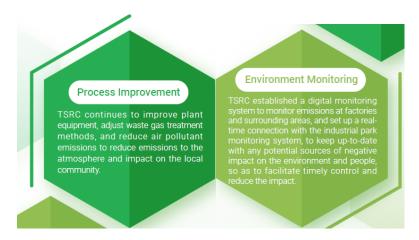


## Status of Environmental Management

TSRC takes its social responsibility for environmental protection seriously, and has adopted high standards of environmental management at all of its operating locations, including air pollution, waste/scraps, soil and groundwater contamination, and other substances that may have an impact on the environment. TSRC continues to promote energy conservation and waste reduction, air pollution prevention, and wastewater reduction and recycling through ISO 14001 Environmental Management Systems. We periodically conduct comprehensive reviews, and use technology to monitor factories and surrounding areas, to comply with regulations. TSRC's environmental management strategy focuses on "process improvement" and "environment monitoring", in which the global business headquarters is responsible for environment management and supervision and for formulating related plans while factories are responsible for implementation.



TSRC Kaohsiung Factory, Gangshan Factory, Shen Hua Chemical, Nantong Industries, TSRC-UBE, Shanghai Industries, and TSRC Specialty Materials LLC have all obtained ISO-14001 Environmental Management System certification.

Site	ISO 14001 Certification validity period
Kaohsiung Factory	2024/02/06-2027/02/05
Gangshan Factory	2024/02/06-2027/02/05
Shen Hua Chemical	2023/06/05-2026/06/04
Nantong Industries	2024/08/15-2027/08/14
TSRC-UBE	2024/08/03-2027/08/02
Shanghai Industries	2023/12/10-2026/12/09
TSRC Specialty Materials LLC	2024/04/12-2027/04/11



## 1. Air Pollution Prevention and Management

TSRC will strengthen the management of volatile organic compounds (VOCs) at each site to prevent and manage air pollution, and promoted the following measures at each plant in 2024:

TSRC Factories		Measures Implemented in 2024
Kaohsiung Factory	Equipment Upgrade	Completed replacement of cock valves with low leakage types. Completed replacement of pipeline flanges, replacing older pad flanges with new ones during annual maintenance and leak repairs. Completed replacement of closed sampling system. Completed adoption of dry connectors for unloading tankers. Completed installation of an exhaust gas recycling system which diverts part of the exhaust gas to the boiler to recycle heat energy and reduce emissions.
	Regular Inspections	Regularly inspected equipment components, and immediately repaired components found to have leakages.
Gangshan Factory	Equipment Upgrade	Completed replacement of exhaust gas extraction equipment in the R&D lab.     Completed changing size of the extruder exhaust hood at the manufacturing site to more effectively collect VOCs generated from the cleaning of the pelletizer and extrusion dies.
	Regular Inspections	<ul> <li>Conducted annual maintenance, filter replacements, and inspected scrubbers to ensure their removal efficiency.</li> <li>Total suspended particulates (TSP) generated during dosing operations and suction areas at the manufacturing site are collected through closed or air hoods and processed in bagged dust collectors, which are regularly cleaned each week to ensure that dust collectors are functioning properly, superior to legal requirements where collectors are only required to be replaced once every three years.</li> </ul>
	Equipment Upgrade	Replacement of old gaskets and other measures to reduce non-point source emissions.
Shen Hua Chemical	Regular Inspections	Regularly carried out Leak Detection and Repair (LDAR) inspections and timely repaired any leaks found. Regularly inspected and cleaned flame arresters for waste gas collection pipes, preventing abnormal substances from affecting the collection of waste gases.
	Purchase of New Equipment	Added new activated carbon adsorption devices to treat waste gas escaping from the drying bed.     Installed new mobile suction device to collect waste gas generated from the inspection and maintenance process, and deliver this gas to the regenerative thermal oxidizer (RTO) for treatment, in order to reduce the emission of non-point source.     Established an online monitoring system to monitor air pollutant emissions in real time.
	Process Improvement	<ul> <li>Used mobile suction equipment to collect and transfer waste gas from laboratory ovens, non-point source emissions from mixing tanks, and from operations which generate fugitive VOC emissions to a regenerative thermal oxidizer (RTO) for treatment, reducing the amount of waste gas escaping into the atmosphere.</li> </ul>
Nantong Industries	Regular Inspections	Regularly conducted Leak Detection and Repair (LDAR) operations, and timely repaired leakages. Regularly maintained the online monitoring system to ensure that monitoring instruments remain sensitive and effective. Regularly disassembled and cleaned imported RTO filters and flame arresters to prevent abnormal substances from affecting waste gas collection. Regular maintenance, filter replacement and inspection of scrubbers to ensure their removal efficiency.
	Purchase of New Equipment	An isolation valve has been installed below the fire arrester for solvent tanks, preventing fugitive VOC emissions during repair operations.
	Process Improvement	<ul> <li>Collected VOC emissions from laboratory oven waste gases or tanker sampling operations, and used closed sampling equipment, dry connectors, and gas collecting filters to deliver gas to the RTO for treatment, reducing the amount of fugitive waste gases escaping into the environment.</li> <li>Installed water cooling pipes for styrene storage tanks, ensuring that styrene tanks stay below 15°C year-round, reducing the amount of fugitive VOC emissions resulting from increased temperatures in the summer.</li> </ul>

