

2024

ENVIRONMENTAL,
SOCIAL AND
GOVERNANCE REPORT



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ADDRESS BY THE CHAIRMAN



We will resolutely win the three major battles of work safety, turning losses into profits and high-quality development, and strive to build a "domestic leading and world class" energy, chemical and new materials company.

In 2024, the global economy was recovering slowly, the petrochemical industry was facing the dual challenges of weak market demand and oversupply, the petroleum was more prominent as a feedstock under the new energy system, and the low carbon and intelligence became important development trends in the petrochemical industry. The global petrochemical industry giants actively adjusted their strategic directions to adapt to the changes in the global energy market and cope with the challenges of climate change. In the face of new opportunities and challenges, the Company earnestly studied and implemented the spirit of the Third Plenary Session of the 20th CPC Central Committee and the spirit of the Central Economic Working Conference, set out on a new course and earnestly fulfilled its environmental, social and corporate governance responsibilities in accordance with the development idea of "shifting the focus from oil refining to chemicals, chemicals to materials, materials to high-end ones, and petrochemical park to eco-friendly park", and achieved staged victories in the battles of work safety, turning losses into profits and high-quality development, thus weaving a picture of a thriving year.

We deeply practiced ESG concepts and promoted sustainable development. The Company has always regarded the practice of ESG as a proactive choice and the ESG risk management as part of its development strategy. With value-driven leadership, market orientation, innovation-driven growth, talent-driven enterprise, green and low-carbon practices, and integrated development as the guiding principles, the Company has carried out in-depth ESG risk identification, analysis and assessment, continuously optimized management and risk control, and transformed high-quality management innovations into concrete practices to promote the Company's high-quality development. In 2024, the Company's ESG practice was awarded Class BBB in the rating of MSCI, an authoritative international ESG rating agency, and Class A in the rating of Wind, a well-known domestic rating agency, and ranked the top among domestic companies in the same industry evaluated. The Company's in-depth practice in the field of ESG was selected as one of the best practice cases of sustainable development of listed companies in China in 2024.

We insisted on taking safety as the premise and foundation of all work. The Company enhanced the level of intrinsic safety throughout the whole process of production and operation, further implemented the safety management concepts and requirements of “rules for every matter, accountability in all areas, oversight at all times, safety ensured by everyone” on the basis of “being strict to the end”, strictly implemented the “three managements and three musts” and the localized grid management responsibility, issued and tried out the “HSE penalty order, HSE deadline rectification order”, carried out the work safety improvement year campaign and the “100-day safety without accidents” campaign in a deep-going way, deepened source governance, system governance and comprehensive governance, and fully pushed forward risk control and hazard investigation and rectification. As a result, the production abnormalities reduced by 25% year-on-year, and the total flare gas emissions hit a record low, realizing the goal of “zero injury, zero pollution and zero accident”.

We strived to make green the bright background color for high-quality development. The Company has earnestly laid out and practiced the strategy of green and low-carbon transformation, actively responded to global challenges such as energy security, environmental pollution and climate change, resolutely shut down and eliminated outdated production facilities that was highly polluting and energy-consuming, and continued to push forward the energy saving through management, projects and technologies, with emphasis on the control of intermediate utilization of energy. The clean and efficiency improvement project of the thermal power unit is being implemented, and the total annual carbon emissions will be significantly reduced after it is put into operation. The Company strengthened the whole process control and deep treatment of sewage and waste gas, and fully pushed forward the construction of ecological and environmental protection projects. The Company focused on the combination of “increasing income and reducing expenditure”, vigorously developed the circular economy, and the standard make-up rate of circulating water fell to a record low. In 2024, the Company’s VOCs alarms decreased by 50% year-on-year, and the concentration of VOCs at the plant boundary decreased by 9.90% year-on-year, which was at a new record low, and it was awarded the titles of “Advanced Unit of Environmental Protection” and Class A “Zero Waste Plant” by SINOPEC. From 2010 to now, the Company continued to maintain the honorary title of “China’s Environmentally Friendly Enterprise”.

We actively cultivated and developed new quality productivity. The Company accelerated the construction of high-quality development projects and the layout of industrial chain, speeded up the construction of digital intelligence, built intelligent plant, and accelerated the development of carbon fiber and its composite material industry, striving for the first place in developing the new quality productivity. The Company comprehensively carried out the construction of “one cloud, one lake and one plant”, the production patrol inspection entered the digital era, and Class AAA digital production and operation control capability passed the certification and evaluation of “integration of two digitizations” management system. The Company has been focusing on efficiency creation in the two major segments of refining and chemical, optimizing the production and operation of facilities, crude oil procurement strategy, refined product structure and chemical industry chain structure, enlarging the total amount of gasoline and jet fuel, and exploring the market development of other high-value-added oils. We have strengthened the core industry of medium- and high-end new

materials such as carbon fiber, and strengthened the medium- and high-end new material industry chain with polyolefin, elastomer and C5 downstream fine chemical new materials as breakthroughs and extensions. Technological innovation has brought about a steady improvement in product competitiveness, the Company’s medical polypropylene special materials were identified as Shanghai high-tech achievement transformation project (Class B), and the Company’s carbon fiber products were successfully applied to the world’s longest onshore wind turbine blade of 131m, the thematic commemorative medals of the 2024 World Design Capital Conference and other application scenarios.

