished.
 - ... The penalty for a corporate body that participated in illegal dumping of municipal solid wastes is raised to the a not exceeding 100 million yen, which is the penalty same for industrial wastes.
3. Clarification of the State's duty (It was stipulated as State's duty to adjust local municipal entities from a wide-area viewpoint and to dispatch its staff.)
4. Adjustment of the permission procedure for a waste management company, etc. (Requirement to cancel the permission to the party to which the conditions for disqualification became applicable. Addition of conditions for disqualification)
5. **Formulation of consignment standard that a company should follow when treating municipal solid wastes**
 - ... The consigned company violating the standard is added to the companies to be given action order.

* Punishment on the attempted illegal dumping during collection or transportation is supposed to be established by the 2004 revision.

Recent, typical cases of inappropriate treatment and illegal dumping (1)

Illegal dumping of industrial wastes at the border of Aomori and Iwate Prefectures

Outline: Discovered in May 2002 at the border of Aomori and Iwate Prefectures. The biggest domestic illegal dumping of industrial wastes.

The illegally dumped volume: About 820,000m³

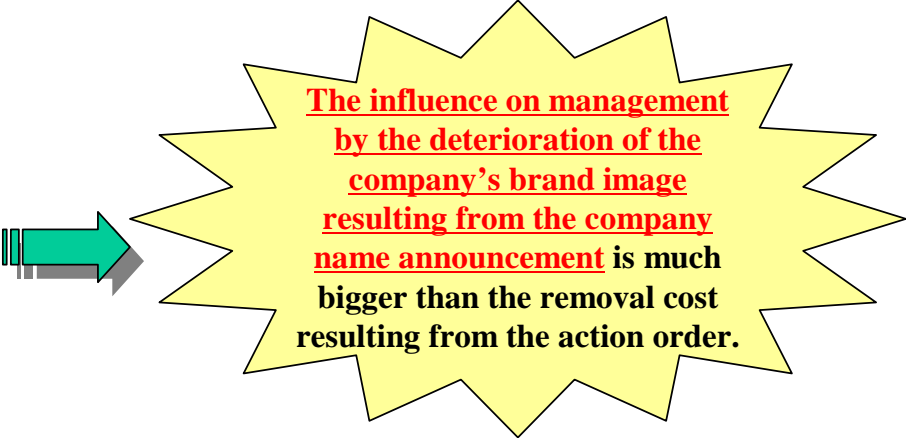
Related waste generating companies: **more than 10,000**

Measures against the waste generating companies for restoration to original states:

- Both Aomori and Iwate Prefectures made the policy to **collect reports from the waste generating companies and to give action order when legal violation was confirmed.**
- They have already given action order to remove illegally dumped wastes to several waste generating companies by **announcing company names.**

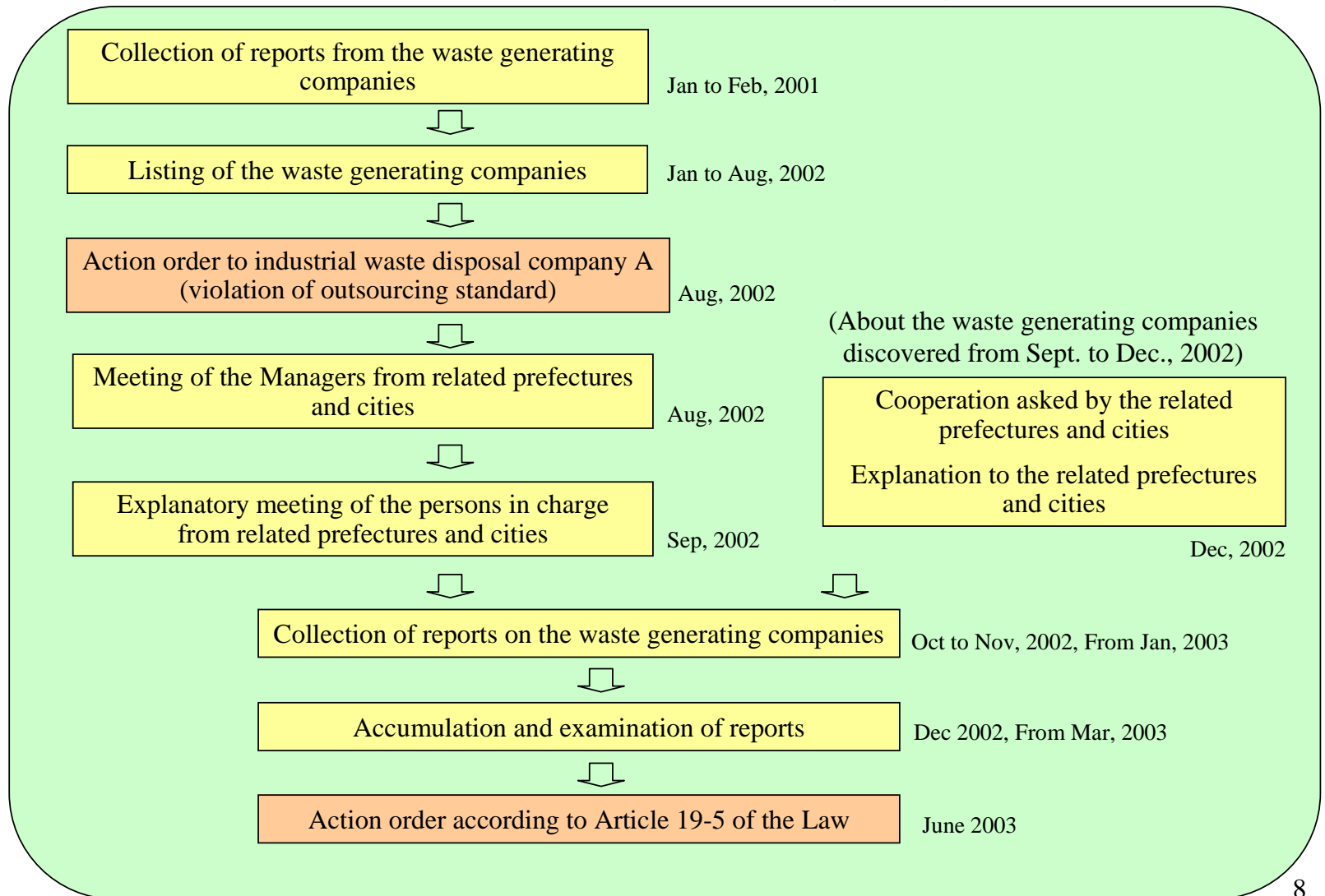


The scene of the illegal dumping at the border of Aomori and Iwate Prefectures



The influence on management by the deterioration of the company's brand image resulting from the company name announcement is much bigger than the removal cost resulting from the action order.

Flow of responsibility pursuit on the illegal dumping at the border of Aomori and Iwate Prefectures (outline)



Action order for the large-scale illegal dumping at the border of Aomori and Iwate Prefectures (extract)

Aomori Prefecture No. xxx

Iwate Prefecture No. xxx

(Address)

(Company Name)

According to the prescription in Article 19-5 of the Waste Disposal and Public Cleansing Law (Law No. 137 of 1970, hereinafter “the Law”), I order you to take the action described below by (date).

1. To remove the cinders as industrial wastes from xxxx, Mito-gun, Aomori or xxx, Ninohe-shi, Iwate (hereinafter “the illegal dumping site”) which is equal to the cinders as industrial wastes generated by burning xxx.xm³ (xx.x tons) done by (company name) as part of the industrial plastic wastes of total xxx m³ (total xxx tons) that you consigned (company name, address) for transportation and that you consigned (company name, address) for treatment from (date) to (date).

2. ... (omitted)

(Date)

Governor of Aomori Prefecture xxxxxxxx

Governor of Iwate Prefecture xxxxxxxx

(The rest omitted)

Recent, typical cases of inappropriate treatment and illegal dumping (2)

Illegal dumping of industrial wastes in Teshima Island of Kagawa Prefecture

[Outline of the case]

- Time: Hyogo Prefectural Police disclosed in 1990 (illegally dumped from 1978)
- Executant: An industrial waste disposal company (bankrupted)
- Dumped items: Shredder dust, etc.
- Illegally dumped volume: 510,000m³
- Movements after the disclosure:
 - In 1993, the residents sued the company, the companies that discharged the industrial wastes, and Kagawa Prefecture. The residents got overall victory at the end of 1996 at Takamatsu District Court. In June 2000, the Prefectural government and the residents reached the final agreement on the arbitration for pollution.
- At present, the treatment on the dumped industrial wastes have been progressing.



