For Infinite “Zero Landfill”

Fuji Xerox Integrated Recycling System
— Progress Report 2016 —
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～ Purport of Issue of Progress Report and Its Formation ～
This report is prepared and published as a yearly report on the integrated recycling system activities of Fuji Xerox. These activities are summarized in the brochure, “Integrated Recycling System of Fuji Xerox” – Fuji Xerox’ Efforts on Product Recycle – . This report is compiled in contrast with that brochure. Please refer to the brochure also.

～ Coverage of Description and Period and Areas of Progress Report ～
- Coverage of Description: Recycle activities for used products (including cartridges)
- Period: From April 2015 to March 2016
- Areas covered: Fuji Xerox’ sales and service areas in Japan and overseas
Message from Chairman

The world leaders from 150 countries gather in COP 21 (The 2015 United Nations Climate Change Conference), which was held in Paris last year, from the start. It seems that a growing worldwide interest in the environment has been taken. In COP21, “Paris Agreement” was adopted as international framework of a countermeasure against global warming since 2020. In Paris Agreement, stringent efforts as well as high goals are required, for example:

- Reduction target must be reported every half-decade.
- Global average temperature increase must be limited to $2^\circ C$ as compared with pre-industrial levels.
- Developed countries must provide economic assistance to industrializing countries.

The operation problems of nuclear power plants (most of them have been shut down since the Great East Japan Earthquake) and further expansion of renewable energy pose a significant challenge for Japan.

To achieve sustainable environment on the earth, Fuji Xerox will continue to make efforts to reduce the emission of greenhouse gasses and the consumption of new resources. Regarding the results of reuse activities in 2015, reduction in the amount of new resources stood at about 3,273 tons (+357 tons against the previous year), while reduction in CO2 emission was about 17,732 tons (+1,292 tons against the previous year). The reason why reduction in the amount of new resources and reduction in CO2 emission have increased against the previous year is because the use of reused parts-based merchandise goods and consumables have increased. In the initiatives for “Zero landfill”, we could continuously achieve the recycling rate of 99.5% or more in Japan, Asia, Pacific, China, Taiwan, South Korea, Australia, and New Zealand. Fuji Xerox will continue to pursue “Zero landfill” in future, and in addition to reducing CO2 emission and use of new resources.

Finally, we would like to take this opportunity to express our gratitude to our customers, partner companies, and various national administration officials who extended their support to Fuji Xerox integrated recycling system. In future as well, we would continue our efforts for the conservation of global environment.

We would be glad if this report help you in enhancing your understanding about Fuji Xerox Integrated Recycling System.
We established an “integrated-recycling system” out of recognition that the efforts to reduce the environmental loads of our used products are one of our CSR (Corporate Social Responsibility) as a manufacturer. This system aims at reduction of environmental loads of products throughout their life cycle based on the conception that used products are valuable resources, not waste. On the basis of a “Closed-Loop System” in which products released to the market are collected and parts sorted out of them are circulated in a closed circle under strict quality assurance, we have extended the sphere of our activities to the “inverse manufacturing” aiming at products with less environmental loads by reusing parts, and “zero emission” aiming at full utilization of products by selecting out parts which cannot be reused and using them as resources.

~ Progress of Integrated Recycling System ~

Global reach through all recycling bases in Japan and overseas.
Holding workshops.
Local recycling treatment in Korea/Australia/New Zealand “Zero Landfill” attained at the China integrated recycling base Certified by the Chinese Government as an electric product recycling model company in China, an integrated recycling base. Attained “zero landfill” in the Asia and Pacific regions.
Chinese integrated recycling system started operation
Number of products using recycled parts exceeded 300,000
Integrated Asia and Pacific recycling system started operation “Compound machine and copy machine collection system” Establishment and service start of “printer collection system”
Certified as a “designated wide-area recycling industrial waste disposal contractor”
Attained “zero landfill” in Japan
Publication of environment data with new eco label, “Product Eco Data” Nationwide expansion start of zero landfill system for collected products
Number of products using recycled parts exceeded 100,000
Established of recycle ABS resin Closed-Loop System
Release of products using recycled parts to market
Establishment of company-wide policy for product recycle Planning for circulation system (product recycle) concept Establishment of basic company-wide environment policy

Sustainable Society

'00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14

Establishment of company-wide policy for product recycle Planning for circulation system (product recycle) concept Establishment of basic company-wide environment policy

Life-Cycle Planning
Environmental Impact Assessment
Closed Loop System
Materials Reuse
Parts Reuse
Reuse/Recycle Design
Inverse manufacturing
Separation of Hazardous Substances
Thermal Recycle
Zero emission
Zero landfill/No pollution/Zero illegal dumping