We kept in mind and actively fulfilled our social responsibilities. The Company attached importance to staff development, taking human resource construction as a key task to support business development, actively innovating talent training mode, and creating new employees rainbow training camp, employee innovation studio and other growth platforms. Focusing on serving the staff and masses, the Company has set up and completed ten projects of “I do practical things for the masses”. The Company has been carrying out research on employee mindset index for 25 consecutive years, and the overall mindset of employees is stable and improving, with the total mindset index hitting a record high in 2024. It is our mission to develop with the community, and the “Starry Sky” volunteer team continued to organize and participate in volunteer activities. In 2024, the Company held a total of 44 “Public Open Day” activities. The Company launched the “Transformation and Upgrading” strategic cooperation with the Shanghai Jinshan District Government, answering the same questions and drawing a new blueprint for the green and low-carbon transformation & development of the petrochemical industry. The Company steadily and deeply promoted the helping and supporting activities, actively carried out educational and consumption support activities, subscribed for agricultural products actively, and invited representatives of teachers and students from Bange County, Naqu, Tibet to Shanghai for study and training, helping to revitalize the countryside with practical actions.

2025 is the last year of the “14th Five-Year Plan” and the year of planning and layout of the “15th Five-Year Plan”. The Company will rise to the challenge, anchor the vision of building a “Centennial Jinshan” and the goal of building a “New Jinshan” and restationing at the head, and grasp the work safety with the sense of responsibility of “never slacking off”, and give full play to the competitive advantages of the integrated refining and chemical industry chain, adhere to the consideration of low cost and differentiation, and pay equal attention to scale and refinement, adhere to the transformation and upgrading of traditional industries and accelerate the development of strategic emerging industries, comprehensively promote the transformation of digital intelligence, comprehensively carry out technological transformation and quality upgrading, and further optimize the structure of the refining and chemical products, so as to make new achievements in the journey of holding steady the energy rice bowl, and write a new chapter of the Chinese style of modernization of the petrochemical industry.

Guo Xiaojun

Chairman of the Board

March 2025

ABOUT US

Company profile

SINOPEC Shanghai Petrochemical Co., Ltd. (hereinafter referred to as “SPC” or the “Company”), a holding subsidiary of China Petroleum & Chemical Corporation, is located in Jinshan District, Shanghai, and is one of China’s major refining-chemical integrated petrochemical companies, principally engaged in processing the crude oil into refinery products and chemical products.

New highlights of development in 2024

In 2024, from the birth of new materials and new products to the improvement of management quality and efficiency, from the application of new processes to the open-up of new positions, the Company, through continuous innovation and breakthrough, forged ahead valiantly and persistently towards the goal of building a “domestic leading and world class” energy, chemical and new materials company!

中国石化上海石油化工股份有限公司
SINOPEC SHANGHAI PETROCHEMICAL CO., LTD

01 New technology

The Company has resolved the technical bottlenecks through localization & renovation of CRCs system



02 New product

The Company's new low-density polyethylene product GB030D, specifically engineered for sterile blow-fill-seal applications, has been successfully commercialized, demonstrating the potential for a wide range of applications



03 New application

The Company's 12mm large tow carbon fiber composite rebars have been successfully used in the heavy-duty boom project of Shanghai Midea Global Innovation Park



04 New length

The Company's 48K large tow carbon fiber material specially designed for wind power applications has been used in the production of the world's longest 131-meter onshore wind turbine blade



05 New pipeline

The Company has opened a new route for landing of second transit crude oil by adding a new crude oil pipeline, upgrading the capacity of crude oil storage tanks and expanding the diameter of crude oil unloading pipelines.





