法律のための効果的な資源利用の促進について

法務省・経済産業省資源循環推進局

資源循環のための効果的な利用を促進するための法に基づく観点

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日本のための効果的な資源利用の促進について

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Prepare respective laws for the individual products whose treatment after discharge are becoming problems. Also prepared the Basic Act for the Promotion of the Recycling-Oriented Society as a basic framework, and the Law for Promotion of Effective Utilization of Resources which promotes all-around 3R activities.

Aim to build a "Recycle-Oriented Society" by promoting 3R (Reduce, Reuse, Recycle) where environment and economy is integrated, leaving behind the mass production/mass consumption/mass disposal type of economic society.

Effective use of valuable metal contained in small household appliances

Preferential measure to the approved operators of WDPC Law

Cost burdened by manufacturers and distributors

Containers and packaging Recycling Law (Enforced in 2000, amended in 2006)

Cost burdened by dischargers (consumers)


Cost burdened by dischargers (business operators)

Automobile Recycling Law (Enforced in 2003)

Countermeasure for the large-sized waste and garbage

Construction material Recycling Law (Enforced in 2002)

Countermeasure for other large-sized and massive waste

Food Recycling Law (Enforced in 2001, amended in 2007)

Residual of food

Designated the 69 products from industries including Personal computer

Prescribe the rules about building a voluntary collection/recycle system by manufacturers

Effective use of valuable metal contained in small household appliances

Countermeasure for the containers and packaging which account for 60% of domestic garbage

Countermeasure for the large-sized waste and garbage

Countermeasure for other large-sized and massive waste

Prepare respective laws for the individual products whose treatment after discharge are becoming problems. Also prepared the Basic Act for the Promotion of the Recycling-Oriented Society as a basic framework, and the Law for Promotion of Effective Utilization of Resources which promotes all-around 3R activities.

Aim to build a "Recycle-Oriented Society" by promoting 3R (Reduce, Reuse, Recycle) where environment and economy is integrated, leaving behind the mass production/mass consumption/mass disposal type of economic society.

Legal system for the individual products that are becoming problematic

Small household appliances Recycling Law (Enforced in 2013)

Containers and packaging Recycling Law (Enforced in 2000, amended in 2006)


Automobile Recycling Law (Enforced in 2003)

Construction material Recycling Law (Enforced in 2002)

Food Recycling Law (Enforced in 2001, amended in 2007)

Basic Act for the Promotion of the Recycling-Oriented Society (Enforced in 2001, amended in 2012)

Basic Framework Law

Basic Principle


**Legal system for the individual products that are becoming problematic**

- Small household appliances Recycling Law (Enforced in 2013)
- Containers and packaging Recycling Law (Enforced in 2000, amended in 2006)
- Automobile Recycling Law (Enforced in 2003)
- Construction material Recycling Law (Enforced in 2002)
- Food Recycling Law (Enforced in 2001, amended in 2007)

**Prescribe the rules about building a voluntary collection/recycle system by manufacturers**

- Small household appliances
- Containers and packaging
- Home appliance Recycling Law
- Automobile Recycling Law
- Construction material Recycling Law
- Food Recycling Law

**Basic Plan for the Promotion of the Recycling-Oriented Society** (Amended in May 2013)

**Basic Act for the Promotion of the Recycling-Oriented Society** (Enforced in 2001, amended in 2012)

- Reduce
- Reuse
- Recycle
- Heat Recovery (thermal recovery)
- Proper Disposal


- Municipal governments’ responsibility about discharging domestic garbage, Give permissions to the waste disposal business operators to open a business, Set up the waste disposal standards etc.
<table>
<thead>
<tr>
<th>カテゴリー</th>
<th>例示する製品カテゴリ</th>
</tr>
</thead>
<tbody>
<tr>
<td>特定のリユース促進製品</td>
<td>汽車、家電、パソコン、パチンコ機、金属家具、ガスおよび石油家電、浴室装置</td>
</tr>
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<td>特定のリサイクル製品</td>
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</tr>
<tr>
<td>特定の製品</td>
<td>炭素ニューエージェント産業、コンクリートスラブ、木材</td>
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</tr>
</tbody>
</table>
For the industries and products regulated by this law (10 industries and 69 commodities), manufacturing business operators are required to:

- **Reduce or recycle** the by-products generated in the manufacturing process.
- **Adopt environmentally considered product design.**
- **Collect and recycle** end-of-life products.

