Resource Circulation and Pollution Prevention

Our Approach

To help realize a sustainable society, NEC strives for the effective use of limited resources and is committed to activities based on our Environmental Policy, which affects every process from production to use. This includes initiatives to promote resource circulation and efforts to lessen environmental impact through waste reduction or other methods. In particular, we are working to collect and recycle hardware products that have been used by customers, since many resources are used in their production.

☞ Collection and Recycling

Resource Circulation

Finding Risks and Opportunities

Risk / Opportunity	Description	Risk reduction measures / Specific opportunities
Risk	Tighter relevant regulations at home and abroad require time and resources to appropriately address. If the response is delayed, it may affect NEC's competitiveness and reputation.	Utilize collection of information before the enactment of regulations to facilitate an early response
Opportunity (economic value)	Market expansion of circular economy-related businesses continues to progress and new markets continue to open up.	Growing demand for NEC bioplastic products, and AI tools for food loss countermeasures

Waste with High Environmental Impact

NEC engages in the sale and manufacture of information equipment such as servers, routers, and wireless communications equipment. These products are made using a wide variety of chemical substances, and if these substances are not disposed of properly after use, they could have a major impact on the environment. Therefore, in 2001 NEC became a certified processor of industrial waste, a first for the electronics industry, and since then the Company has become committed to collecting and recycling its products. Moreover, when procuring parts necessary for the manufacture of our products, we are mindful, starting from the product design stage, of selecting parts that will be easy to recycle and will not cause environmental damage.

Response to the Issue of Marine Plastics

NEC is working to resolve the issue of marine plastics through its business activities and in-house initiatives. In terms of business activities, we support the development of products that utilize biomaterials as well as microplastic analysis driven by AI. In-house initiatives include reducing PET bottle usage and eliminating plastic bags at company shops.

☞ Development of microplastic analysis technologies
☞ Recycling of home gateway products
☞ NEC regional resource recycling services
☞ NeCycle®, a gorgeous and highly functional cellulose-based biomaterial

Targets and Results

Item	Target	Results
Waste volume	2.0% reduction (compared with fiscal 2019)	661.7% increase (compared with fiscal 2019) Not achieved
Recovery volume of used information communications products	—	Recovered volume 1,698 tons, recycling rate*1 99%, resource-reuse rate*2 91%

Factors behind increase in fiscal 2022 waste emissions: Increase in construction waste associated with streamlining of NEC's business sites (about 271,000 tons); excluding the streamlining of business sites, waste emissions were about 38,000 tons, a reduction of 6.7% compared with fiscal 2019.
Actions: Expand conversions of waste to sellable materials, enhance waste separation, reduce paper use through digitalization, reuse cushioning materials, and administer on-site checks targeting contractors to ensure that outsourced industrial waste goes through an appropriate disposal process

*1 Recycling rate: The ratio of the weight of reused, material-recycled, and thermal-recycled items to the total weight of collected IT devices
*2 Resource-reuse rate: The ratio of the weight of materials that can be used as recycled products (parts reuse) or resources (material recycling) to the total weight of collected IT devices (defined by the Law for the Promotion of Effective Utilization of Resources)

Waste

Breakdown of Waste Generation (Unit: Tons)

	FY2018	FY2019	FY2020	FY2021	FY2022
Total waste	42,593	38,318	38,589	35,886	308,460
General waste	2,251	2,156	2,328	1,823	1,781
Industrial waste	36,611	35,030	31,993	26,772	303,457
Specially controlled industrial waste	3,380	633	2,756	5,755	1,795
International waste	351	499	1,512	1,536	1,427
Recycling	36,686	34,504	36,612	29,057	291,668
Recycling rate	86.1%	90.0%	94.9%	81.0%	94.6%

Chemical Substances

Our Approach

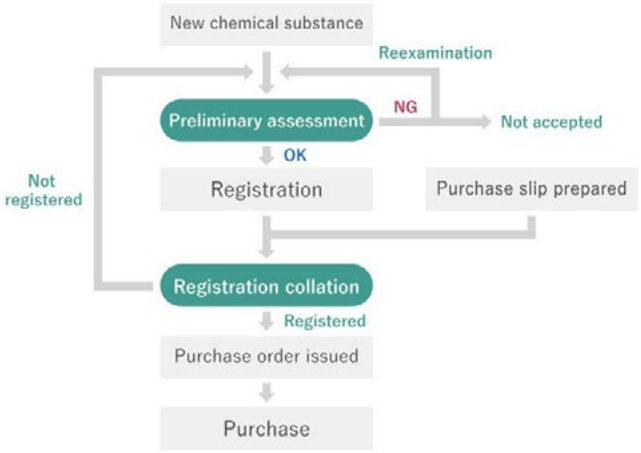
NEC carefully examines the environmental impact and safety of chemical substances in all phases of its operations, from introduction and use to disposal. NEC takes all possible measures to reduce consumption and replace harmful substances with safer ones.

