Electronic Manifest System for Industrial Waste in Japan

October, 2018

Japan Industrial Waste Information Center
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The Aim of the Manifest System

The manifest system aims to provide generators of industrial waste with further understanding of the steps involved with commissioned waste processing collection, transportation, and disposal agents and to prevent illegal dumping as the proper disposal of waste.

<table>
<thead>
<tr>
<th>Waste</th>
<th>Municipal waste</th>
<th>Industrial waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposal type</td>
<td>Self disposal</td>
<td>Not subject</td>
</tr>
<tr>
<td></td>
<td>Commissioned disposal</td>
<td>Not subject</td>
</tr>
</tbody>
</table>

E-manifest

Paper manifest
# History of the Manifest System

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>Manifest system was started as trial. The form was only paper type Manifest.</td>
</tr>
<tr>
<td>1993</td>
<td>The legal manifest system was started for only hazardous industrial waste.</td>
</tr>
<tr>
<td>1998</td>
<td>The legal manifest system was introduced for all kinds of industrial waste. The Electronic Manifest (e-manifest) system was introduced. - Generators have to use either paper manifest or e-manifest. - Japan Industrial Waste Information Center (JW Center) was designated as Information Processing Center (IPC) by the Minister of Environment to operate the information system of e-manifest.</td>
</tr>
<tr>
<td>2001</td>
<td>The report of the final disposal confirmation was obligated using the manifest.</td>
</tr>
<tr>
<td>2005</td>
<td>The penal regulations corresponding to the manifest management were reinforced.</td>
</tr>
<tr>
<td>2010</td>
<td>The all generators have preservation duty of the paper manifest for 5 years.</td>
</tr>
<tr>
<td>2018</td>
<td>Penalties for misstatements are strengthened in manifests.</td>
</tr>
<tr>
<td>2020</td>
<td>Generators that discharge a large amount of specific industrial waste are obligated using e-manifests.</td>
</tr>
</tbody>
</table>
The Operation of Each Manifest System

- **Paper manifest**
  Original (A) and six copies (B1, B2, C1, C2, D and E)

- **E-Manifest**
  The generator, the transporter, and the disposer (the intermediate or the final disposer) share manifest data via JWNET.

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**Diagram:**

- **Waste generator**
  - Waste
  - Manifest B1-E
  - Manifest C1-E
  - Manifest B2
  - Manifest D,E

- **Transporter**
  - Waste
  - Input/check

- **Disposer**
  - Waste
  - Process finished
  - Transport finished

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Entries to Issue a Manifest

日本工業廃棄物情報センター

| Entry fields written in red are mandatory. |

**Discharging date**  | **Discharging place**  | **Person responsible**  | **Type of waste**  | **Quantity**  | **Form of container**  | **Quantity determiner**  | **Generator/ Transporter/ Disposer**  |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2016/01/01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Transporter**  | **Disposing plant**  | **Place of final disposal**  |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>As described in the contract/ As described here</strong></td>
</tr>
</tbody>
</table>

- **Discharging date**: Date the waste was discharged.
- **Discharging place**: Location where the waste was discharged.
- **Person responsible**: Responsible individual for the discharge.
- **Type of waste**: Specific type of waste being handled.
- **Quantity**: Amount of waste.
- **Form of container**: Type of container used.
- **Quantity determiner**: Method of determining the quantity.
- **Generator/ Transporter/ Disposer**: Parties involved in the waste handling process.

- **Transporter**: Individual or entity responsible for transporting the waste.
- **Disposing plant**: Plant where the waste will be disposed.
- **Place of final disposal**: Final destination of the waste.

- **As described in the contract**: Disposal method as per the contract.
- **As described here**: Disposal method as described in the document.

Additional fields include:
- **Disposing unit**: Unit responsible for disposal.
- **Place of final disposal**: Specific location for final disposal.
- **Contact person**: Contact person for further information.

**Note**: Entry fields written in red are mandatory.
### User Fees of E-Manifest

- **Generators (tax included)**

<table>
<thead>
<tr>
<th>Category</th>
<th>A</th>
<th>B</th>
<th>C (special price for parties)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic charge (per annum)</td>
<td>25,920 JPY (7,612.9 THB)</td>
<td>1,944 JPY (571 THB)</td>
<td>—</td>
</tr>
<tr>
<td>Service charge (per issue)</td>
<td>10.8 JPY (3.2 THB)</td>
<td>21.6 JPY (6.3 THB)</td>
<td>21.6 JPY (6.3)</td>
</tr>
</tbody>
</table>

- **Transporters and Disposers (tax included)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Transporter</th>
<th>Disposer</th>
<th>①</th>
<th>②</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic charge (per annum)</td>
<td>12,960 JPY (3,806.4 THB)</td>
<td>12,960 JPY (3,806.4 THB)</td>
<td>25,920 JPY (7,612.9 THB)</td>
<td>12,960 JPY (3,806.4 THB)</td>
</tr>
<tr>
<td>Service charge (per issue)</td>
<td>—</td>
<td>—</td>
<td>10.8 JPY (3.2 THB)</td>
<td>21.6 JPY (6.3 THB)</td>
</tr>
</tbody>
</table>

(≥ 91 issues)
Effects of E-Manifest System

- To prevent improper treatment of waste like illegal dumping
- To speed up in searching, retrieving and processing input data
- To reduce paper work burden and cost
- To enhance CSR (Corporate Social Responsibility)

A warning will be displayed when each deadline is close or has passed.