The dumping site just after the disclosure (November 1990)

From Kagawa Prefecture's website

(<http://www.pref.kagawa.jp/haitai/teshima/teshi-1-1.htm>)

Recent, typical cases of inappropriate treatment and illegal dumping

(3)

Big scale illegal dumping in the forests of Gifu City

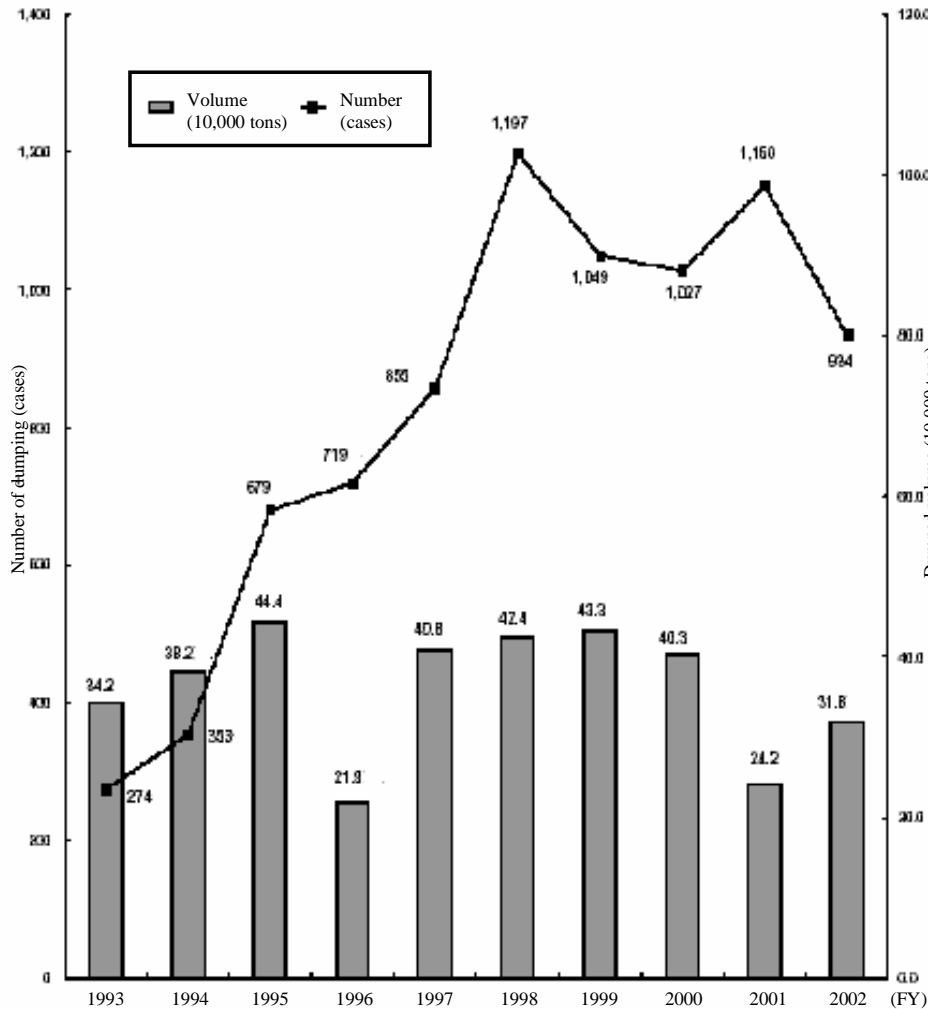
--- Large scale illegal dumping which was discovered recently, of which dumped volume was more than that of Teshima.

[Outline of the case]

- Time: Disclosed in March 2004
- Executant: An intermediate treatment company for industrial wastes in Gifu City
- Dumped items: Plastic wastes, etc.
- Illegally dumped volume: (At least) About 520,000m³
- Place: Dumped in the forests of Gifu City
- Number of related waste generating companies: More than 140

Situations of inappropriate treatments and illegal dumping (1)

- Change in the volume and number of illegal dumping -



Illegally dumped volume

- Until 2000, changed around 400,000 tons
- In 2001, drastically decreased to about 240,000 tons
- In 2002, about 320,000 tons

Number of illegal dumpings

- Tends to decrease after 1998 (1197 cases)
- In 2001, increased again to 1150 cases
- In 2002, 934 cases

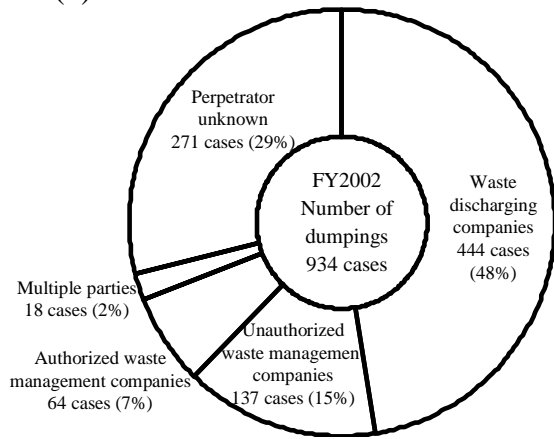
(Source) Information of press release by the Ministry of the Environment on December 22, 2003.

[Situations of illegal dumping of industrial wastes \(2003\)](#)

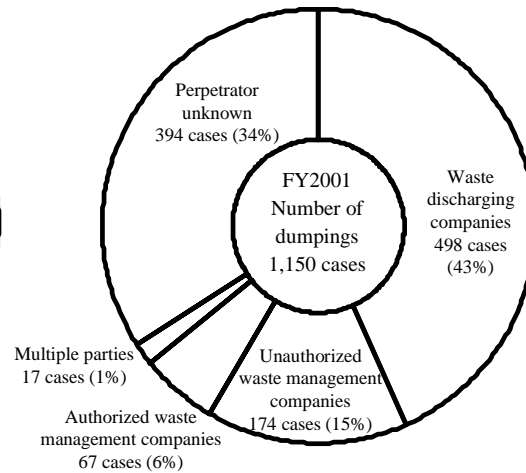
Situations of inappropriate treatments and illegal dumping (2)

- Analysis on the perpetrators -

(1) Number



FY2002



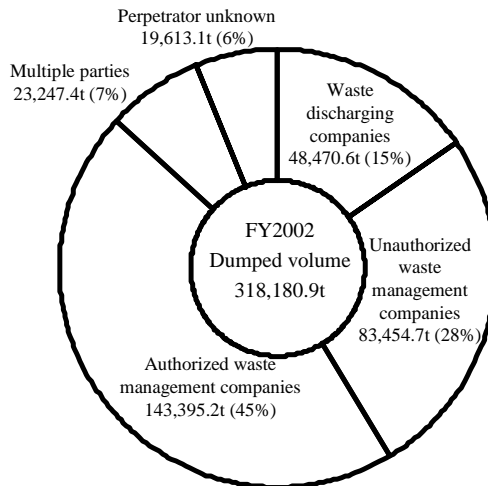
Previous Year (FY2001)

Perpetrators of illegal dumping

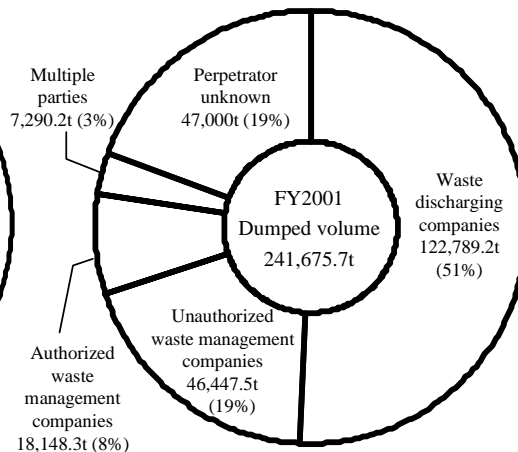
- **By the numbers, 40 to 50% was by waste generating companies,** and slightly more than 20% by disposal companies (authorized and unauthorized companies).

