Management and Reduction Activities for Environment-impacting Substances

Local Environmental Conservation Activities

In order to achieve thoroughness in environmental conservation, we have established a self-imposed Aisin Environmental Standard, which specifies air- and water-quality standards that are more stringent than those prescribed by law, and we are implementing activities to reduce environment-impacting substances based on this.

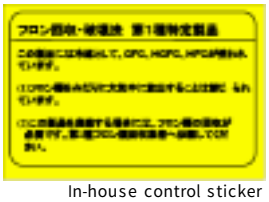
Prevention of Air Pollution

We have installed a state-of-the-art incineration facility with dioxin-eliminating equipment. To obtain understanding for the rationale behind this facility among residents living within a four-kilometer radius, before installation we held explanatory meetings with delegates from the town. For exhaust emissions, we entered into an agreement specifying stringent values with the city of Nishio, and introduced catalytic equipment (for breakdown of dioxins) as well as urea-addition equipment (for breakdown of nitrogen oxides) in order to achieve strict compliance with this agreement.

Incinerator

Creation of a System for Recovering CFCs from Used Equipment

CFCs are used as a coolant in various types of cooling equipment in plant processes, in commercial-use air conditioners, in commercial-use refrigerators and freezers in employee dining facilities, and elsewhere. When such equipment is discarded, we turn it over to licensed CFC-recovery and salvaging companies for reliable disposal that prevents the release of the CFCs contained into the atmosphere.



In-house control sticker

CFC-recovery equipment

Prevention of Water Pollution

We adopted continual measuring apparatus to automatically measure and constantly monitor the concentrations of the eutrophic substances nitrogen and phosphorus in wastewater.

Fully automatic continual measuring apparatus for nitrogen and phosphorus

Storage of Equipment Containing Polychlorinated Biphenyls

Because facilities do not currently exist that are capable of proper disposal of high-pressure condensers and fluorescent-light ballasts that use polychlorinated biphenyls (PCBs) as insulating oil, we carry out strictly controlled storage to prevent leakage or loss.

PCB-containing condensers in storage

PCB storage facility

Groundwater Purification

Trichloroethylene came to be widely used from around the mid-1950s as a superior cleaning agent, but was designated as a toxic substance in 1989, and we completely abolished its use at Aisin in 1992. We have also completed work on the groundwater downstream-barrier wells, which were installed between FY1997 and FY1998 within our plants and prevent water escaping downstream, as well as water-pump aeration-cleaning equipment※1, and are continuing cleanup operations using this equipment. We report the results to the government at regular intervals. Three plants have yet to meet the environmental standards for this substance, but we will continue with our purification operations. We are making efforts to rapidly establish appropriate purification technology for the three plants in order to enable the environmental-standard levels to be reached quickly.

■ **Trichloroethylene Investigation Results During FY2003**
(Environmental standard: 0.03mg/ℓ)

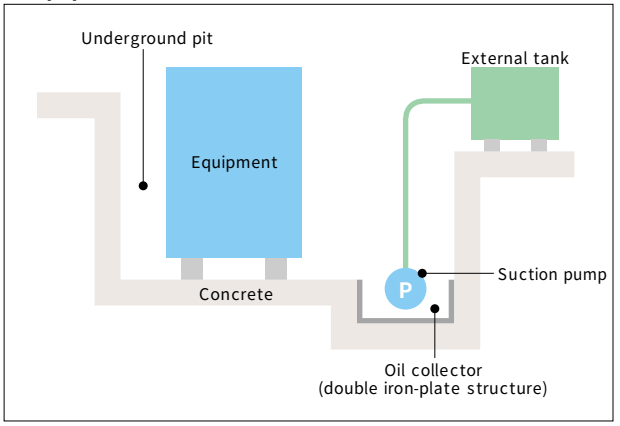
Plant	History of use	※2 Groundwater level
Kariya	Yes	0.32mg/ℓ
Shintoyo	Yes	0.31mg/ℓ
Nishio	Yes	0.07mg/ℓ
Ogawa	Yes	Not detected
Handa	NO	————
Shinkawa	Yes	Not detected
Anjo	Yes	Not detected

・Continuous monitoring is carried out at all plants

Prevention of Soil Pollution

To prevent pollution of the soil, in FY2002 the piping from underground tanks and the like was changed from buried to aboveground piping, thereby enabling early detection and response for soil pollution due to oils or other substances. In FY2003 we surveyed the status of underground equipment pits. This served as a basis for investigating response methods permitting automatic take-up of oil and transfer to external tanks in the unlikely event of leakage, and we will to implement this progressively starting in FY2004.

■ **Equipment Measures**



Noise Prevention

At the Shintoyo Plant, residences are located close to the plant in some sections, and so we have installed sound-insulating boxes for stamping, welding, and other equipment in the plant, as well as fitting assembly-process equipment with sound-damping devices and smoothing the paths for trucks and forklifts to reduce noise. We have also implementing such noise-reduction measures as replacing rooftop air-conditioning cooling towers and other machinery with low-noise equipment. In FY2003 we erected sound-barrier walls to further enhance quietness.

