Sustainability Management

Special Feature

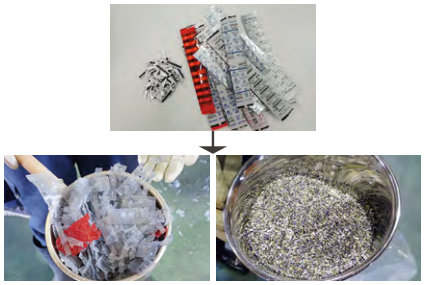
D Initiatives to Contribute to a Carbon-Neutral Circular Economy

Mechanical recycling of blister packs

Nihon Generic is working with ORIX Eco Services, an industrial waste disposal company, to recycle blister packs, which are made from a single-layer plastic material. Formerly, blister packs that were no longer needed were disposed of as industrial waste and then incinerated, because it was impossible to separate the plastic and aluminum layers into a recyclable form. Now, drawing on a new technique and equipment that have been rolled out at ORIX Eco Services, it is possible to separate the plastic and aluminum layers of the packs. The plastic can then be used as a raw material for building materials and the aluminum can be melted down and reused in a variety of aluminum products.
Nihon Generic's Tsukuba Plant No. 2 discharged the equivalent of 29.5 tons of discarded blister packs in FY2023, all of which will now be eligible for recycling. Compared to the conventional incineration method, this approach is expected to reduce CO_2 emissions by around 90%.

12 Reduce waste materials and increase the efficiency of resource usage, especially at pharmacies and plants

FY2023 results	Targets for FY2024 and beyond
21,140 kilograms (August 2023–March 2024) (25% of total)	Expand number of participating plants



Mechanical recycling of sludge

Nihon Generic will also start recycling sludge materials in FY2024. Up until now, sludge generated in the drug manufacturing processes was discharged as industrial waste, incinerated at intermediate treatment facilities, and the residue was then disposed of in landfills at final treatment facilities. Now, by drawing on a new technique and equipment that have been rolled out at ORIX Environmental Resources Management, it is possible to recycle gas generated from the waste using a method of chemical recycling called pyrolysis-gasification reforming. Meanwhile, waste that has been dried and treated using pyrolysis and then melted (mechanical recycling) can be separated into slag, metal, metal hydroxide, and other materials and reused for roadbed materials and other applications. In FY2023, of the 30 tons of sludge discharged from Nihon Generic's Tsukuba Plant, nine tons of residue was disposed of in landfills after incineration. With the new recycling method, however, about 85% of waste will undergo chemical recycling (gasification) while around 15% will undergo mechanical recycling, yielding slag, metal, metal hydroxide, and other materials. This approach enables the complete recycling of sludge—it generates no incinerated or fly ash and no waste ends up in a landfill.

12 Reduce waste materials and increase the efficiency of resource usage, especially at pharmacies and plants

FY2023 results	Targets for FY2024 and beyond
46.59 tons (27.3% of total)	Expand number of participating plants

Adjustment of unused drugs

If patients receive a new prescription while still having unused medications at home, they may confuse the new and unused drugs and use them incorrectly. Likewise, they may take unused drugs without realizing they are past their expiration date. There is a chance that this will interfere with the correct use of medications at the correct dosage. Reducing unused drugs is not only necessary to ensure that patients use drugs properly, but also leads to fewer drugs being thrown away. At Nihon Chouzai pharmacies, pharmacists can confirm the status and number of medications and contact the prescribing doctor to have them adjust prescription lengths. Pharmacists are also seeking to reduce unused drugs by preparing memos explaining the situation for patients to give to the doctor directly at their next visit. Pharmacies also collect medications to be disposed of.

12 Reduce waste materials and increase the efficiency of resource usage, especially at pharmacies and plants

FY2023 results	Targets for FY2024 and beyond
Approximately 224.65 million yen	Implement schemes to reduce waste other than unused drugs

Converting pharmacies to LED lighting

Nihon Chouzai has set a goal of reducing CO_2 emissions per pharmacy by 30% by FY2030 (compared to FY2020). After exploring various avenues toward achieving this goal, we opted to convert our pharmacies to LED lighting as one of several initiatives. We have adopted LED lighting in all new pharmacies opened since June 2016. Around 460 pharmacies that opened before that have not yet made the changeover. We will convert these locations to LED lighting in stages to reduce Scope 2 CO_2 emissions while working to cut electricity costs.

13 Reduce CO_2 emissions by increasing energy usage efficiency and promoting the use of renewable energy

FY2023 results	Targets for FY2024 and beyond
Converted 97 pharmacies	Convert remaining 400 pharmacies to LED lighting in stages (200 in FY2024)

Solar power generation

Nihon Generic's Tsukuba Plant has installed solar power generation equipment under a corporate power purchase agreement with Tokyo Century and Kyocera Communication Systems, an in-house power generation support service offered by these two companies in an effort to help achieve the SDGs. The use of renewable energy generated by solar power generation equipment installed on the grounds of the plant will reduce CO_2 emissions by approximately 347.1 tons-CO_2 per year (estimate for the first year of operation). Tokyo Century and Kyocera Communication Systems are covering the startup costs and procedures for this service. In addition, Tokyo Century will donate a portion of the service fees paid by the Tsukuba Plant to NPOs and other organizations taking action to achieve the SDGs.

13 Reduce CO_2 emissions by increasing energy usage efficiency and promoting the use of renewable energy

Scaling down the number of wholesale deliveries

In April 2023, Nihon Chouzai began coordinating with drug wholesalers to scale down the number of drug deliveries to pharmacies. We have harnessed the strengths of our pharmacy chain to conduct more streamlined inventory management, reducing the number of deliveries from two or three times a day to once a day, thus achieving lower CO_2 emissions and more efficient operations. We will continue to engage with business partners to optimize the supply chain.

14 Build environment-friendly and society-friendly supply chains with outstanding transparency

FY2023 results	Targets for FY2024 and beyond
Launched initiative to scale down deliveries from two or three times a day to once	Expand initiative, achieve more optimal order quantities