- **By volume, in 2001, about 50% was by waste generating companies,** about 20% by unauthorized disposal companies, and in 2002, 45% by authorized disposal companies.

(2) Volume



FY2002



Previous Year (FY2001)

(Source) Information of press release by the Ministry of the Environment on December 22, 2003.

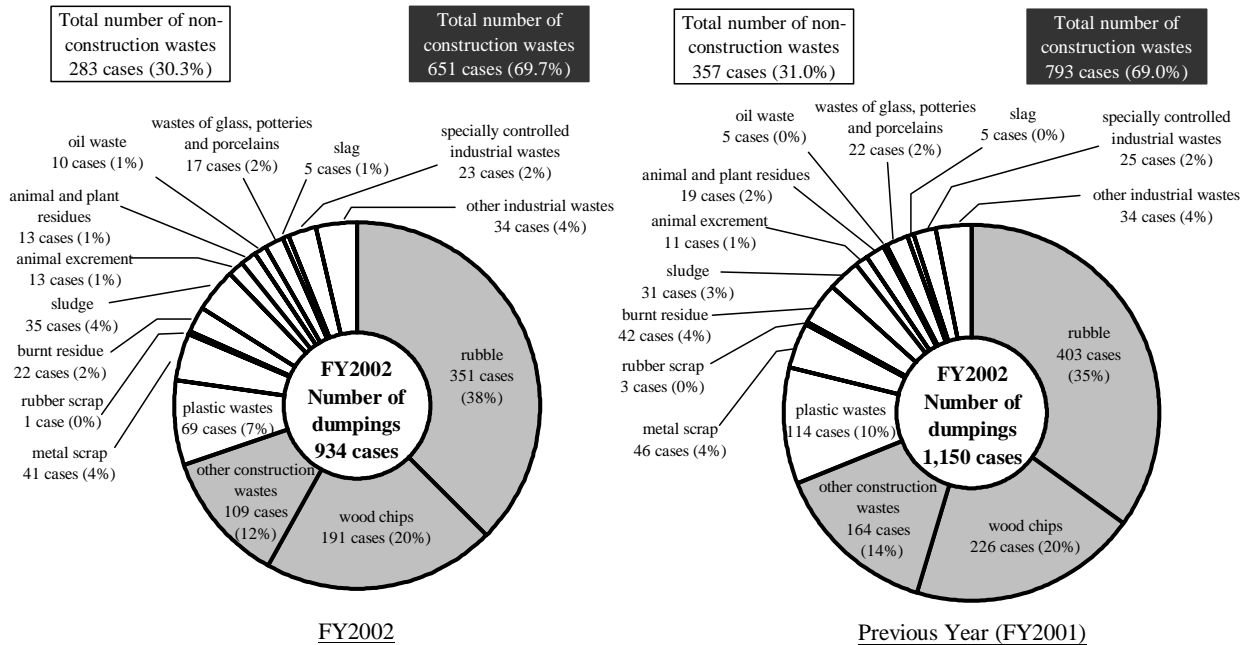
[Situations of illegal dumping of industrial wastes \(2003\)](#)

Situations of inappropriate treatments and illegal dumping (3)

- Contents of illegally dumped wastes -

5. Contents of illegally dumped wastes

(1) Number of dumpings



Contents of illegally dumped wastes

- About 70% of illegal dumping is construction waste and is predominant.
- Debris: 35%
- Wood chips: 20%
- Others: 10 – 15%
- Plastic wastes rank second and account for about 7 to 10%.
- Others is below 5%.

(Source) Information of press release by the Ministry of the Environment on December 22, 2003.

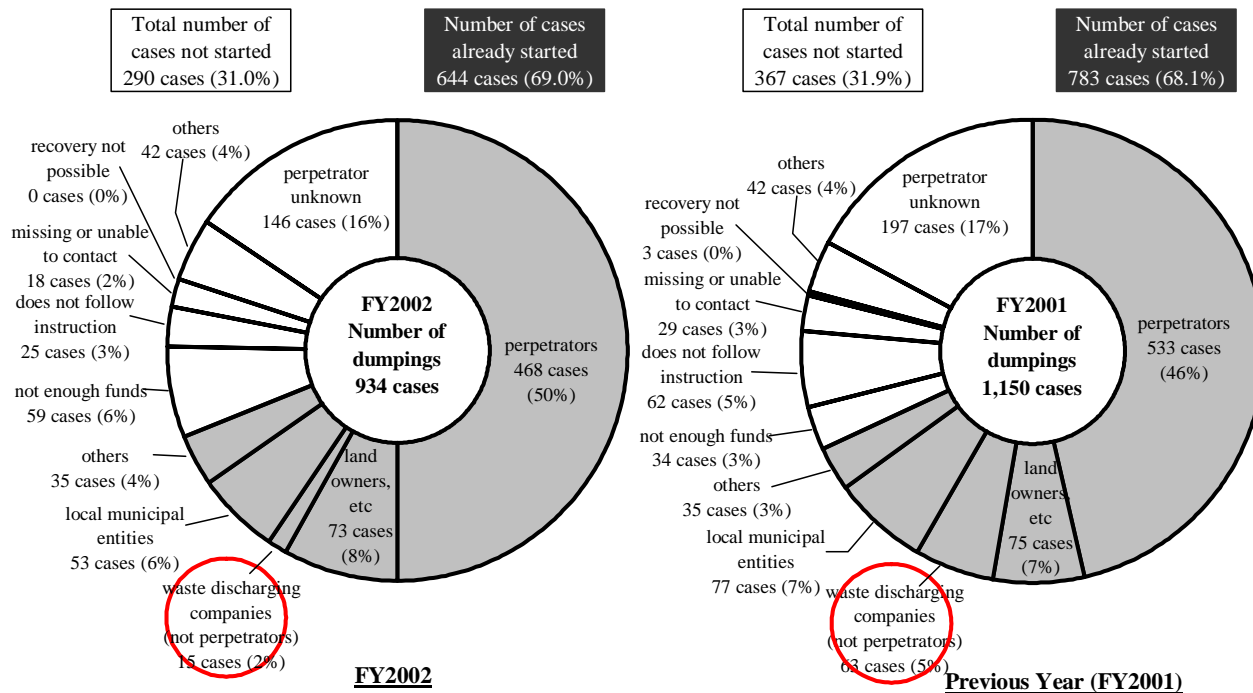
[Situations of illegal dumping of industrial wastes \(2003\)](#)

Situations of inappropriate treatments and illegal dumping (4)

- Situation of restoration to original states -

6. Situation of restoration to original states

(1) Number of illegal dumpings



Situation of restoration to original states

The ratio of the cases that restorations to original states have started is about 70% of the whole number of inappropriate treatments or illegal dumpings.

As its practitioner, although the rate of perpetrators themselves is highest and is about 50%, the restorations of 2 to 5% of all cases are done by waste generating companies who are not the perpetrators of dumping.

(Source) Information of press release by the Ministry of the Environment on December 22, 2003.

[Situations of illegal dumping of industrial wastes \(2003\)](#)

The State's measures to cope with illegal dumping

- Action Plan for Elimination of Illegal Dumping (1) -

Action Plan for Elimination of Illegal Dumping

June 15, 2004

Ministry of the Environment

1. Present status of illegal dumping

Number of cases and volume of illegal dumping

- The number of case of illegal dumping of industrial wastes that are newly discovered every year has recently stabilized at **around 400,000 tons (around 1000 cases)**.
- Total volume of illegally dumped waste across the country remaining at the beginning of FY2003 was about 10,960,000 tons (about 2500 cases).

Influence of illegal dumping

In addition to economic loss due to the cost of restoration to original states (Teshima of Kagawa Prefecture: total 44.7 billion yen, Border of Aomori and Iwate Prefectures: total 65.5billion yen), the social influence caused by illegal dumping is quite significant; significant enough to destroy the surrounding communities, not to mention influence the environment such as water contamination and soil pollution.