ESG HONORS

- ◎ The Company's MSCI ESG rating was upgraded to Class BBB, and Wind ESG rating was upgraded to Class A.
- ◎ The Company was honored as one of the Wind Top 100 Listed Companies in China in terms of ESG Best Practices.
- ◎ The Company won the Class 5A evaluation of the secretary of the Board of Directors of China Association of Listed Companies.
- ◎ The Company's project has been selected as the best practice case in sustainable development for listed companies in 2024.
- ◎ The green lightweight EPP (polypropylene foam) special material developed by the Company in cooperation with Sinopec Beijing Research Institute of Chemical Industry won New Material Professional Award in the 24th China International Industry Fair (CIIF).
- ◎ The Company won the second group prize of the 2024 National Petroleum and Petrochemical System Ethylene Plant Operator Skills Competition, the second prize of the Emergency Disposal Team Project, and 1 individual silver prize and 2 individual bronze prizes.
- ◎ The Company won two first prizes and one second prize in the 2024 National Polyolefin Industry Vocational Skills Competition.
- ◎ The Company's Advanced Materials Innovation Research Institute was awarded the Laboratory Accreditation Certificate by the China National Accreditation Committee for Conformity Assessment (CNAS), marking that the Company's testing technology capability and management level have been recognized at the national level.
- ◎ The Company was honored with the First Prize of the 2022-2023 National Outstanding Achievements in Corporate Culture.
- ◎ The Company was honored with the title of Shanghai "Benchmarking Enterprise of Observing Contract and Valuing Credit".
- ◎ The Company was honored with the "2023-2024 Information Disclosure Class A Evaluation" by SSE, "ESG Gold Quality Award" by Shanghai Securities News, and "2024 Yangtze River Delta Outstanding Listed Company Sustainable Development Report Award" by Golden Bee Think Tank.
- ◎ The Company's medical polypropylene syringe special material project was recognized as Shanghai High-tech Achievement Transformation Project (Class B).
- ◎ The Company was awarded the 2022-2023 Energy Conservation and Emission Reduction Advanced Collective by Shanghai Energy Conservation Association.
- ◎ The Company's own trademark was awarded the "2022-2024 Shanghai Good Trademark".
- ◎ The Company won the 2024 Shanghai Employee Rationalization Suggestion, Employee Advanced Operation Method Innovation Award.
- ◎ The Company won the first, second and third prizes of 2024 Shanghai Enterprise Management Modernization Innovation Achievements.
- ◎ The Company won the Silver Award in the 2023 Shanghai Industrial Youth Innovation Competition.
- ◎ The Company was awarded the honorary title of "Winning Unit of Shanghai Industrial Producer Price Statistical Survey" in 2023.
- ◎ The Company was awarded the honorary title of "Excellent Enterprise in Shanghai Purchasing Manager Survey" in 2023.
- ◎ The Company was awarded the Excellent Organization Prize of the 2023 "Ankang Cup" Shanghai Employees' Work Safety Knowledge and Skill Competition.
- ◎ The Company won the second group prize, the first individual prize and the third individual prize in the 2024 Shanghai Occupational Disease Prevention and Control Law Publicity Week and the First "Occupational Health Talent" Skill Competition.

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CORPORATE GOVERNANCE

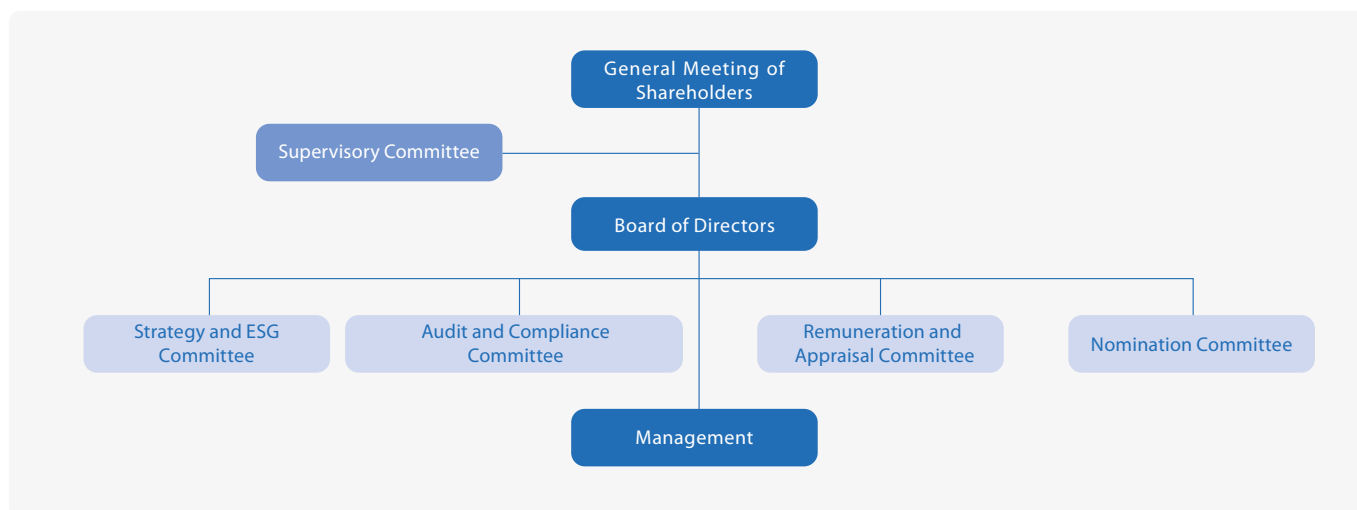
The Company integrated the concept of sustainable development into the corporate development strategy and the whole process of operation, continuously improving corporate governance. The Company actively promoted internal marketization management and established effective incentive and constraint mechanisms. The Company focused on safeguarding the legitimate rights and interests of investors, communities, customers, employees and other stakeholders, and improved the long-term mechanism of operating in compliance with the law. The Company relied closely on scientific and technological innovation and digital and intelligent transformation to build future-oriented core competitiveness.