TSRC Factories		Measures Implemented in 2024			
	Equipment Upgrade	Optimized the sealing boxes and covers for drying beds, effectively reducing fugitive VOC emissions from corrosion or badly-fitted covers.			
	Regular Inspections	Regularly conducted Leak Detection and Repair (LDAR) operations, and timely repaired leakages. Regularly maintained the online monitoring system to ensure that monitoring instruments remain sensitive and effective. Regularly disassembled and cleaned imported RTO filters and flame arresters to prevent abnormal substances from affecting waste gas collection. Regular maintenance, filter replacement and inspection of scrubbers to ensure their removal efficiency.			
TSRC-UBE	Purchase of New Equipment	Began using a 70,000m³/h regenerative thermal oxidizer (RTO) to improve process waste gas collection capabilities. LEL online monitoring sensors were installed on the RTO intake and connecting pipes, preventing highly-concentrated VOC emissions from entering the oxidizer. Also added activated carbon absorption devices to process residual waste gases when removing abnormal substances or conducting annual maintenance repairs.  Installed new mobile suction device to collect waste gas generated from the inspection and maintenance process, and deliver this gas to the regenerative thermal oxidizer (RTO) for treatment, in order to reduce the emission of non-point source.			
	Process Improvement	Enforced stricter monitoring and management requirements to reduce high sampling frequency, preventing large amounts of volatile gases from entering activated carbon absorption devices all at the same time during sampling, which may result in the risk of emissions limits at the activated carbon device intake being exceeded. These measures also allowed the use life of activated carbon to be extended, reducing the amount of waste activated carbon generated.			
	Equipment Upgrade	Replaced activated carbon absorption devices and increased activated carbon capacity to effectively reduce VOCs generated during the co-extrusion process.			
Shanghai Industries	Regular Inspections	Annual maintenance and filter replacement is carried out for waste gas treatment equipment each year, and VOC values are regularly monitored.			
	Purchase of New Equipment	Gas hoods were installed above the vibrating screens on the co-extrusion production line, reducing fugitive VOC emissions.			
TSRC (Vietnam) Co., Ltd.	Regular Inspections	Introduced scrubbers in 2019 to reduce fugitive VOC emissions. TSRC also regularly monitors VOCs values every quarter to monitor if scrubbers are operating efficiently.			
TSRC Specialty Materials LLC	Process Improvement				



TSRC continues to upgrade equipment and optimize processes, reduces air pollutants released in the production process, and hazards to the environment and health.



In 2024, 3 violations of the Air Pollution Prevention Act occurred at TSRC's Kaohsiung Factory. TSRC immediately initiated remedial measures to minimize the impact on the environment and on residents of nearby communities.

tory Found ` Violation	Regulation Violated	Reason for Fine	Penalty Amount (NTD)	Solution or Improvement Plan
TSRC Gachsiung Factory Arr Parathe A Co	Article 20, Paragraph 1 of the Air Pollution Control Act	Involved the other synthetic rubber manufacturing process (M03) at the Kaohsiung Factory. One equipment component for this process released emissions which tested above the 2,000 ppm limit stipulated in the Kaohsiung City Volatile Organic Compound Control and Emissions Standards for Equipment Components.	225,000	<ul> <li>The control valve axis was classified as being at high risk of releasing emissions, and inspection frequency was increased: From once per quarter to once every two weeks (frequency adjusted based on detected emissions values during tests). VOC limits: Reduced from 200 to 100ppm. If lim are exceeded, the valve would be subject to additional tracking and improvement measures, and a expanded control valve checklist would be provided for employees to carry out stricter inspection.</li> <li>Compiled a list of items that employees working with equipment components should test and look out for, and included this list as part of on-the-job training (OJT), in order to improve employee inspection standards.</li> <li>Shift leader on duty for each factory area is required to carry out an equipment component inspection according to a checklist (humber of regular inspections and inspection results). They at to compile, analyze, and report back inspection data.</li> <li>Changed the original weekly random inspection system to one where dedicated employees are appointed to carry out inspections of items deemed as having high emissions risk based on inspection data.</li> </ul>
	Article 23, Paragraph 2 of the Air Pollution Control Act	A functional inspection of the continuous automatic monitoring facility installed pursuant to regulations on the exhaust vent (P001) for the cogeneration boiler process (M01) at the Kaohsiung Factory showed that the NO2/NO converter was functioning at 8701% efficiency, failing to meet the functional standards stipulated in Appendix 2 (7) of Article 14 of the Management Regulations for Continuous Automatic Monitoring Facilities for Stationary Air Pollution Source (conversion efficiency must be greater than 90%)	225,000	- Checking for errors with the gas mix must be included in calculations as part of the conversion rate self-calibration standards. Maintenance contracts will stipulate a minimum threshold of 95% Adopted monthly calibrations of the conversion rate for mixed compound gases Employees entering roles where they are responsible for CEMS equipment operations must under OJT training on the Management Regulations for Continuous Automatic Monitoring Facilities for Stationary Air Pollution Source (including appendix)
	Article 8, Paragraph 3 of the Air Pollution Control Act	The Kaohsiung Factory has previously obtained approval for emitting a specified amount of stationary source pollutant emissions. This approval allowed for emissions of violatile organic compounds of 162,212 kglyear, but in a random inspection conducted by the Environmental Protection Bureau of the Kaohsiung City Government 10204, the volatile organic compound emissions for 2011 was actually 169,758 kg/year, exceeding the approved annual emissions amount by 7548 kg/year.	750,000	Confirm production and emissions volume each quarter, and assign dedicated HSE employees to control and manage the process.     Purchase quota for volatile organic compound emissions.