2. Purpose of the Action Plan

- **Proactive measures are essential** in consideration of various influences that illegal dumping causes.
- Therefore, in addition to strengthening already existing penalties, **comprehensive measures** (Action Plan) taken at each level following the flow of waste treatment are necessary.
- By these measures, it is aimed to **"reduce big cases (over 5000 tons) to zero within five years by early implementation" that is an immediate target of the actions against illegal dumping.**

3. Keys of the Action Plan (3 viewpoints)

Awareness-raising in the local communities

Strengthening the measures against scattering garbage in the neighborhood (application of Broken Windows' Theory)

- Formulation of separated collection guideline, promotion of reduction of waste in daily life and at the time of removal, etc.

Strengthening of waste treatment system

Securing receivers, improvement of transparency of the waste treatment system

- Sticker sticking to vehicles, thorough implementation of administrative punishments, adjustment of transboundary movement of wastes.
- Reinforcement of government assistance aimed at efficient improvement of waste treatment facilities, strengthening of safety policy for disposal sites.

Training of personnel who support the system

Nurturing of excellent industrial waste disposal companies and administrative system development

- Formulation of evaluation standard and nurturing of excellent industrial waste disposal companies by tax incentives, etc.
- Human resource development by the State and local governments by dispatching instructors and establishing industrial waste academy, etc.
- Fulfillment and strengthening of local environmental protection inspector's office, strengthening environment watch activity (environmental patrol) through establishment of illegal dumping hot-line, etc. and system to be ready on site

* Regarding this Action Plan, it should be promoted by getting the understanding of related ministries and agencies in the future. In addition, when implementing this plan, "Liaison Network of Government Entities for Waste Management to Secure Landfill Site, etc." should also be utilized.

The State's measures to cope with illegal dumping
 - Action Plan for the Elimination of Illegal Dumping (2) -

Action Plan for Elimination of Illegal Dumping (June, 2004 Ministry of the Environment)

- A awareness-raising in the local communities: Strengthening the measures against scattering garbage in the neighborhood (application of Broken Windows' Theory)
- Strengthening of waste treatment system: Securing receivers, improvement of transparency of waste treatment system
- Training of personnel who support the system: Nurturing of excellent industrial waste disposal companies and administrative system development

	When discharging	Appropriate treatment		Illegal dumping
		Collection and transportation	Treatment	
Measures against scattering garbage in the neighborhood (Municipal solid waste)	<p>Reduction of household garbage</p> <ul style="list-style-type: none"> -Promotion of waste reduction in daily life and at the time when discharging a lot (removal, event, etc.) (awareness-raising activities such as zero garbage campaign, etc., strengthening the project of eco-community, etc.) - Thorough implementation of separated collection by formulating guidelines, etc. <p>Strengthening of home appliance recycling system</p>		<p>Securing receivers</p> <ul style="list-style-type: none"> - Improvement of waste treatment facilities with government assistance - Financially (Reinforcement of government assistance aiming at efficient improvement of waste treatment facilities) - Technically (Measures against accidents, risk management of abolished disposal sites) - Rationalization of regulations 	<p>Measures against scattering garbage</p> <ul style="list-style-type: none"> - Strengthening of local beautification and cleaning activities in cooperation with local residence, NGO, etc.
Measures against a large quantity of illegal dumping (Industrial waste)	<p>Improvement of transparency through knowing the flow of wastes, pursuit of responsibility of the caused party, thorough implementation of administrative penalties</p> <ul style="list-style-type: none"> - Fulfillment of electronic manifest using IT technology - Requirement of sticking stickers on the vehicles transporting industrial waste - Simultaneous nationwide inspection that the State and local authorities cooperate - Adjustment of transboundary movements of waste 		<ul style="list-style-type: none"> -Knowing remaining capacity of final landfill sites - Strengthening regulations on small disposal sites <p>Nurturing of excellent industrial waste disposal companies and utilization by waste generating companies</p> <ul style="list-style-type: none"> - Formulation of evaluation standard and differentiation by tax incentive, etc. - Elimination of organized crime groups 	<p>Strengthening penalties</p> <ul style="list-style-type: none"> -Inappropriate keeping of sulfate pitch, etc. - Establishment of intentional crimes - Thorough grasp of the situation of illegal dumping throughout the country
	<p>Administrative system development</p> <ul style="list-style-type: none"> -Human resource development by the State and local governments (Establishment of instructor dispatching system and industrial waste academy, improvement of information provision to local governments and strengthening of advice system) - Strengthening environment watch activity (environmental patrol) and system to be ready at site (Strengthening cooperation with local municipal entities, improvement and strengthening on local environmental protection inspector's office, establishment of illegal dumping hot-line) 			

The State's measures to cope with illegal dumping

- About the nurturing of excellent companies -

Outline of the "Visions for the Problems Regarding Wastes and Recycling" (Recommendation by the Central Environment Council on January 28, 2004) and the situation of examination at the Ministry of the Environment are as follows:

5. Nurturing of excellent industrial waste disposal companies

- The State should set the evaluation standard to judge quality and give incentives for the disposal industry's improvement so that the waste generating companies can select excellent companies by their own judgment.
- It is hoped that the evaluation standard set by the State and the information on the disposal companies based on the standard will be positively used in various private sector activities in the market.

The Ministry of the Environment is implementing a project to improve the industrial wastes disposal industry from 2003 and especially, giving priority to the examination on the evaluation standard to the judge quality of disposal companies and the preferential treatment of the disposal companies that meet the standard.

It is planned to take the measures, such as the following, based on the conclusion of the above by the revision of ministerial ordinance within FY2004.

- To set up the evaluation standard for the quality judgment for disposal companies such as whether disclosing information on the content of business, capacity and achievements of treatment facility, financial statements, operational control framework, employee training, etc, whether or not having received administrative punishments for a certain period of time, and whether taking positive measures for environmental protection.
- To permit the companies meeting the said standard to omit a part of the documents as a preferential treatment when applying for the extension of permission.

Part 2: Examples of advanced waste management

- Acknowledgement of the importance of waste problems by company managements (Examples 1 – 3)
- Company-wide approach without leaving the matter to the person in charge (Examples 4 – 6)
- Management and cooperation of consigned waste management companies (Examples 7 – 9)
- Enlightenment of employees by company training, etc. (Examples 10 – 12)
- Approach on the waste for which the responsibility of treatment tends to be vague such as valuable resources (Examples 13, 14)

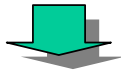
Example 1: Awareness-raising in manufacturing company A

Company A made a document to determine that its management is positively concerned about environmental problems. It also states the viewpoint on appropriate treatment and recycling of industrial wastes.

Outline of the **Commitment** (determination)

1. As a corporate citizen
2. Plan of new business
3. Research and development
4. Product design
5. Management of manufacturing process and offices
6. Distribution, sales, marketing, and service
7. Recycling of used products
8. Information disclosure and communication
9. Risk management, safety and hygiene management

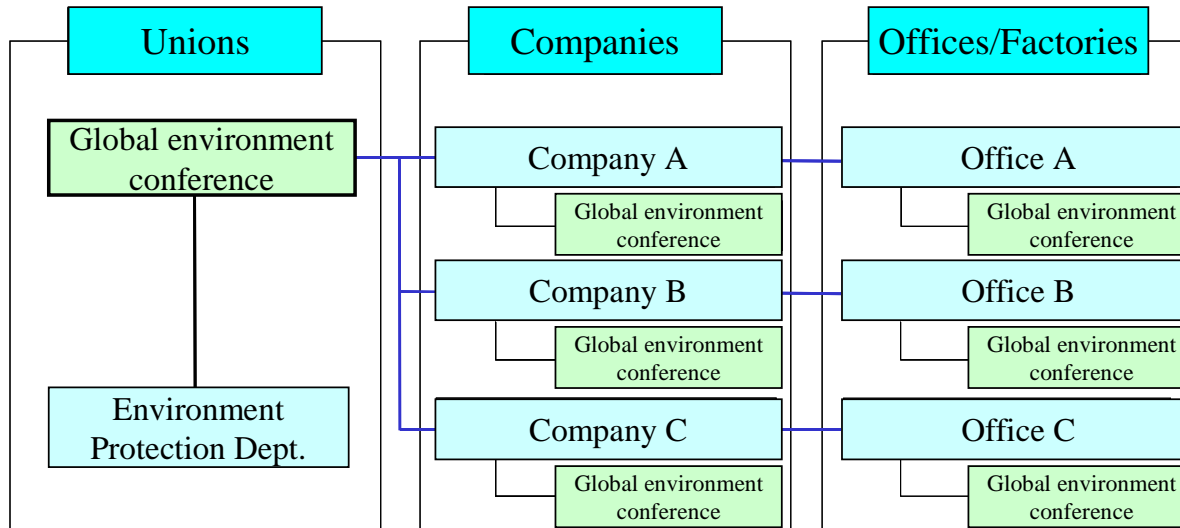
The viewpoint on appropriate treatment and recycling of industrial wastes is stated in “5. Management of manufacturing process and offices”.