06	Governance structure
08	Assessment of the significance of the topics
09	Stakeholder communication
11	Development strategy
12	ESG risk management
14	Integrity and compliance
16	Scientific and technological innovation
18	Digital and intelligent transformation



Governance structure

The Company strictly complied with the Articles of Association and the domestic and overseas securities regulatory provisions, benchmarked against regulatory requirements and international rules, improved the internal corporate governance structure, established a corporate governance structure with the General Meeting of Shareholders as the supreme authority, the Board of Directors as the decision-making body, the Supervisory Committee as the supervisory body, and the Management as the executive body, forming a coordination and balance mechanism with clear powers and responsibilities, standardized operation and integrated management. Moreover, the Company fully integrated ESG management into its development strategy, business operation and management, constructed a scientific and professional ESG management system and a clear and transparent ESG governance structure, and comprehensively implemented ESG-related strategies to continuously promote the sustainable business development of the Company.



In 2024 Held the general meeting of shareholders	Reviewed the proposal and formed the resolution
1 time	10 items

General meeting of shareholders

The general meeting of shareholders is the authority of the Company, exercising its functions and powers according to law, and fully respecting and safeguarding the legitimate rights and interests of all shareholders and investors.

In 2024 The board of directors held the meeting	Reviewed the proposal and formed the resolution
7 times	38 items

Board of Directors

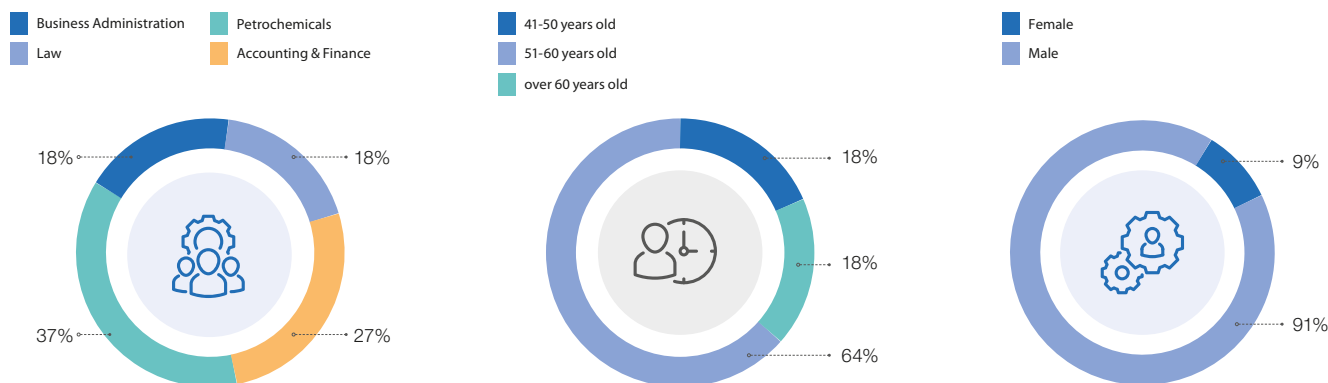
The Board of Directors is responsible to the shareholders, executes the resolutions of the general meeting of shareholders and exercises the decision-making power on all major events of the Company. The Board of Directors, as the supreme organization for ESG event management and information disclosure of the Company, attaches great importance to the management of sustainable development, integrates ESG into the whole process of the Company's operation, establishes an effective ESG management mechanism, forming a clear hierarchical governance structure with clear division of labor, effectively controls ESG-related risks, and promotes the continuous improvement of the Company's governance level.

In 2024 The supervisory committee held the meeting	Reviewed and approved the proposal
4 times	13 items

Supervisory Committee

The Supervisory Committee is responsible to the general meeting of shareholders, and is composed of supervisors democratically elected by the general meeting of shareholders and the Company's employees. It supervises and expresses opinions on the business activities of the Company, and inspects the performance of duties and responsibilities by the board of directors and the management. As of the end of 2024, the Company had a total of 6 supervisors, including 2 independent supervisors.

The Board of Directors of the Company follows the principles of diversity, independence, rationality and specialization. As of the end of 2024, the Board of Directors consists of 11 directors, including 4 executive directors, 2 non-executive directors and 5 independent non-executive directors, and the members of the Board of Directors have diversified educational and industrial backgrounds, such as business administration, accounting and finance, law, petrochemicals, etc., which ensures that the Board of Directors is able to make full consideration from multiple perspectives in decision-making and supervision. The Company has established a comprehensive system of independent directors, selected and recruited independent directors in strict accordance with the election procedures and terms of appointment as stipulated in the Company's Articles of Association, so as to ensure that no less than one-third of the members of the Board of Directors are independent directors. Independent directors independently perform their duties, participate in the decision-making of the Board of Directors, express independent opinions on important and major issues, provide feedback to the management and listen to reports on the issues, and give guidance on the prevention of risk mitigation. As of the end of 2024, the Company's Board of Directors had 11 members, of which 9.1% were female directors and 45.5% were independent directors. In 2024, the attendance rate of the meetings of the board of directors was 100%; 0 of the directors attended less than 75% of the meetings of the board.



Special Committee of the Board of Directors

The Board of Directors of the Company consists of four special committees, including the Strategy and ESG Committee, the Audit and Compliance Committee, the Remuneration and Appraisal Committee, and the Nomination Committee, which provide advice and recommendations for the Board's decision-making.