## 2. Ecosystem Preservation and Other Pollution Prevention

TSRC' s production sites and offices are not located in protected and restored habitats, nor in any of the 6 protected areas, biologically diverse areas, or genetically diverse areas specified by the International Union for Conservation of Nature (IUCN). None of the species in the industrial park are listed on the "Red List" of IUCN or "National List of Protected Species in Taiwan". TSRC Group has set up maintenance and management policies for a certain percentage of green space and vegetation at each of its plants, provided that factory safety and normal production processes are not jeopardized.

Regarding the prevention of land and groundwater pollution, the three subsidiaries of Shen Hua Chemical, TSRC-UBE, and Nantong Industries conduct regular soil and groundwater monitoring inventories in accordance with the "HJ 1209-2021 Technical Guidelines of Soil and Groundwater Self-Monitoring for Industrial Enterprises" of China every year. The results of the inspections in 2024 showed no abnormalities, and there were no leaks or contamination incidents. In accordance with



the Soil and Groundwater Pollution Remediation Act, the Kaohsiung Factory conducts groundwater monitoring once a year, and in 2024, the test results showed no anomalies, and no contamination occurred. In addition, in accordance with the "Regulations for the Prevention of Pollution of Groundwater by Storage Systems and the Installation of Monitoring Equipment", soil gas monitoring wells are installed in the diesel fuel storage tanks in the plant area, and monitoring and testing are conducted on a regular basis. The TSRC Specialty Materials LLC plant is located in the Dow Industrial Park and the groundwater is monitored by Dow.

TSRC Factories	2023-2024 Accomplishments
Kaohsiung Factory Gangshan Factory	In addition to the daily maintenance of vegetation in the factory, we continue to take care of the vegetation on site through an external professional team. Tree species on the factory grounds include yellow palm, longan trees, mango trees, and Autumn Maple Tree. The fruits of these tree species are an important food source for birds. Through appropriate pruning, the ripe fruits are retained as a food source for birds and other animals. Emphasized the role of plants in carbon sequestration and air purification to provide a habitat for birds and other species.
Shen Hua Chemical	When Shen Hua built its factory in 1998, it planted a variety of plants during the same period and maintains the vegetation's normal growth every year. However, Shen Hua plant to relocate its factory in the next two years in line with national policy and will continue to evaluate the possible ways it can relocate these plants with an external professional company, so as to ensure that the species of the trees can be retained. A professional company will be commissioned to move the tree species that are suitable for relocation to the new factory site. For tree species that are not suitable for relocation, the trees will be retained on the original site and handed over to the relevant government units for follow-up maintenance and care.  Conducted online monitoring of rainwater and industrial wastewater in the factory area to ensure that discharge standards are met and to minimize the impact on plants onsite.
Nantong Industries TSRC-UBE	<ul> <li>In addition to daily maintenance, we maintain the green plants and lawns in the factory through external professional green plant maintenance companies to ensure the healthy growth of green plants.</li> <li>Conducted online monitoring of rainwater and industrial wastewater in the plant area to ensure that the discharge standards are met and that the existing plants and lawns are not affected.</li> </ul>
Shanghai Industries	<ul> <li>In addition to maintaining a number of plants in the factory's planting area, we have also hired external professional companies to prune and maintain the various plants at our factory site, ensuring their healthy growth.</li> <li>Evaluated the engineering operations in the factory area, and if the survival of plants is affected, transplant the plants to suitable locations according to each plant's characteristics and transplantation requirements.</li> <li>Reduced noise and avoided disturbing bird habitat in the factory area.</li> <li>Regularly dredged and cleaned out rainwater drainage pipes to ensure that water can be effectively drained during the rainy system and prevent lawns from flooding, ensuring the healthy growth of the lawn.</li> </ul>
TSRC (Vietnam) Co., Ltd.	• In addition to the factory's own general maintenance of plants, the factory's greenery and lawns are taken care of by a professional greening maintenance unit to protect the natural growth of green areas and plant species, as well as the habitat of birds.