For a company, not only compliance but the contribution to construct a recycling-oriented society is an important duty. Company management therefore needs to reacknowledge wastes from the viewpoint of company management to fulfill the company’s social responsibility (CSR).

Example 2: Environment protection system in manufacturing company B

Company B established global environment conferences in the headquarters, Business Department, branch offices and factory, respectively. Regarding waste problems, each “Global Environment Conference” made targets for (1) zero emission (2) reduction of total waste discharging volume, and set up action plans and details for practice for each level.



When reacknowledging wastes from the viewpoint of company management, it is necessary to construct a company-wide waste management system for each level of the company to fulfill its role.

Example 3: Formulation of Environment Plan by manufacturing company C

Company C sequentially expands and strengthens its Environment Plan to show its target for environmental effort. The Environment Plan also describes about “wastes”.

- Reduction and recycling

- Volume to consign treatment, volume to recycle, total discharging volume, recycling rate
- Achievement management (for whole wastes whether it is a waste or valuable resource)

- Reduction of cost for outsourcing

- Reduce the volume, not the unit price for treatment
- Conversion from disposal to recycling

- Measures against hazardous wastes

- Reduction and appropriate management on the harmful substance used in the process

- Compliance

- Management by ISO14001 and IT tools



It is necessary to make a plan for waste management and to show a company-wide action plan regarding waste treatment and recycling.

Example 4: Daily job management in distribution company D

Company D knows the situation of daily waste discharging of each office by making detailed format.

Work Report

Shop No.: _____ Shop Name: _____ Company Name: _____ Resident's name: _____

Year _____ Month _____ Date _____ Weather _____ Reporting time (AM/PM) _____

1. Resident's work and discharged volume

Classification	Item	Number of bags	Weight	Situation of separation	Number of carrying out of the shop	Cleared place	Cleared with water	Disinfections
Burnable	paper waste	bags	kg	good/average/bad		Room for corrugated		
	wood chips	bags	kg	good/average/bad		Room for kitchen		
	kitchen garbage	bags	kg	good/average/bad		garbage		
	plastic wastes that cannot be separated	bags	kg	good/average/bad				
Nonburnable	plastic wastes of packaging	bags	kg	good/average/bad		Equipment room		
	other plastic wastes	bags	kg	good/average/bad		Room for foam		
Recyclable	corrugated cardboard	bags	kg	good/average/bad		polystyrene		
	recyclable paper	bags	kg	good/average/bad		Room for empty bottles		
	foam polystyrene	bags	kg	good/average/bad		Bony parts of fish		
	empty cans	bags	kg	good/average/bad				
	empty bottles	bags	kg	good/average/bad		Room for goods		
	waste oil (food oil)	cans	kg	good/average/bad				
	bony parts of fish	bags	kg	good/average/bad				
	metal goods	bags	kg	good/average/bad		Truck yard		
	milk carton	bags	kg	good/average/bad				
	plastic bottle	bags	kg	good/average/bad		Passage		
Big garbage	container made of styrofoam	bags	kg	good/average/bad				
	mixed goods	bags	kg	good/average/bad				
	wooden goods	bags	kg	good/average/bad				

2. Station of resident

name	

3. Message for the site manager (Things to be improved regarding the situation of separation, etc.)

Site manager confirmed

[Circulation] (A) The person in charge -> Headquarters' Management Dept.
 (B) The person in charge -> Headquarters' Management Dept. -> The person in charge

- The "number of bags or garbage" of each item should be written.
- The "weight" of each item should be written.
- The "situation of separation" of garbage should be confirmed.
- Places in charge that are done as resident's work should be confirmed. (Check the one which is applicable.)
- The "number of carrying out" wastes should be confirmed.
- The person in charge on the day and the time stationed should be written. (Put the line for the period of time the person was stationed.)
- Opinions and requests for the Headquarters' Management Department should be written.



It is necessary to know the situation of the whole company by managing daily condition of waste discharging and separation at each office.

Example 5: Waste flow management in manufacturing company E

Company E knows the situation of monthly discharging volume and consigned treatment of waste at each office and factory by making a detailed format.

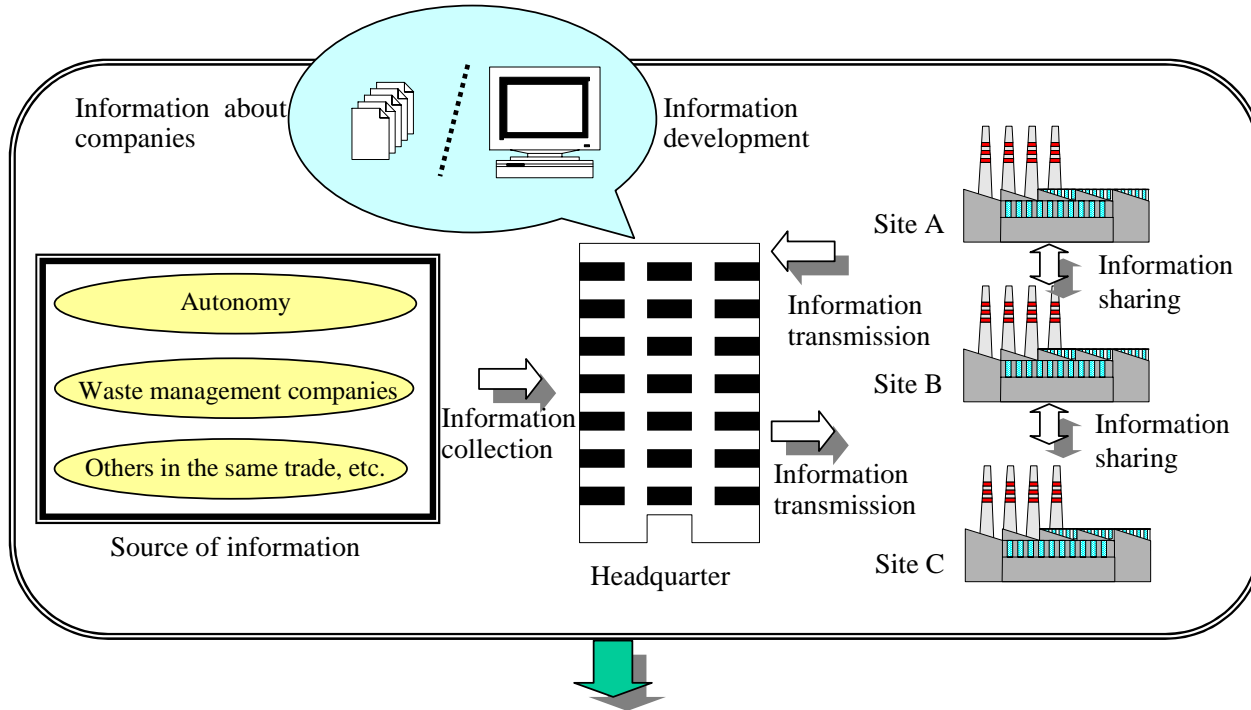
Classification in the Waste Management Law	Type of waste discharged from the factory concerned	(1) Total discharged volume (t)	(4) Collection/transportation			(5) Recycling outside the company				(6) Intermediate treatment outside the company				(8) Final landfill outside the		
			Consigned volume (t)	Company name	Cost (10000 yen)	Volume for recycling (t)	Method of recycling	Company name	Cost (10000 yen)	Consigned volume (t)	Method of treatment	Company name	Cost (10000 yen)	Consigned volume (t)	Company name	Cost (10000 yen)
sludge	sludge that oil and water was removed			A				a				d			Landfill A	
				B				b				e			Landfill B	
				C				c							Landfill C	
	total															
	extra sludge															
	:															
	:															
	total															
	sludge from cleaning															
	:															
total																
...																
Sub-total																



It is necessary to know not only about the situation of waste discharging but also about information on volume, cost, consigned company, etc., regarding treatment and recycling of each waste discharging place (office, factory, shop, etc).