Performance of the Special Committees of the Board of Directors in 2024	Strategy and ESG Committee	Be responsible for studying the Company's development strategy, major investments and other significant matters and providing advice to the Board of Directors; advising the Board of Directors on the Company's ESG-related strategies, planning and decision-making; focusing on the Company's ESG commitments and performance, studying the Company's ESG-related matters, reviewing the Company's annual ESG report and making recommendations to the Board of Directors, etc. In 2024, the Strategy and ESG Committee held meetings for 1 time.
	Audit and Compliance Committee	Be responsible for proposing the hiring or replacement of external auditors and communication between the Company's internal and external auditing and compliance; overseeing the Company's internal auditing system and compliance management system and their implementation; reviewing the Company's financial information and its disclosure; and reviewing the Company's internal control system, etc. In 2024, the Audit and Compliance Committee held meetings for 4 times.
	Remuneration and Appraisal Committee	Be responsible for formulating and reviewing the remuneration policies and programs for directors and senior executives; formulating the appraisal criteria for the Company's directors and senior executives and conducting the appraisals. In 2024, the Remuneration and Appraisal Committee held meetings for 3 times.
	Nomination Committee	Be responsible for making recommendations to the Board of Directors on the procedures, criteria and qualifications for the selection and appointment of the Company's directors and senior executives. In 2024, the Nomination Committee held meetings for 1 time.

Operations management

The Company's management, including the general manager, deputy general manager, chief financial officer, secretary of the Board of Directors and other leadership, is responsible for organizing and implementing the resolutions of the Board of Directors, promoting the implementation of ESG matters, and regularly reporting to the Board of Directors on its work, so that the Board of Directors can obtain sufficient and appropriate latest information on ESG, ensuring that the Company's strategy is carried out.

Assessment of the significance of the topics

The Company identifies and discloses the topics of “dual significance” in terms of financial and impact in accordance with the requirements of national laws and regulatory policies, taking into account the petrochemical industry and business operations, in order to rationalize the allocation of resources for this sustainable development topic in the short, medium and long term, and describes the process of analyzing the significance of the topic.

Dual significance analysis process



Identification

- ◎ Analyze the Company's internal business plans and strategies, inspect the geographic location of the Company's products services and activities, and draw the Company's business relationship chart;
- ◎ Analyze sustainable development regulatory policies issued by the Ministry of Ecology and Environment, the China Securities Regulatory Commission, the State-owned Assets Supervision and Administration Commission of the State Council, and the Ministry of Finance etc.;
- ◎ Analyze stakeholders' opinions and prioritize specific topics through direct communication, opinion solicitation, and information provision.



Screening

- ◎ Analyze the overall impact of the national and Shanghai macro-policies on the Company, and the specific impact of petrochemical industry standards and management codes on the Company;
- ◎ Select relevant topics for significance analysis with reference to the Shanghai Stock Exchange Supervisory Guidelines and Compilation Guides and the Hong Kong Stock Exchange Reporting Code;
- ◎ Continuously evaluate and extensively refer to the topics and analysis processes of a number of leading petrochemical enterprises at home and abroad, forming 21 topics of significance.



Assessment

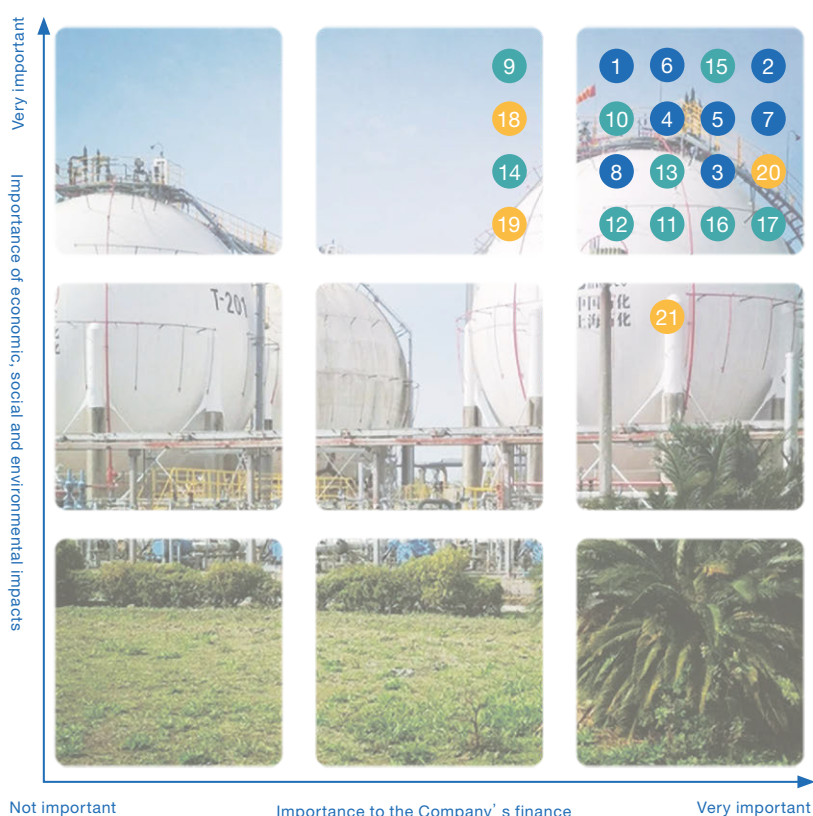
- ◎ Determine the factors and scoring intervals for impact significance assessment, and formulate conclusions on the impact significance assessment through stakeholders' research, etc.;
- ◎ Identify risk opportunities affecting the Company's business operations, financial and operating results, cash flow, etc., and formulate conclusions on financial significance assessment;
- ◎ Construct the significance topics matrix based on the results of the dual significance assessment and the “financial significance” and “impact significance” scores for each topic.