<table>
<thead>
<tr>
<th>Consumption</th>
<th>Distribution</th>
<th>Materials</th>
<th>Product lifecycle</th>
</tr>
</thead>
</table>

**Disposal**

- Specified by products
- Specified resource-saved products
- Specified labeled products
- Designated resource-saving industries (again)
Industries that should reduce and recycle by-products:
- Pulp and paper manufacturing (sludge)
- Inorganic and organic chemical manufacturing (sludge)
- Iron making and steel making/rolling (slag)
- Primary copper smelting and refining (slag)
- Automobile manufacturing (metal scrap, molding sand)

Establish "standards of judgment" for measures undertaken by business operators for the purpose of promoting the reduction of generation of by-products and utilization of recyclable resources. (For each industry)

Standards of judgment (ministerial ordinance):
- Set by-product reduction targets
- Systematic maintenance of equipment
- Technology improvement
- Consolidated manager of operations
- Processing according to regulations or specifications
- Systematic public disclosure

Take the standards of judgment into consideration and work to promote the reduction of generation of by-products and utilization of recyclable resources in their business.

Establish a plan to promote reduction of generation of by-products and utilization of recyclable resources, and submit it to the competent minister.

Submit plan to the national government

Operations based on plan

National government

Business operator
Industries that should reuse raw materials, and industries that should reuse parts:

**Utilization of recyclable resources: 4 industries**
- Paper manufacturing (used paper)
- Rigid PVC pipes and pipe fitting manufacturing (pipe fittings, etc.)
- Glass container manufacturing (cullets)
- Construction industry (sand, pieces of concrete, etc.)

**Utilization of recyclable parts: 1 industry**
- Copier manufacturing (drive mechanisms, exposure units, etc.)

Establish "standards of judgment" relating to utilization of recyclable resources and parts by business operators in their plants and workplaces. (For each industry)

Take the standards of judgment in to consideration and work to promote the utilization of recyclable resources and parts in their business.

**Standards of judgment (ministerial ordinance)**
- Set targets
- Equipment maintenance
- Technology improvement
- Establishment of plan for utilization of recycled raw materials, and implementation status log
- Provision of quality information

**Reflect in operations**

National government

Business operator
Products that should be designed to save resources and have longer service life (19 commodities) include automobiles, personal computers, home appliances (air conditioners, televisions, microwave ovens, clothes dryers, refrigerators, washing machines), pachinko machines (including rotary type), metal furniture, shelves, office desks, swivel chairs, and gas and oil appliances.

Establish “standards of judgment” relating to the reduction of the generation of end-of-life parts, etc. in manufacturing and other industries. (For each commodity)

Take the standards of judgment into consideration and work to reduce the generation of end-of-life parts in their businesses.

National government
Standards of judgment (ministerial ordinance)
Establish “standards of judgment” relating to the reduction of the generation of end-of-life parts, etc. in manufacturing and other industries. (For each commodity)

Business operator
Reflect in operations
Take the standards of judgment into consideration and work to reduce the generation of end-of-life parts in their businesses.

<Standards of judgment overview (example)>
- Rational use of raw materials
- Promotion of using products a long time
- Ensure opportunities for repair
- Technology improvement
- Assessment in advance
- Efforts relating to packaging materials
- Provision of information relating to product structure and repair
Establish “standards of judgment” relating to designing products that can be easily recycled, such as the ease with which parts can be removed from used products. (For each product)

Take the standards of judgment into consideration and design their products so that they can be easily recycled.

<Standards of judgment overview (example)>
- Efforts relating to raw materials
- Making products easier to disassemble due to efforts relating to structure
- Efforts relating to separation (labeling, etc.)
- Technology improvement
- Assessment in advance
- Provision of information
- Efforts relating to packaging materials
Products to be marked:
- Lead and its compounds
- Mercury and its compounds
- Hexavalent chromium compound
- Cadmium and its compounds
- Polybrominated biphenyl (PBB)
- Polybrominated diphenyl ether (PBDE)

Standards of judgement (Summary)

(Provision of Information)

The manufacturers etc. are required to provide the information regarding the type and rates of substances contained in the products in order to encourage the use of recyclable resources or recyclable parts of these products. The information will be provided in accordance with JIS C0950.