Installed sound-insulating box for stamping machinery (double structure)

Sound-barrier wall

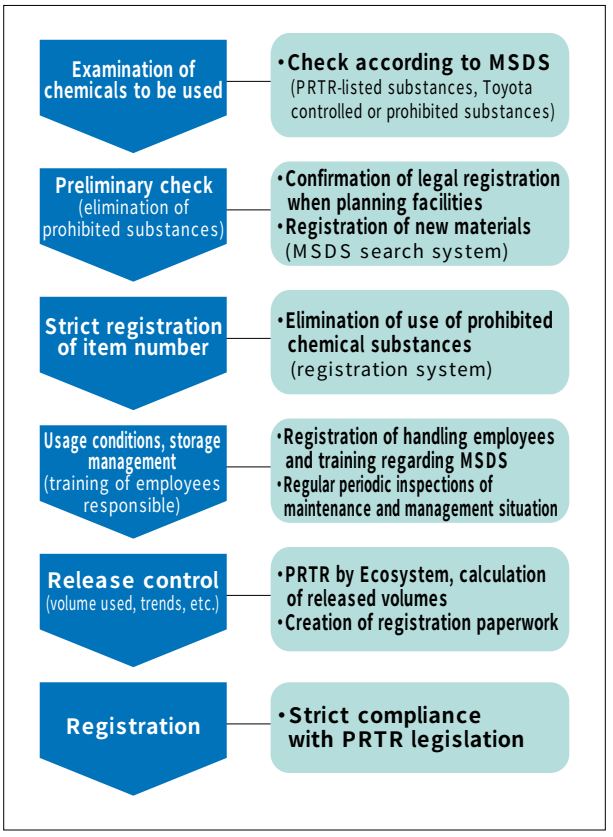
※1. Aeration cleaning・・・Air is blown up through a mist of groundwater, and trichloroethylene is vaporized and removed, then absorbed by activated charcoal.
※2. Groundwater level・・・Annual mean collected-water concentrations from within plant grounds.

Management of Chemical Substances

Chemicals are a necessary part of our everyday life, but growing attention is being focused on hormone disruptors, chemicals that damage the ozone layer, and the environmental issues of accidents and leakage incidents. To manage chemical substances at Aisin, we have implemented a ※1PRTR network system at each of our plants and carry out management of the amounts of PRTR-target substances handled and discharged. Accuracy has been enhanced by these moves. Additionally, when new chemicals are introduced at Aisin, we assess their impact and register the people who are going to be handling them. Staff undergo ※2MSDS and PRTR training and are taught to store and manage chemicals with strict adherence to regulations as part of thorough steps to prevent accidents. We are also promoting activities to reduce environment-impacting substances, including eliminating chlorine-containing lubricating oils.

Reduction in Use of Environment-impacting Substances

Aisin eliminated the use of trichloroethylene in FY1993, and of specified CFCs in FY1994, and is continuing to work toward reducing the amount and number of environment-impacting chemicals it uses. Based on the Third Environmental Action Plan that we created in FY2001, we are rolling out company-wide efforts to reduce the use of particularly damaging chemical substances from the development through to the utilization stages.



■Organization of Environment-impacting Substances Reduction Activities, Main Results, and Details of Considerations During FY2002

Environment-impacting Substance Contact Group

Team responsible for removal of chlorine from plastic processing oil

- Elimination of chlorine from general stamping oil: Completed on 30 of 30 lines
- Elimination of chlorine from FB stamping oil: Completed on 5 of 14 lines

Team responsible for removal of chlorine from cutting oil

- Elimination of chlorine from cutting oil: 100% complete

Product team

- Elimination of lead from ECUs for 4WD vehicles: Complete
- Elimination of lead from rubber products: Complete
- Promotion of substitutes for hexavalent chromium in progress

Toluene and xylene production team

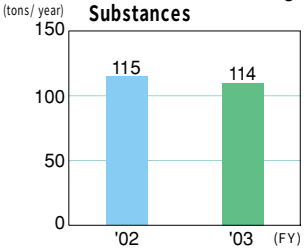
- Examination of substitutes for ECU coating agents at the Handa Electronics Plant in progress

Note: The toluene and xylene non-production team achieved its target last fiscal year and was disbanded.

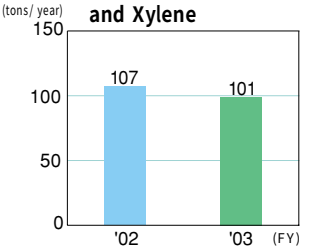
PRTR-target Substances (Excluding those in company-wide quantities of 100kg per year or less)

During FY2003, Aisin handled 657 tons of 40 PRTR-target chemicals, and released 114 tons of such substances. Some 98% of the substances released were to the atmosphere, with the remaining 2% to water. As of FY2003 we have already reached the targets set forth in our Third Environmental Action Plan (emissions of PRTR-target substances: 115 tons per year; emissions of toluene, xylene, etc. : 101 tons per year).

■Emissions of PRTR-target Substances



■Emissions of Toluene and Xylene



※1. PRTR・・・Pollutant Release and Transfer Register
※2. MSDS・・・Material Safety Data Sheet