Review

- ◎ Submit to the Strategy and ESG Committee for review, and form the final significance topics matrix;
- ◎ Disclose the analysis process and results of the significance of the topics, and use it as the basis for the Company's ESG disclosure.

SPC ESG Significance Topics Matrix in 2024








SPC ESG Significance Topics in 2024

Classification of topics	No.	Substantive topics
Environment	1	Tackling climate change
	2	Pollutant emission
	3	Waste management
	4	Ecosystem and biodiversity conservation
	5	Environmental compliance management
	6	Energy utilization
	7	Water resource utilization
	8	Circular economy
Society	9	Rural revitalization
	10	Social contribution
	11	Innovation drive
	12	Scientific and technological ethic
	13	Supply chain security
	14	Equal treatment of small and medium-sized enterprises
	15	Product and service safety and quality
	16	Data security and customer privacy protection
	17	Employees
Governance	18	Due diligence
	19	Stakeholder communication
	20	Anti-commercial bribery and anti-corruption
	21	Anti-unfair competition

Stakeholder communication

Working hand in hand with stakeholders is not only a key element of the dual significance assessment, but also a long-term impetus for driving the Company's high-quality development. In order to fully understand the needs of stakeholders, the Company actively expands communication channels, maintains regular and diversified communication with stakeholders such as the government, investors, customers, the public, peers, employees, suppliers, and the communities, and responds to the expectations and claims of the stakeholders in a timely manner.

Identification of stakeholders	Expectations and Claims	Communication and Response
 <p>Government and regulatory agencies</p>	<ul style="list-style-type: none"> Implement the carbon peak and carbon neutrality goal and promote the progress of the industry Operate in accordance with laws and regulations, and keep products safe and reliable Make scientific research and technological innovation, and focus on operation and revenue generation Promote party building leadership, and control safety risks 	<ul style="list-style-type: none"> Policy implementation, institutional inspection Seminar, discussion, communication and reporting Project approval, government supervision Signing agreements and establishing cooperation
 <p>Investors and creditors</p>	<ul style="list-style-type: none"> Good performance and steady situation Strengthening operation and information disclosure Green development and employment promotion Financial security and risk control 	<ul style="list-style-type: none"> Shareholders' meeting, information disclosure Conference calls and company visits Roadshows and corporate annual reports Improvement of governance and internal control system
 <p>Clients and consumers</p>	<ul style="list-style-type: none"> Fulfill product responsibilities and focus on high-end supply Serve customers wholeheartedly and safeguard their rights and interests Pay attention to data security and strengthen privacy protection 	<ul style="list-style-type: none"> Customer visits and satisfaction surveys Dispatch experts to provide on-site service Combined online and offline services
 <p>Public and media</p>	<ul style="list-style-type: none"> Improve the transparency of operational information Provide quality products and services Maintain good public relations 	<ul style="list-style-type: none"> Carry out news reports and publicity Keep smooth communication between the public and the media Hold public open day activities
 <p>Peers and industry organizations</p>	<ul style="list-style-type: none"> Extensive consultation, joint contribution and shared benefits, and promote win-win cooperation Realize complementary advantages and help industry transformation Promote good faith performance and discuss risk prevention and control together 	<ul style="list-style-type: none"> Exchanges and visits, cooperative research and development Industry forum, expanding platform Party building, joint construction and pairing communication
 <p>Employees</p>	<ul style="list-style-type: none"> Safeguard occupational health and safeguard the rights and interests of employees Upgrade vocational skills and provide a platform for development Improve the assistance mechanism and enhance the caring measures 	<ul style="list-style-type: none"> Employee meetings and occupational health training Corporate culture activities, internal communication platform Understanding employees' demands through grassroots visits
 <p>Suppliers & partners</p>	<ul style="list-style-type: none"> Open and fair, just procurement Honesty and integrity, mutual benefit and win-win Committed to building a green supply chain 	<ul style="list-style-type: none"> Supplier exchange, evaluation and training Promote green procurement and warehousing and distribution Improve supplier management system
 <p>Community</p>	<ul style="list-style-type: none"> Upgrading industries and enhancing local employment Supporting poverty alleviation and rural revitalization Addressing climate change and green development 	<ul style="list-style-type: none"> Volunteer service, public welfare and charity Helping products, claiming industry External investigation, science popularization of environmental protection

Safeguard investors' rights and interests

The Company attaches great importance to investor relations management, and has always been committed to improving the quality of information disclosure, strengthening communication with investors, striving to improve the level of corporate governance and the effectiveness of market capitalization management, and promoting sustainable economic and social development while continuing to reward investors.