Example 6: Information sharing system in manufacturing company F

Company F is sharing information (reciprocal transmission) between its head office and a site or between the sites by constructing its own information system.



It is important to share in the whole company not only about information on waste discharging, treatment, and recycling of each office/site but also about information on the consigned company for treatment and recycling (company name, business permission, handling items, situation of its measures for promoting recycling, etc).

Example7: Management on the consigned waste management company by manufacturing company G

Company G is promoting a systematic approach through making manuals and training its person(s) in charge for selecting and signing contracts with consigned waste management companies.

FY2000

Formulation of manual for consigning waste disposal



- Selection of the company to consign
- Clarification of selection standard
- Contract
 - Basically signing with multiple companies
 - Single contract before signing new contract
- Manifest
 - Issuing manifest also to the company handling valuable resource
 - Introduction of electronic manifest
- Site inspection
 - Time of inspection, sharing the inspection result

2003 First half

Drill on the site inspection of consigned company

Purpose:

- Leveling and raising levels of inspectors
- Improving understanding on manual and check sheet

Approval registration of site inspectors (inspectors on waste disposal companies)

2003 Second half

Real operation of allocated duties for site inspection

Purpose:

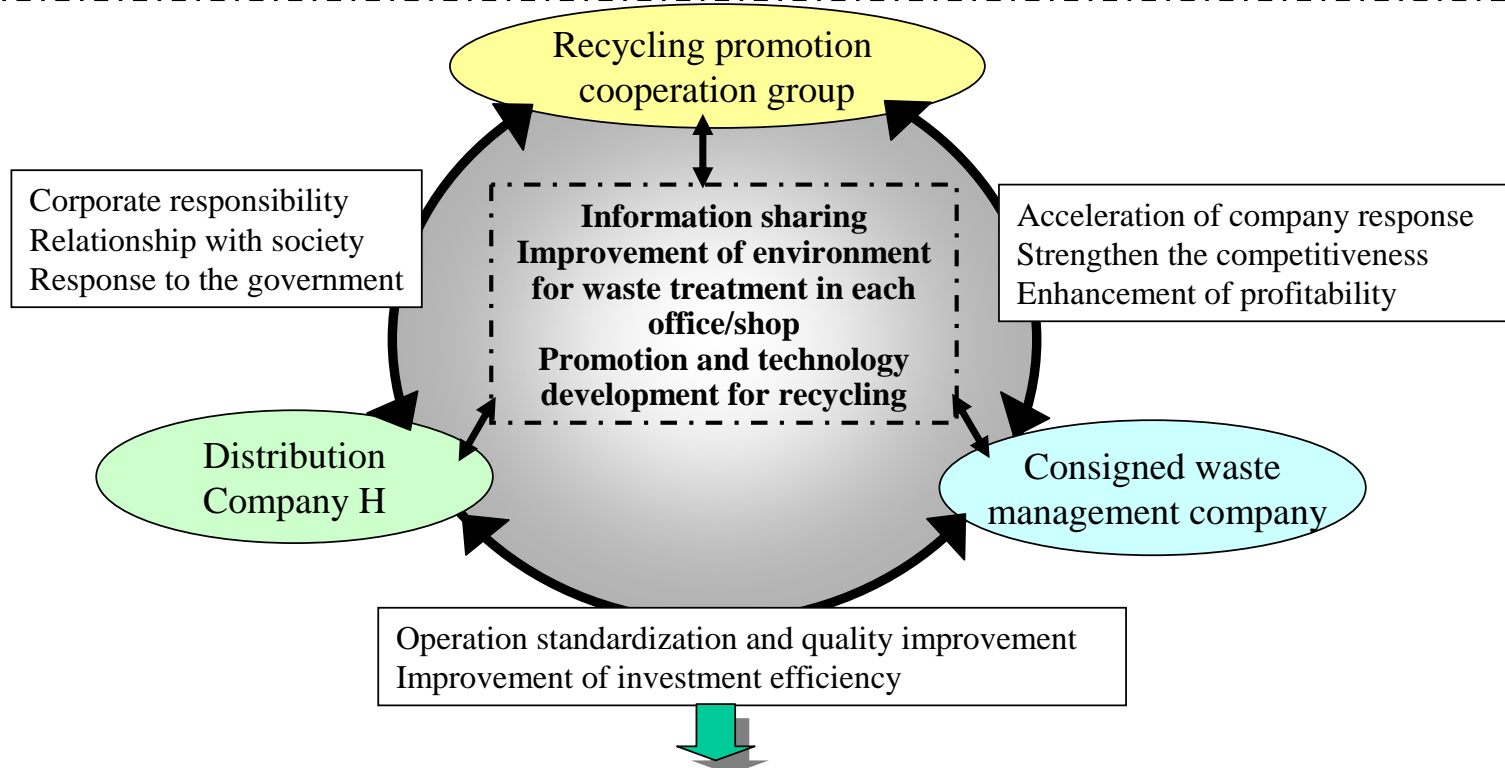
- Downsizing of works for site inspection and confirmation in each district
- Leveling of burden by each district, minimization of frequencies (=> cost reduction)



It is necessary for a waste generating company to take a proactive and organized approach without leaving the matter of waste treatment and recycling wholly to the consigned company.

Example 8: Cooperation with waste management company by distribution company H

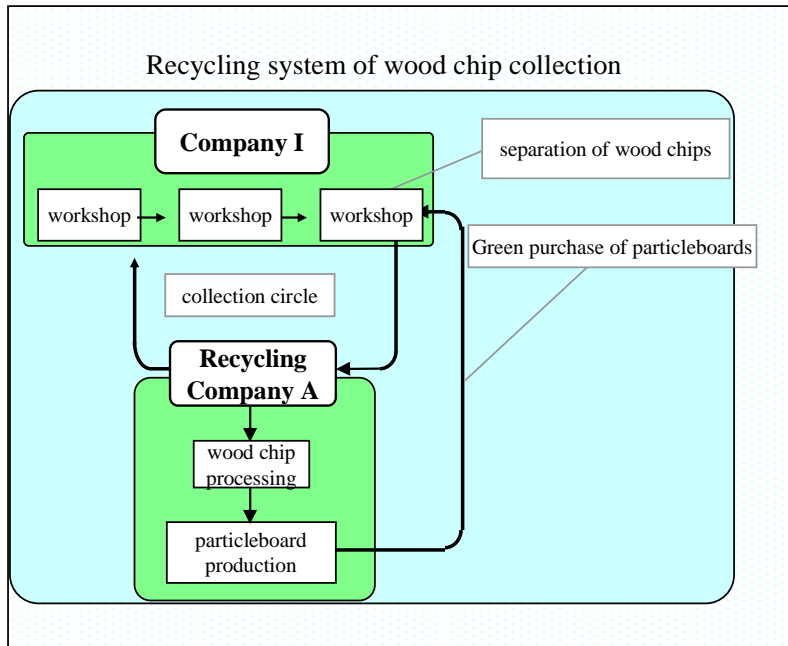
Company H, in cooperation with the consigned waste management company, set up a recycling promotion cooperation group and is trying to improve waste management within the company by getting the know-how from the consigned company.



It is important to try to improve the quality of the company's waste management more efficiently and effectively through the information exchange with waste management companies.

Example 9: Cooperation with recycling company by construction company I

Company I is trying to cooperate with a recycling company by signing a contract to give priority to purchase the products recycled from the waste of Company I.



Separation of wood chips



Taking out



Effects

- Cost reduction
- Achievement of total material recycling
- Reduction of environmental burden by the decrease of CO₂ emission
- 100% recycling ratio

It is important to facilitate waste treatment and recycling by participating in the recycling system for the company's wastes in cooperation with the recycling company.

Example 10: Company training in manufacturing company J

Company J is trying to strengthen the waste management system by using company-wide IT tools together with developing its company rules and giving thorough education about related laws to the employees.