→Mandate the manufacturers/importers of the products to provide the information about contained substances.

Present the contain mark on the body of product and the packing boxes.

In the product brochures, instruction manuals and the website of the product, indicate places where the substances are contained and their amounts along with a contain mark.

Marking method by JIS C0950

Contain Mark

The manufacturers etc. are required to provide the information regarding the type and rates of substances contained in the products in order to encourage the use of recyclable resources or recyclable parts of these products. The information will be provided in accordance with JIS C0950.

→Mandate the manufacturers/importers of the products to provide the information about contained substances.

Presented on the body of the product, packing boxes, brochures etc..
Products that require special labeling to promote selected collection by consumers and municipalities

Establish "standards for labeling" that prescribes information that should be displayed and points of compliance.

National government

Establish “standards for labeling” that prescribes information that should be displayed and points of compliance.

Reflect in operations

Display the prescribed labels on their products.

Business operator

<Standard labels (examples)>

- Information that should be displayed
  - Material
  - Plate material for sealed batteries

- Points of compliance
  - Design of the identification mark
  - Size of the identification mark
  - Prominence of the identification mark

(1) Containers and packaging
(2) Compact secondary batteries
(3) Rigid PVC products
Products that require business operators to undertake self-collection and recycling:

Establish “standards of judgment” relating to self-collection and recycling targets and coordination between municipalities.

Take the “standards of judgment” into consideration and collect and recycle their products.

Standards of judgment (ministerial ordinance)
- Establish “standards of judgment” relating to self-collection and recycling targets and coordination between municipalities.

<Standard of judgment (examples)>
- Self-collection implementation method (recycling compensation, etc.)
- Recycling targets
- Recycling implementation method
- Condition where businesses take back specified used resource-recycled products from municipalities
- Matters relating to heat recovery

Recycling targets

<table>
<thead>
<tr>
<th></th>
<th>Personal computers</th>
<th>Sealed batteries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktops</td>
<td>50%</td>
<td>Sealed lead batteries 50%</td>
</tr>
<tr>
<td>Laptops</td>
<td>20%</td>
<td>Sealed nickel-cadmium batteries 60%</td>
</tr>
<tr>
<td>CRT displays</td>
<td>55%</td>
<td>Sealed nickel-metal-hydride batteries 55%</td>
</tr>
<tr>
<td>Liquid crystal displays</td>
<td>55%</td>
<td>Lithium batteries 30%</td>
</tr>
</tbody>
</table>
By-products that should be reused as raw materials

Establish “standards of judgment” relating to the promotion of utilization of recycled resources by business operators. (For each specified by-product)

Standards of judgment (ministerial ordinance)

- Maintenance of equipment
- Technology improvement
- Creation of by-product utilization plan
- Provision of information to parties that utilize by-products

<Standard of judgment (examples)>

Take the standards of judgment into consideration and promote the utilization of specified by-products as resources (such as construction materials).
Based on the Law for the Promotion of Effective Utilization of Resources, initiatives for the 3Rs are promoted across 10 industries and 69 product categories. Each year a survey is conducted to assess the state of initiative implementation by businesses and, if necessary, to encourage improvements.

The overall state of initiatives is shown in the following table. As a whole, initiatives are progressing significantly since 1991, when the law was introduced.