13. Taoyuan County Excellent Performance Enterprises Award Fuji Xerox Taiwan 2012 Kanagawa Prefecture Award for Distinguished Work in Environment Improvement – Fuji Xerox Manufacturing
14. Recycling System Leading Company Award — Presidential Citation — Fuji Xerox Korea
10. Received Gold Medal in the Waste Management Plant Ranking Asia and Pacific regions integrated base. Nov. ‘08: Nikkei global environment technology award Monozukuri (special Creation) environment special award
Dec. ‘07: Received “Resource environment technology/system award” — Presidential award/encouraging prize from Industrial Science and Technology Policy and Environmental Bureau
Apr. ’07: 3R promotion meritorious person conference presidential award
Apr. ’06: 10th global environment grand prize, prize for excellent company selected by Global Environment Conference
Mar. ’06: Integrated recycling technology/system prize, prize by the Minister of Economy
June ’99: 26th environment prize, awarded for excellence
Dec. ’98: Prize by the Minister for global warming prevention activities
Oct. ’98: Excellent forefront enterprise prize
April ’98: Global environment grand prize, director’s award from Department of Science and Technology

Blue characters: Topics
Green characters: Prizes given to this system
For Evolution of Integrated Recycling System

Our integrated-recycling system involves activities to reduce environmental loads by utilizing used products as resources, aiming at contributing to buildup of a sustainable society. In Japan, we released products utilizing reused parts to the market in 1995. In 2000, we established a zero landfill system to make use of all parts and products which cannot be reused to reuse parts as resources. Since then, we have been continuing activities for further improvements of those systems. We will further continue to pursue the reduction of environmental loads in the life cycle of products and improve the systems.

Initiatives for optimization of integrated recycling system

With the business becoming global, Fuji Xerox believes that it must take similar initiatives in overseas as in Japan in order to reduce burden on the environment. Based on this thought process, it has established integrated recycling systems equivalent to Japan by setting up recycling sites were established in Thailand in 2004, Taiwan in 2007 Suzhou and China in 2008. So far, our recycling activities for the Asia Pacific region were consolidated at our recycling site in Thailand for achieving “Zero landfill”, in order to comply with the revision to Basel Convention and stricter domestic laws (rules and regulations concerning export of hazardous waste) of developed countries for export of used articles, after confirming that we can achieve “Zero landfill” in Korea, Australia, and New Zealand, we started the recycling treatment locally in these countries.

To the Next Step toward Further Reducing New Resource Consumption

Fuji Xerox considers used products as valuable resources, not waste. Based on this concept, we have introduced products using reused parts to the market since 1995. Newly launched products have adopted new technologies, but collected products are several years old. This makes reusing parts quite challenging. Fuji Xerox has been working to enhance recycling of plastic as well as to design reusable parts as early as product development. We will continue our efforts to our next step toward further reducing the use of new resource while maintaining "Zero landfill".

We aim to recycle the recovered resources with methods that will put lesser burden on environment

There are several types of method of using the recovered resources. Some of the main methods are “parts reuse” where parts are reused as parts, “material recycling” where parts and converted into raw materials and then used as raw materials, and “thermal recycling” where parts are used as auxiliary fuel. At Fuji Xerox, our most preferred method of reusing resources is “parts reuse” because it places lesser burden on environment.
Fuji Xerox Asia Pacific Receives “Sustainable Business Awards Singapore 2015”

Fuji Xerox Asia Pacific Pte Ltd. Which manages the entire sales country in Asia Pacific region has won the “Sustainable Business Awards Singapore 2015” sponsored by Global Initiatives. Global Initiatives based in Singapore / London / Hong Kong spreads this award in six ASEAN countries Singapore / Indonesia / Malaysia / Philippines / Thailand / Vietnam.

Fuji Xerox Asia Pacific Pte Ltd. achieved “Zero Waste to Landfill”, “zero pollution” “the illegal dumping zero” and deploys the environment-friendly sustainable activities in their locations in over 9 countries across the globe such as Australia, Philippines, Indonesia, Singapore, Thailand.

For example, we built an international resource recycling system that can collect the used plastic materials to recycle the high-quality plastic materials in cooperation with the chemical manufacturer. The reason why we won the “Sustainable Business Awards Singapore 2015” is because our continuous contribution to a resource recycling society was highly evaluated across their own business field.
Results of Activities in 2015 (Japan)

Activities to promote Parts Reuse Activities
Reuse of parts will be expanded to the next generation by the life recycle planning on the assumption of reuse of parts from the stage of merchandise planning and design. In the 2015 fiscal year, 5 models with the recycle design manual applied were produced, and the accumulated total from 1998 reached 88 models. To increase the rate of reused parts, Fuji Xerox continues the reuse and recycle design. Applicable products based on this design method will be increased.

Closed-Loop System

Activities to promote Collection of Own Used Products under Own Responsibilities and Effective Applications of Resources
Reduction in the amount of new resources due to recycling and parts reuse stood at 3,273 tons in 2015. Compared to previous year, although we were able to reduce the amount of new resources by about 357 tons, This is due to the increase in production of products and consumables using reused parts. We will continue to engage in activities for reducing the amount of new resources by using reused parts with less environmental load.