“●” means each report has already done.
### Transition of Number of Subscribers and Registrations

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Total subscribers</th>
<th>Breakdown of subscribers</th>
<th>Annual Number of e-Manifests created</th>
<th>Share of e-Manifests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Generator</td>
<td>Transporter</td>
<td>Disposer</td>
</tr>
<tr>
<td>2005</td>
<td>3,834</td>
<td>1,291</td>
<td>1,327</td>
<td>1,216</td>
</tr>
<tr>
<td>2006</td>
<td>7,784</td>
<td>4,083</td>
<td>1,921</td>
<td>1,780</td>
</tr>
<tr>
<td>2007</td>
<td>30,705</td>
<td>23,164</td>
<td>4,300</td>
<td>3,241</td>
</tr>
<tr>
<td>2008</td>
<td>43,493</td>
<td>33,718</td>
<td>5,775</td>
<td>4,000</td>
</tr>
<tr>
<td>2009</td>
<td>55,797</td>
<td>43,009</td>
<td>7,891</td>
<td>4,897</td>
</tr>
<tr>
<td>2010</td>
<td>72,761</td>
<td>57,837</td>
<td>9,388</td>
<td>5,536</td>
</tr>
<tr>
<td>2011</td>
<td>79,155</td>
<td>62,443</td>
<td>10,673</td>
<td>6,039</td>
</tr>
<tr>
<td>2012</td>
<td>89,015</td>
<td>70,792</td>
<td>11,720</td>
<td>6,503</td>
</tr>
<tr>
<td>2013</td>
<td>110,860</td>
<td>90,857</td>
<td>13,005</td>
<td>6,998</td>
</tr>
<tr>
<td>2014</td>
<td>121,745</td>
<td>100,137</td>
<td>14,210</td>
<td>7,398</td>
</tr>
<tr>
<td>2015</td>
<td>141,441</td>
<td>118,069</td>
<td>15,543</td>
<td>7,829</td>
</tr>
<tr>
<td>2016</td>
<td>173,500</td>
<td>148,492</td>
<td>16,826</td>
<td>8,182</td>
</tr>
<tr>
<td>2017</td>
<td>192,253</td>
<td>165,398</td>
<td>18,309</td>
<td>8,546</td>
</tr>
</tbody>
</table>
Transition of Number of Registrations and Electronization Rate

(Thousand)

the number of e-manifest  electronization rate

0% 10% 20% 30% 40% 50% 60%

0 5,000 10,000 15,000 20,000 25,000 30,000


Japan Industrial Waste Information Center
Breakdown of Subscribing Generators and Registrations by Industrial Sector

(as of March 31, 2018)

- **Waste generators**
  - Wholesale/retailing: 26%
  - Medical care/welfare: 55%
  - Construction: 6%
  - Manufacturing: 6%
  - Service (not covered by other sectors): 2%
  - Life-related services/entertainment: 1%
  - Others: 4%

- **Registrations**
  - Construction: 48%
  - Wholesale/retailing: 18%
  - Manufacturing: 12%
  - Medical care/welfare: 6%
  - Accommodations/food and beverage: 3%
  - Real estate/rental and leasing: 4%
  - Service (not covered by other sectors): 4%
  - Others: 5%
Administrative System for Local Government

- **Background of incorporation**
  - Prefectures and designated cities are entitled to request the JW Center to provide manifest information based on the Waste Management Law.
  - In order to simplify the procedures, prefectures and designated cities are entitled to use the administrative system to disclose the status of each manifest.
  - Some statistics can be downloaded.

- **Start of operation**
  - September 2012

- **User fee**
  - Free

- **Main functions**
  - E-manifest inquiry
  - Inquiry of improper manifest data
  - Output of annual report
  - Output of various statistics
  - Waste amount by industry classification and type of waste
  - Amount of wide-area transportation among prefectures by industry classification and type of waste
Our Vision

Our next goal is to reach 70% in electronization rate by 2022. This goal is given in the fourth Fundamental Plan for Establishing a Sound Material-Cycle Society (June 2018).

JW Center is actively working for promoting the use of the e-manifest.

- Strengthening of the functions for improving user convenience
  - e.g.) New function to facilitate issuing e-manifest with portable terminal devices at waste collecting site

- Seminars for free
  - Seminar for PC operating (65 times in FY2017)
  - Seminar for introducing e-manifest including internal or external adjustment (200 times in FY2017)
  - Interactive meeting (face to face) (40 times in FY2017)

JW Center will be also working on effective use of e-manifest information for national / local governments and business operators.