<table>
<thead>
<tr>
<th>Type and industry product</th>
<th>Outline of the Standards of judgment</th>
<th>State of initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobiles</td>
<td>• Use of lightweight chassis and engine components</td>
<td>• Developed a resin material for the parts that realizes to lighten the vehicle weight while keeping the equivalent rigidity. Used for the front and rear bumpers (2014)</td>
</tr>
<tr>
<td>Air conditioners</td>
<td>• Use of high-durability components</td>
<td>• Introduced thinner and lighter design by using CAE (simulation analysis by computer) (2013)</td>
</tr>
<tr>
<td>Storage furniture, office desks, swivel chairs</td>
<td>• Rationalization of material use</td>
<td>• Reduced the thickness of steel plate by devising the shape of leg assistance (2013)</td>
</tr>
<tr>
<td>Televisions</td>
<td>• Reduce number of screws to make removal of parts easier</td>
<td>• Display the fire-retarding and other materials used, and display the number of screws used (Since 1996)</td>
</tr>
<tr>
<td>Kerosene heaters</td>
<td>• Make parts easier to remove through inventive construction</td>
<td>• Materials of resin parts need to be displayed if it is 100g or over. The parts less than 100g will also be displayed to the extent possible.</td>
</tr>
<tr>
<td>Paper manufacturing</td>
<td>• Used paper recycling rate of 64% by the FY 2015</td>
<td>• Used paper recycling rate: 52.3% (1991) → 63.9% (2014)</td>
</tr>
<tr>
<td>Glass container manufacturing</td>
<td>• Cullet utilization rate of 97% by the FY 2015</td>
<td>• Cullet utilization rate: 51.8% (1991) → 99.2% (2013)</td>
</tr>
<tr>
<td>Copier manufacturing</td>
<td>• Increase amount of recycled parts used</td>
<td>• Amount of recycled parts utilized: 129 ton (2001) → 1,782 tons (2009)</td>
</tr>
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<tr>
<td><strong>PET bottles</strong></td>
<td>Manufacturers and importers must comply with identification labeling</td>
<td>Labeling rate 100% (2012)</td>
</tr>
<tr>
<td><strong>Compact secondary batteries</strong></td>
<td>Manufacturers and importers must comply with identification labeling</td>
<td>Labeling rate 100% (2012)</td>
</tr>
</tbody>
</table>
| **Personal computers**    | Self-collection of used products by manufacturers and importers  
- Target recycling rates: 50% (Desktops), 20% (Laptops)  
55% (CRT displays), 55% (Liquid crystal displays) | <Recycling Rates>  
- Desktop PCs: 38.8% (2001) → 78.4% (2013)  
- Laptops: 38.8% (2001) → 59.3% (2013)  
- CRT displays: 66.2% (2001) → 70.9% (2013)  
- Liquid crystal displays: 71.0% (2001) → 74.3% (2013) |
| **Compact secondary batteries** | Self-collection of used products by manufacturers and importers  
- Target recycling rates: 50% (Sealed lead batteries), 60% (Sealed nickel-cadmium batteries), 55% (Sealed nickel-metal-hydride batteries)  
30% (Lithium batteries) | <Recycling Rates>  
- Sealed lead batteries: 50% (2001) → 50% (2013)  
- Sealed nickel-cadmium batteries: 70.9% (2001) → 72.2% (2013)  
- Sealed nickel-metal-hydride batteries: 69.0% (2001) → 76.6% (2013) |
| **Automobile manufacturing** | Business operators setting targets for the reduction of scrap metal generation  
- Systematic facilities, such as equipment for collecting scrap metal and magnetic separators | Prepared melting furnaces to re-use scraps as raw material (2013)  
- Final amount processed: 20,000 tons (2002) → 400 tons (2013) |
| **Pulp/paper manufacturing** | Business operators setting targets for the reduction of paper sludge generation  
- Systematic facilities, such as fiber recovery equipment and combustion equipment  
- As a facility to collect tiny fibers, paper-materials-collecting equipment such as pressurized flotation unit and filters were introduced (2013)  
- Final amount processed: 486,000 tons (2002) → 419,000 tons (2008) |
| **Iron making and steel making/rolling** | Business operators setting targets for the reduction of iron and steel slag generation  
- Systematic facilities, such as dehydrators, storage tanks, and dust collectors  
- Introduced facilities to re-use in the iron manufacture processes (2014)  
- Final amount processed: 720,000 tons (2002) → 730,000 tons (2008) |
| **Coal ash generated by the electricity industry** | Business operators creating plans to promote utilization of coal ash  
- Processing coal ash into things such as admixture for mortar | Expanded applications for coal ash (Providing samples) (2013)  
- By-product recycling rate: 67.7% (1999) → 95.9% (2008) |
Reference
As well as strengthening the existing recycling measures, a formal introduction of the following measures were proposed in order to form a recycling-oriented economy.

- **Reduce**
  - Prevent the waste to be generated with resource-saving and longer-lasting products

- **Reuse**
  - Reuse of products, parts, etc.