Information disclosure is standardized and efficient

- Completed the regular disclosure of contents and data of annual report, interim results report and first and third quarter reports with high quality.
- Issued 144 provisional announcements covering resolutions of the Board of Directors and the supervisory committee, resolutions of the General Meeting of Shareholders, performance forecasts, etc.
- Prepared and published the 16th ESG Report (Social Responsibility Report), and received an "A" rating from the Shanghai Stock Exchange for information disclosure.

Investor relations management is innovative and effective

- Actively participated in online and offline investor exchange activities, and held performance presentation conferences and various promotional roadshows.
- Organized online performance briefing sessions to fully communicate with participants and effectively protect the interests of small and medium investors.
- Actively participated in investor conferences, and made face-to-face exchanges with fund managers, securities analysts, shareholders, etc. to discuss development issues together.
- Timely released announcements and other important information on the Company's official website in English and traditional Chinese to keep foreign investors abreast of the Company's dynamics.



Improving governance and market value management

- Drew up the work plan, prepared for the meetings of the general meeting of shareholders, the Board of Directors and the Strategy and ESG Committee, and completed the deliberation of relevant proposals.
- Strengthened the risk management and control of related transactions, and improved the management ledger of small-amount and high-frequency related transactions.
- Successfully completed the finishing work of US stock information disclosure and the deregistration of American Depositary Receipts (ADR).
- Repurchased approximately 109 million H shares and the H share price increased by 5.26% during the period of repurchase.

Innovating "Public Open Day" Activities

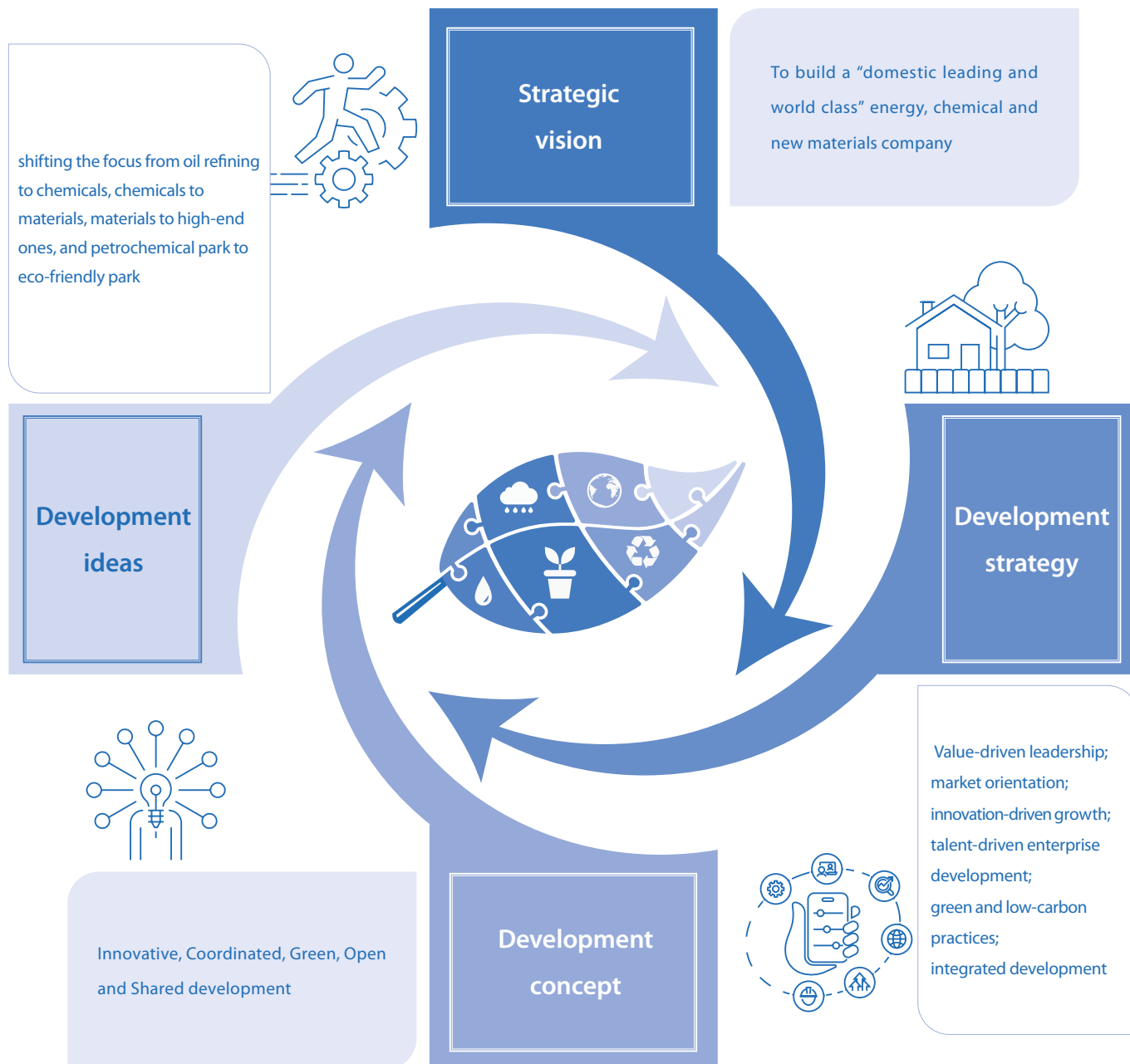
Focusing on the fulfillment of ESG responsibilities, the Company actively told the story of Shanghai Petrochemical, and presented a true, three-dimensional and comprehensive corporate image to the public, the media, investors, the government and surrounding residents through social media publicity, public open days, and party building, co-construction and pairing. Among them, investors and analysts were invited to visit the site and make exchanges for many times, so as to gain an in-depth understanding of the Company's production and operation, product structure adjustment, economic benefits, future development planning and development prospects of carbon fiber industry.

