



# Emissions into the atmosphere | Air pollution control

GRI 305-7

## Prevention of air pollution

In accordance with the Management Policy Regarding Responsible Care, the NOF Group measures sulfur oxides (SOx), nitrogen oxides (NOx), soot and dust\*<sup>1</sup>, and other substances contained in the exhaust gas from boilers and other combustion equipment to prevent air pollution, and manages operations in strict compliance with national and local environmental standards.

We are currently advancing reduction plans, including energy conversion of AFO boiler\*<sup>2</sup>, which causes SOx emissions, to city gas.

In addition, there have been no cases of violations of laws and regulations related to emissions into the atmosphere.

## Changes in exhaust gas monitoring items

(tons/year)

| Category  |               | 2019     | 2020     | 2021     | 2022     |
|---|---------------|----------|----------|----------|----------|
| NOF   | SOx           | 2.6      | 1.4      | 1.9      | 2.6      |
|   | NOx           | 50.0     | 51.1     | 48.0     | 49.1     |
|   | Soot and dust | 1.4      | 2.2      | 1.1      | 0.9      |
| Domestic Group                                  | SOx           | 5.4      | 2.9      | 3.3      | 4.4      |
|   | NOx           | 51.5     | 52.6     | 49.6     | 50.6     |
|   | Soot and dust | 1.4      | 2.2      | 1.1      | 0.9      |
| NOF Group                                       | SOx           | 6.1      | 4.3      | 4.6      | 6.5      |
|   | NOx           | 55.0     | 57.3     | 55.3     | 55.4     |
|   | Soot and dust | 4.5      | 8.6      | 4.1      | 4.6      |
| <b>Violations of laws and regulations (no.)</b> |               | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> |

\*1 Out of particulate substances arising from operations in plants and other business establishments, those generated in conjunction with the combustion of fuel or any other substance.

\*2 AFO : A Fuel Oil

**PRTR Act-controlled substances\***

The emissions volume of PRTR Act-controlled substances by the Domestic Group in fiscal 2022 was 143.3 tons, a decrease by about 7% from 154.7 tons in the previous fiscal year. As a result, 47% reduction of emissions volume was achieved from the 269 tons in fiscal 2010, the reference year of the Mid-term Target.

PRTR Act-controlled substances with an emissions volume of 10 tons or more are indicated in the table.

Substances high in volume (10 tons or more) discharged into the environment Domestic Group

| Cabinet order No.            | Name            | Emission volume (Tons / year) |
|------------------------------|-----------------|-------------------------------|
| 300                          | Toluene         | 31.9                          |
| 186                          | Dichloromethane | 30.3                          |
| 392                          | Normal hexane   | 18.7                          |
| 128                          | Chloromethane   | 17.7                          |
| 83                           | Cumene          | 16.1                          |
| <b>Total emission volume</b> |                 | <b>143.3</b>                  |

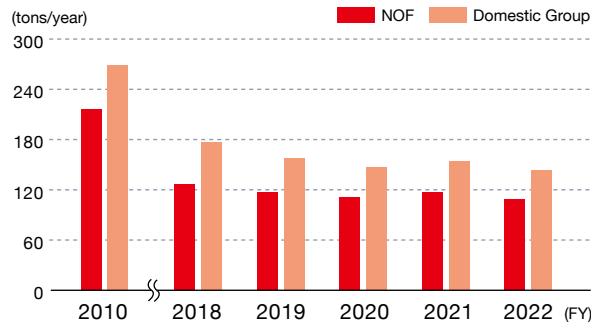
**Measures to reduce emissions of PRTR Act-controlled substances**

As for measures to reduce PRTR Act-controlled substances, we were able to reduce cumene emissions by about four tons from the previous year through full-scale operation of the oil recovery system

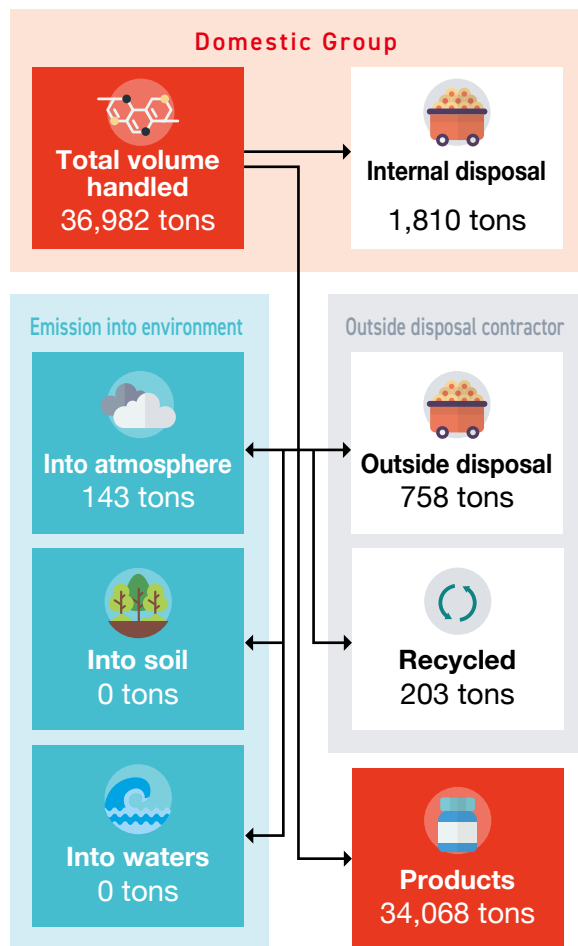
in the wastewater pit installed at the Kinuura Plant in the second half of 2021. At the Amagasaki Plant, the toluene recovery system capacitors were strengthened, resulting in a reduction of about six tons from the previous year. The Daishi Plant was able to reduce emissions of chlorodifluoromethane (R-22) by about one ton from the previous year by upgrading refrigerant piping and strengthening management. Nippon Koki Co., Ltd. reduced emissions of the cleaning solvent tetrachloroethylene by about 1.3 tons from the previous year by consolidating operations using tetrachloroethylene, reducing the atmospheric emissions that had occurred during batch changes.

In fiscal 2023, tetrahydrofuran will be newly added due to a revision of laws and regulations. In FY2022, emissions were about 10 tons. We plan to consider measures to reduce this substance as soon as possible.

Changes in emissions of PRTR Act-controlled substances



Balance of emissions of PRTR Act-controlled substances in fiscal 2022 Domestic Group



\* Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof. In this report, the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof is referred to as the PRTR Act.