- Development and thorough implementation of the company rules

- 1) Formulation of “Waste Management Rules”
- 2) Operation of the environment management system of ISO14001

- Thorough education on related laws

- 1) Annual explanation meeting at production site and related companies
- 2) Textbooks for regulations and enlightenment tools (cooperation with legal department)

- Utilization of company-wide IT tool

- 1) Management system for wastes, etc.
- 2) Information database on the consigned companies
- 3) Database on examples of waste reduction and recycling

Content of “Waste Management Rules”

- To clarify responsibilities of office managers and the persons in charge of wastes
- To familiarize employees about legal matters regarding consignment of waste disposal
- To formulate company rules for site inspections and confirmation of consigned companies
- To familiarize employees about operational procedure of the manifest
- To develop rules on waste management etc.

Effects

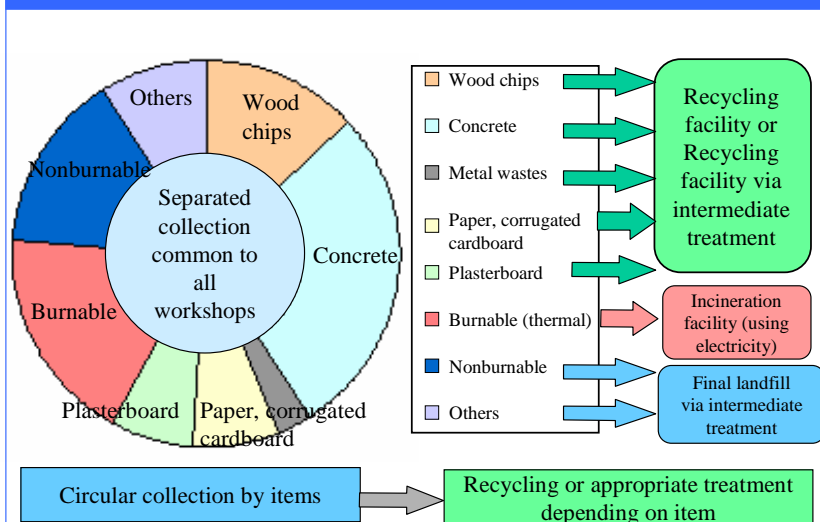
- Efficient waste management such as an automatic warning on uncollected manifest, etc.
- Sharing of information throughout the company on waste management companies etc.

It is important to appropriately educate employees and to construct an efficient system for information sharing aiming at each employee’s awareness-raising and promotion of effort.

Example 11: Company rule in construction company K

Aiming at 3R promotion, Company K is familiarizing its employees, including workers at the site, on how each item of wastes will be treated/recycled and on which company they will be handed over to.

Rules for the separation of construction wastes in the collection circle of Company K



Separation at workshops and destinations of wastes

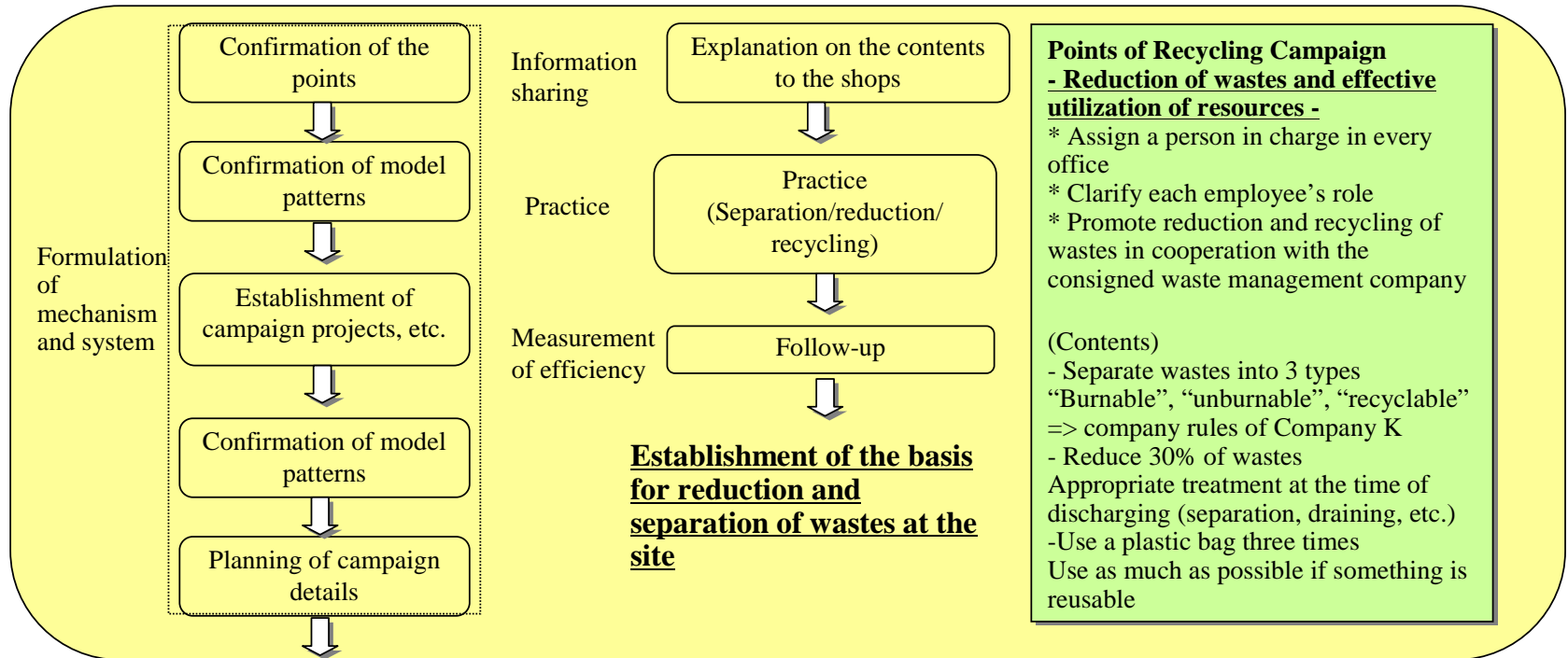
	Wood chips	Recycling company A
	Concrete	Recycling facility B
	Metal wastes	Scrap company C
	Corrugated cardboard	Papermaking company D
	Plasterboard	Recycling company E
	Rock wool	Recycling company F
	Electric wire scrap	Recycling facility G
	Polyvinyl chloride tubes	Recycling facility H
	Empty cans	Beverage maker
	Foam polystyrene	Recycling facility I
	Wastes mixed with nonburnables	Specified industrial waste
	Burnable (mixture is acceptable)	Waste management company J
	Kitchen garbage and ash	Municipal solid waste



Aiming at 3R promotion, it is necessary to improve each employee's understanding by clarifying the company rules about separated waste discharging.

Example 12: Recycling campaign in distribution company L

By practicing recycling campaigns throughout the company, Company L is trying to thoroughly implement company procedure on separation and decrease of wastes together with promoting raising the awareness of all employees.



↓

For promoting 3R, it is necessary to let all employees acknowledge that the separation and decrease of the wastes at site lead to the reduction of loss and further the merit of the company in addition to making them practice this.

Example 13: Contract of manufacturing company M

By basic trade contracts with contractors, manufacturing company M is managing also the buyer of valuable resources so that the resources are appropriately treated.