Preliminary Evaluation of Chemical Substances

NEC has been conducting preliminary evaluations to examine environmental and safety aspects carefully when using a new chemical substance for the first time. These preliminary evaluations are a series of strict examinations of physical properties, toxicity levels, handling methods, emergency response measures, recycling methods, environmental impact, and other items related to chemical substances. Only substances that have passed these examinations are allowed to be purchased.

Safety data sheets (SDS) are obtained from manufacturers or prepared independently for all chemical substances used. These are used for reference when making judgments in considering safety countermeasures to apply when using the chemical substances. Manufacturing assessments are also carried out in all manufacturing processes to evaluate environmental and safety aspects of the chemical substances and production facilities.

Preliminary Evaluation Process for Chemical Substances



Conformance to the PRTR System (Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof)

NEC discloses the results of managing the inputs and outputs of chemical substances used by the NEC Group that are subject to the PRTR System (Class I Designated Chemical Substances: 462 substances).

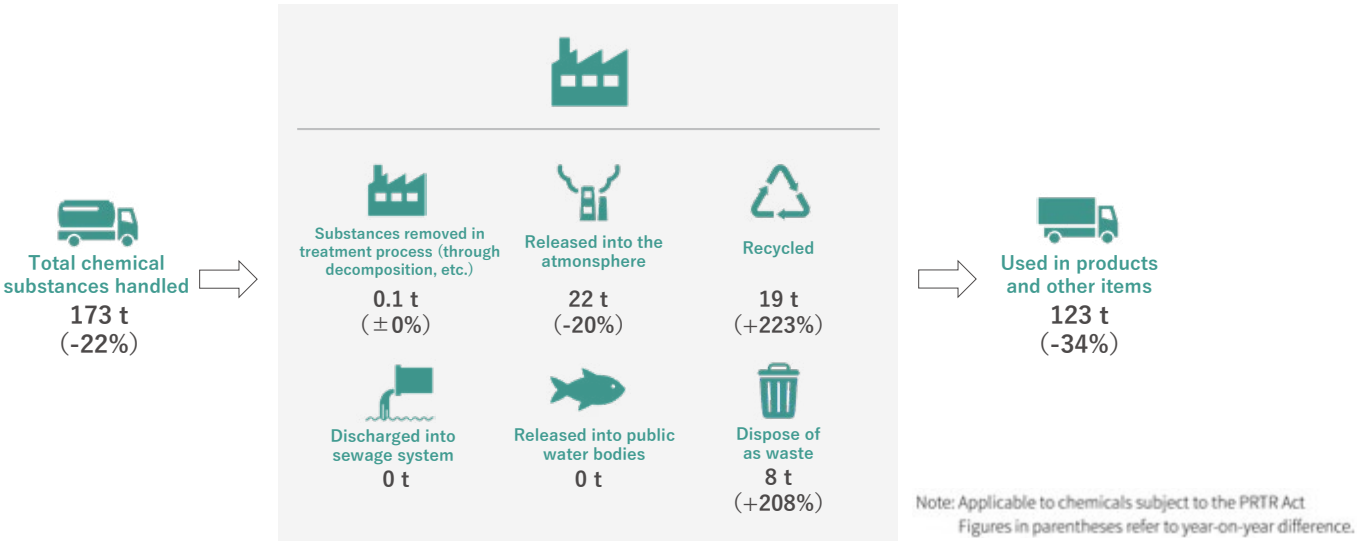
For chemical substances released into the atmosphere and public water bodies (including discharges into sewage systems), NEC has set its own voluntary standards, which are more stringent than the levels required by law, and ensures that these standards are strictly met.

Reduction in Use of Strictly Regulated Chemical Substances

Ozone-depleting substances

The use of all specific chlorofluorocarbons as a cleaning agent in manufacturing processes was discontinued in 1993. By the end of fiscal 2011, efforts to totally discontinue the use of specific chlorofluorocarbons for refrigerant in air conditioners and specific halons used in fire extinguishers achieved a reduction of 96%, almost completely abolishing them from use.

Chemical Substance Balance Control Chart (FY2022)



Note: Applicable to chemicals subject to the PRTR Act
Figures in parentheses refer to year-on-year difference.

Strict Control of Equipment and Parts Containing PCBs

At present, NEC strictly controls disposed-of devices (equipment and parts, including fluorescent light stabilizers) containing polychlorinated biphenyls (PCBs) at its three plants and five Group companies under stringent double and triple measures for preventing leakage.

The Law Concerning Special Measures for Promotion of Proper Treatment of PCB Waste was revised in 2016, changing the processing period set in the basic plan for the disposal of PCBs.

In compliance with the change, NEC is revising its disposal plans to ensure that the waste is processed within the set deadline.

Amount of PCBs held by NEC (as of March 31, 2021)	
High concentration: 29,409 kg	**Low concentration: 71,932 kg**

Scope: NEC Corporation

Targets and Results

Item	Target	Results
Chemical substance procurement volume*1	1% reduction (compared with fiscal 2018)	Achieved
Emissions of volatile organic compounds (VOCs)*2	At least 1% reduction (compared with fiscal 2018)	Achieved

*1 Substances subject to the PRTR System
*2 Substances subject to voluntary action plans in the electrical equipment and electronics industries