- **Recycle**
  - Selecting materials easy to recycle and designing products easy to disassemble
  - Labeling for selective collection
  - Promotion to recycle the by-products generated in plants

**1991 Law for Promotion of Utilization of Recycled Resources** Utilization of collected products as raw materials

**Selecting materials easy to recycle and designing products easy to disassemble**

**1999 Vision for a Recycling-Oriented Economy**

**2001 Law for the Promotion of Effective Utilization of Resources**

**Law amendment** Considerably more measures were added

**Aim of the law** To ensure the effective utilization of resources and to take necessary measures to reduce the generation of used products, etc. and by-products and promote the utilization of recyclable resources and reusable parts in order to contribute to waste reduction and environmental preservation.
### Main points of the ministerial ordinance

<table>
<thead>
<tr>
<th>Ensuring implementation of self-collection, other implementation methods</th>
<th>Standards of judgment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target business operator</strong></td>
<td>○ Personal computer manufacturers, etc.</td>
</tr>
<tr>
<td><strong>Compensation</strong></td>
<td>○ No compensation shall be gained when performing self-collection (excluding items generated in business activities or items sold by retailers on or before September 30, 2003).</td>
</tr>
<tr>
<td><strong>Public disclosure</strong></td>
<td>○ The implementation status of self-collection shall be disclosed publicly.</td>
</tr>
<tr>
<td><strong>Self-collection method</strong></td>
<td>○ Self-collect from predetermined collection points</td>
</tr>
<tr>
<td><strong>Target products</strong></td>
<td>○ Personal computers and peripherals</td>
</tr>
</tbody>
</table>
| **Recycling targets** | ○ The target gross weight of materials utilized as “recycled parts or recycled resources (excluding chemical transformation)” shall not be set less than the following ratios of the gross weight of applicable used personal computers.  
- Desktops: 50%  
- Laptops: 20%  
- CRT displays: 55%  
- Liquid crystal displays: 55%  |
| **Coordination with municipalities** | ○ Shall be taken back when requested by municipalities.  
○ Take-back conditions shall be publicly disclosed.  |

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#### Standards of judgment from the Law for the Promotion of Effective Utilization of Resources (ministerial ordinance)

PC recycling for home  
Post office  
Request collection  
Send eco-post delivery slip  
Collection/delivery contractor  
Use the regional system based on the Waste Management Law  
Collection  
Delivery  
Recycling facility  
Organization  
Distribution company  
Request collection  
Send quotation  
Contract  
Collection/delivery contractor  
Use the regional system based on the Waste Management Law  
Collection  
Delivery  
Recycling facility
### Main points of the ministerial ordinance

<table>
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<tr>
<th>Ensuring implementation of self-collection, other implementation methods</th>
<th>Standards of judgment</th>
</tr>
</thead>
</table>
| **Target business operator** | ○ Battery manufacturers, etc.  
○ Manufacturers of products that use batteries, etc. |
| **Target products** | ○ Sealed (compact secondary) batteries |
| **Self-collection method** | ○ Establish the necessary methods for self-collection, such as designating self-collection points, or providing collection boxes.  
○ When self-collected the batteries, the business operators such as manufacturers of products that use batteries shall hand them over to the battery manufacturers without delay. (However, there is nothing to prevent them recycling the batteries themselves.) |
| **Compensation** | ○ No compensation shall be gained when performing self-collection. |
| **Public disclosure** | ○ The implementation status of self-collection shall be disclosed publicly. |
| **Compensation provision** | ○ Battery manufacturers shall adopt necessary measures for ensuring self-collection is implemented, such as providing compensation. |

### Recycling targets

<table>
<thead>
<tr>
<th>Setting recycling rates</th>
<th>The target gross weight of iron, lead, nickel, cobalt, cadmium, and other materials able to be utilized as recycled resources shall not be set less than the following ratios of the gross weight of applicable used sealed (compact secondary) batteries.</th>
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<tr>
<td>• Sealed lead batteries</td>
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<td>• Lithium batteries</td>
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</tbody>
</table>

### Coordination with municipalities

| Take-back by municipalities | ○ Shall be taken back when requested by municipalities.  
○ Take-back conditions shall be publicly disclosed. |

#### Sealed (compact secondary) battery recycling for home

- **Home**
- **Retailer (Cooperating on recycling)**
- **Distribution company**
- **Recycling facility**

#### Sealed (compact secondary) battery recycling for businesses

- **Organization**
- **Distribution company**
- **Recycling facility**