Zero Emission

Activities for “Zero landfill/No pollution/Zero illegal dumping”
Used products collected in the 2015 business year and sent to landfill was 0% so that zero emission was attained continuously. Landfill rate of 0% was attained and has been maintained also for the consumable cartridges. In fiscal 2015, to improve the “quality” of dismantling and sorting as with the previous year, we worked aggressively to improve the work environment. In future also, we will maintain our “Zero landfill” initiative, and work on environment friendly method and improving quality.

Overall Evaluation

Environmental load reduction effect by “integrated recycling system” activities
By collecting used items and reusing them as parts, CO₂ is reduced more than when items are manufactured using only new parts. In 2015, 17,732 tons of CO₂ discharge was reduced (+1,292 tons against previous year).

At Fuji Xerox, we are aiming at reducing CO₂ discharge by 30% in the 2020 (as compared to 2005).
Results of Activities in 2015 (Overseas)

Basic principle 1: Collection of used products under manufacturer’s responsibility prevents illegal dumping

It was confirmed that there is no illegal dumping by a tracking system through recycle processes (shown below) from export by marketing companies to completion of handling by recycle partners.

1. Comparison between shipment information of marketing companies and acceptance information at Fuji Xerox Eco-Manufacturing/Fuji Xerox Eco-Manufacturing (Suzhou)
2. Comparison between acceptance information and disassembling and assortment information at Fuji Xerox Eco-Manufacturing/Fuji Xerox Eco-Manufacturing (Suzhou)
3. Comparison between the manifest issued when the object reconverted into resources is shipped by Fuji Xerox Eco-Manufacturing/Fuji Xerox Eco-Manufacturing (Suzhou) and the manifest returned upon completion of treatment by recycle partners

* We also have confirmed that there is not illegal dumping by managing manifesto in Korea, Taiwan, Australia, and New Zealand.

Basic principle 2: Not to import wastes

Utilize used products as “valuable resources” as far as possible with cooperation of recycle partners aiming at “zero landfill” (landfill/simple incineration)

<table>
<thead>
<tr>
<th>Rate of recycling</th>
<th>Rate of recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Asia and Pacific regions, machine main body)</td>
<td>(China, machine main body)</td>
</tr>
<tr>
<td>'11</td>
<td>'12</td>
</tr>
<tr>
<td>99.9</td>
<td>99.9</td>
</tr>
</tbody>
</table>

Actual recycling rate for 2015 in other overseas recycling bases is as follows:

* South Korea: 99.9%, Taiwan: 99.9%, Australia: 99.6%, New Zealand: 99.7%

Basic principle 3: Not to incur environmental impact on importing countries and regions (recycle base construction countries/regions)

Cooperation of recycle partners is essential to build up international integrated recycling system. We carry out environment investigations periodically based on our original standards (shown below).

It was confirmed that there is no problem based on those standards.

1. Environment management system is available and functioning.
2. Occupational health and safety measures are taken enough.
3. There are proper monitoring, recording and reporting programs for the environment and safety.
4. There is a proper employee education program.
5. There is a proper urgent handling plan.

Basic principle 4: Return of merits to importing country (recycle base construction countries/regions)

To continue the international integrated recycling system, environmental impacts should be completely eliminated, and in addition, merits of reuse of resources should be returned to importing country. Parts disassembled or sorted out of used products imported are treated by a recycle partner in the recycling base establishing country and regenerated as resources.
Postscript

Thank you for your having read through our activity report. We have been taking a lead in activities to resolve the global environmental problems and striving to promote an integrated recycling system. In reviewing our activities during the past year, we realize there has been, and will continue to be, a host of new activity and challenging requirements. We therefore remain dissatisfied with our own present state of progress and are committed to greatly expanding our efforts. With this intention in mind, your comments on the report would be most welcome and greatly appreciated.

Please visit and see our home page below.
Integrated Recycling System brochure:
  http://www.fujixerox.co.jp/eco/cycle/communication/publications.html
Integrated recycling product labe
  http://www.fujixerox.co.jp/company/eco/cycle/communication/eco_label.html
Product eco data: http://www.fujixerox.co.jp/company/eco/office/green/product_eco/

Issue
Global Recycling System Division, Manufacturing Unit, Fuji Xerox Co., Ltd.

Cooperation
Fuji Xerox Manufacturing Co., Ltd.
  Takematsu Center
  Suzuka Center
Fuji Xerox Eco-Manufacturing Co., Ltd. (Thailand)
Fuji Xerox Eco-Manufacturing (Suzhou) Co., Ltd. (China)

Comments and inquiries about this report
Global Recycling System Division, Manufacturing Unit, Fuji Xerox Co., Ltd.
product-recycling@fujixerox.co.jp