Basic Trade Contract with Contractor

We confirm our agreement on the trade of **Article xxx (valuable resource)** as follows:

..... (omitted)

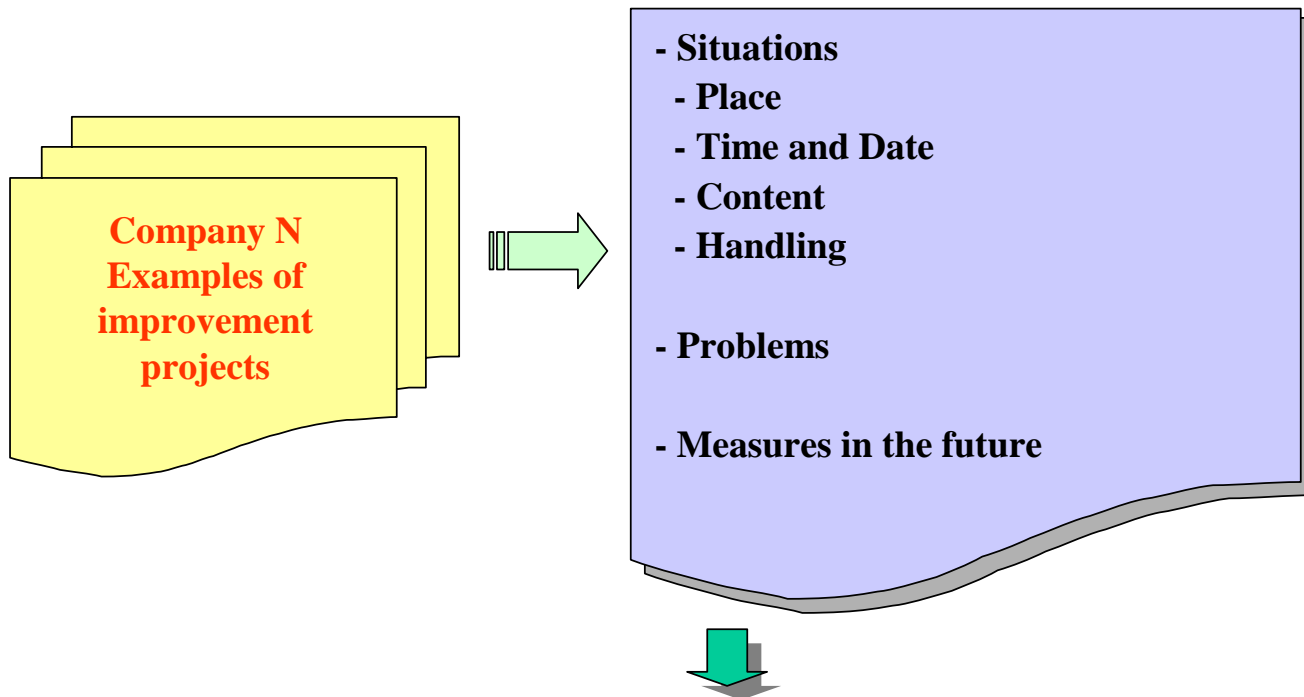
- After discussing with B (Recycling company: the buyer of valuable resource), Company M can visit B's factory, working places, offices, etc. to inspect the conditions of operation, and when necessary, request improvements.



It is necessary to confirm that appropriate treatment and recycling is done for all the wastes discharged from the company.

Example 14: Examples of improvement projects in manufacturing company N

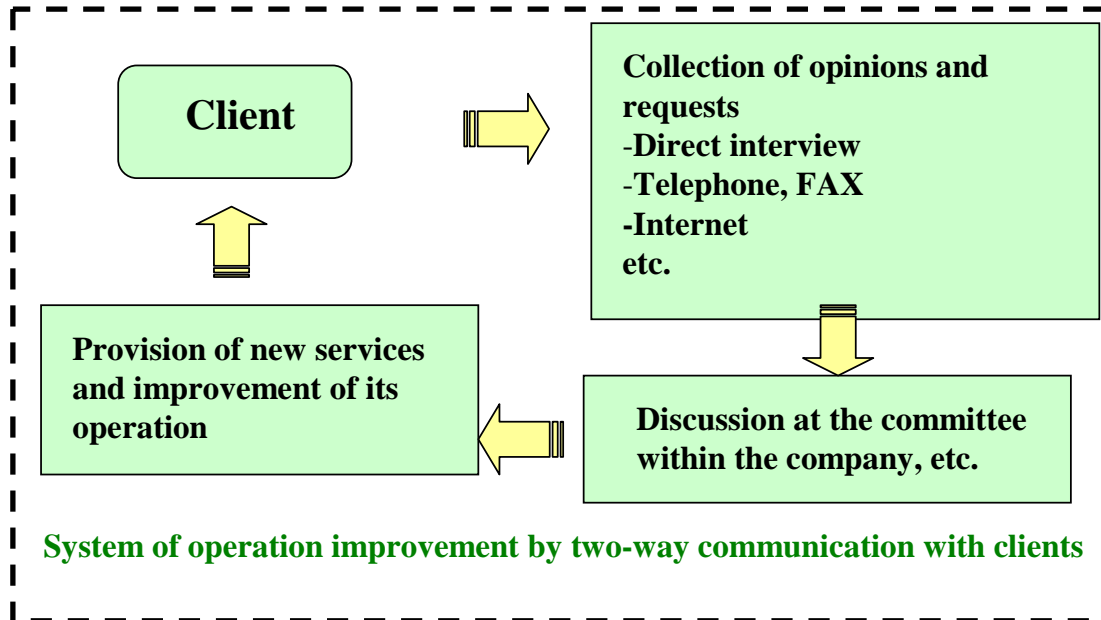
Company N has made data on examples of its own improvement projects for waste treatment and has familiarized its management and each employee with improvements.



It is important to improve the handling ability on waste treatment and recycling by collecting and analyzing improvement projects for waste treatment and letting each level of employee to acknowledge them.

Example 15: Two-way communication with clients by electric power company O

Company O is trying two-way communication with its clients by a method to collect clients' opinions and requests by various ways, discuss them at the review committee formed within the company, provide new services and improve its operation, and again collect clients' opinions and requests.



System of operation improvement by two-way communication with clients

In addition, for improving two-way communication, "Environment Action Report" and information disclosure by website are promoted.

<Environment Action Report>
Introduces results and future targets of the measures in each phase of "environment", "economy", and "society"
=> Introduces communication in the "society"



It is important to collect opinions and requests for the company's operation from the related parties outside the company, to disclose the information on which the result of the collected opinions/requests are reflected (content of operation improvement), and to try to smoothen the two-way communication with the related parties.

Example 16: Judicial opinions concerning industrial wastes

Whether or not something falls under the category of waste is judged comprehensively from its shape, its handling conditions, etc.

A precedent on “bean curd refuse” (March 10, 1999 judgment by Supreme Court)

- Company A was paid and consigned to treat “bean curd refuse” from a bean curd producer and was producing feedstuff and manure by drying the refuse.
- However most of the products were not sold due to its low quality, and they were either collected by a certain manure dealer free of charge or further consigned to a waste disposal company by paying money.
- Company A had no permission for business of industrial waste treatment for Kyoto, Hyogo, and Okayama Prefectures where the companies that collect “bean curd refuse” were located, and therefore was charged for unauthorized business under the Waste Management Law.

<Judgment> -- Guilty --

- When judging whether or not something falls under the category of industrial waste, “it is appropriate to decide it by considering its property, condition of discharging, ordinary form of handling, whether it is valuable or not, and the intention of the businessperson comprehensively”.
- At the time, the bean curd producer was either delivering most of the “bean curd refuse” free of charge to stock farmers or entrusting its treatment to waste disposal companies by paying money.
- Company A was paid money for the “bean curd refuse” that the company was collecting, transporting and treating, and therefore it is appropriate to judge that it falls under the category of “industrial waste”.

A precedent on “wood chips” (January 26, 2004 judgment by Mito District Court)

- Company B was collecting wood discharged from constructors and wreckers and was producing wood chips from almost all of them.
- At the beginning, Company B bought wood, produced and sold wood chips. Later, due to the price drop of chip products, some wood collections were done free of charge and some were even paid for the treatment.
- Company B was restricting the collection only to the wood complying with the standard as chip material.
- Company B did not have permission stipulated in the Waste Management Law and was charged for unauthorized business.

<Judgment> -- Not Guilty --

- The wood of the case was a part of “wood waste” which is industrial waste at the time it was discharged by constructors and wreckers.
- However, the wood waste generating company was practicing the selection work, which conforms with the purpose of the Law for Promotion of Effective Utilization of Resources and the Construction Material Recycling Law, and therefore it is judged that they became valuable at the time of delivery to Company B.
- Therefore, the wood of the case is not judged as “wood waste” as industrial waste.

Whether it is waste or not is judged by the conditions of handling by the discharging company and by the company receiving the discharged matter. ->>

Point: It is essential for the discharging company to thoroughly manage the company’s waste appropriately.