The Company practiced the concept of green development, worked hard to create efficiency in operation, and earnestly fulfilled the attitude and spirit of corporate ESG governance, which was unanimously praised by the visitors.



Development strategies

The Company fully implements the spirit of the 20th CPC National Congress and its plenary sessions, adheres to the new development concept of “Innovative, Coordinated, Green, Open and Shared development”, and actively responds to the national strategic goal of “Carbon Peaking and Carbon Neutrality”, the strategic requirements of Shanghai’s “North-South Transformation” and SINOPEC’s industrial strategy layout of “One Base, Two Wings and Three New”, thoroughly implements the six development strategies of “value-driven leadership, market orientation, innovation-driven growth, talent-driven enterprise development, green and low-carbon practices, and integrated development”, firmly promotes the shifting the focus from oil refining to chemicals, chemicals to materials, materials to high-end ones, and petrochemical park to eco-friendly park, and strives to build a “domestic leading and world class” energy, chemical and new materials company.



ESG risk management

The Company attaches great importance to ESG governance and fully integrates ESG concepts into its development strategy, governance structure, production operations and business processes to enhance the corporate soft power and competitiveness in order to create a more sustainable and responsible business future.

ESG risk management framework

The Company has established a standardized ESG management system and perfected the ESG risk management structure comprising strategy, coordination and execution layers. Among them, the Board of Directors has set up a Strategy and ESG Committee, which is responsible for undertaking specific matters related to ESG management.

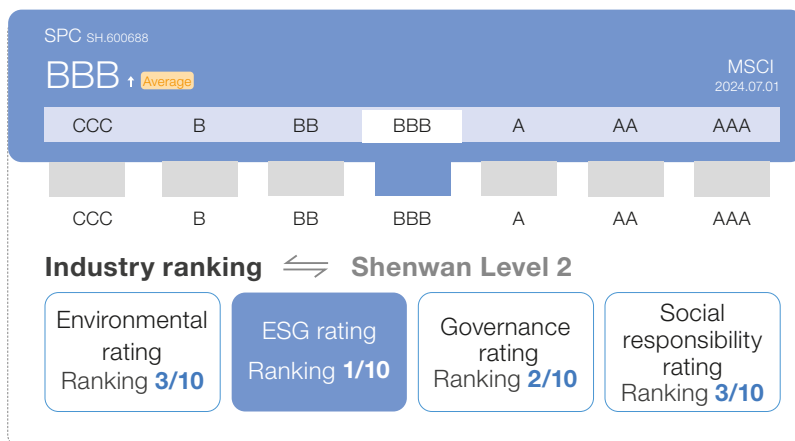


This year, the Company continued to strengthen the functioning of the Strategy and ESG Committee, integrating ESG into the entire process of corporate development strategy and operation, and promoting the in-depth integration of ESG with corporate production and operation.

Specific responsibilities of the Strategy and ESG Committee

- To study the Company's development strategy program, and advise the Board of Directors;
- To study individual projects with investments greater than 5% of the Company's most recent audited net assets, and advise the Board of Directors;
- At the request of the chairman of the Board of Directors, one-half or more of the independent directors, or one-third or more of the directors, to study major investment programs, major investment projects and other significant matters affecting the development of the Company that are subject to the decision-making of the Board of Directors, and advise the Board of Directors;
- To advise the Board of Directors on the Company's ESG related strategies, planning and major decisions;
- To focus on the Company's ESG commitments and performance, as well as important information on ESG matters related to the Company's business, study ESG-related matters of the Company and make recommendations to the Board of Directors;
- Review the Company's annual ESG report and make recommendations to the Board of Directors;
- Other matters authorized by the Board of Directors;
- Other responsibilities assigned by the securities regulatory authorities of the listing places at home and abroad;
- To supervise and study the implementation of the above matters, and make suggestions to the Board of Directors for improvement and adjustment in a timely manner.

During the year, the Company's ESG rating ranked at the forefront of the domestic petrochemical industry and was selected as the best practice case of sustainable development of listed companies in China. In the rating of MSCI, a well-known international rating agency, the Company's rating rose from Class BB to Class BBB. In the domestic authoritative Wind rating, it was upgraded from Class BBB to Class A.



ESG Risk Identification and Governance

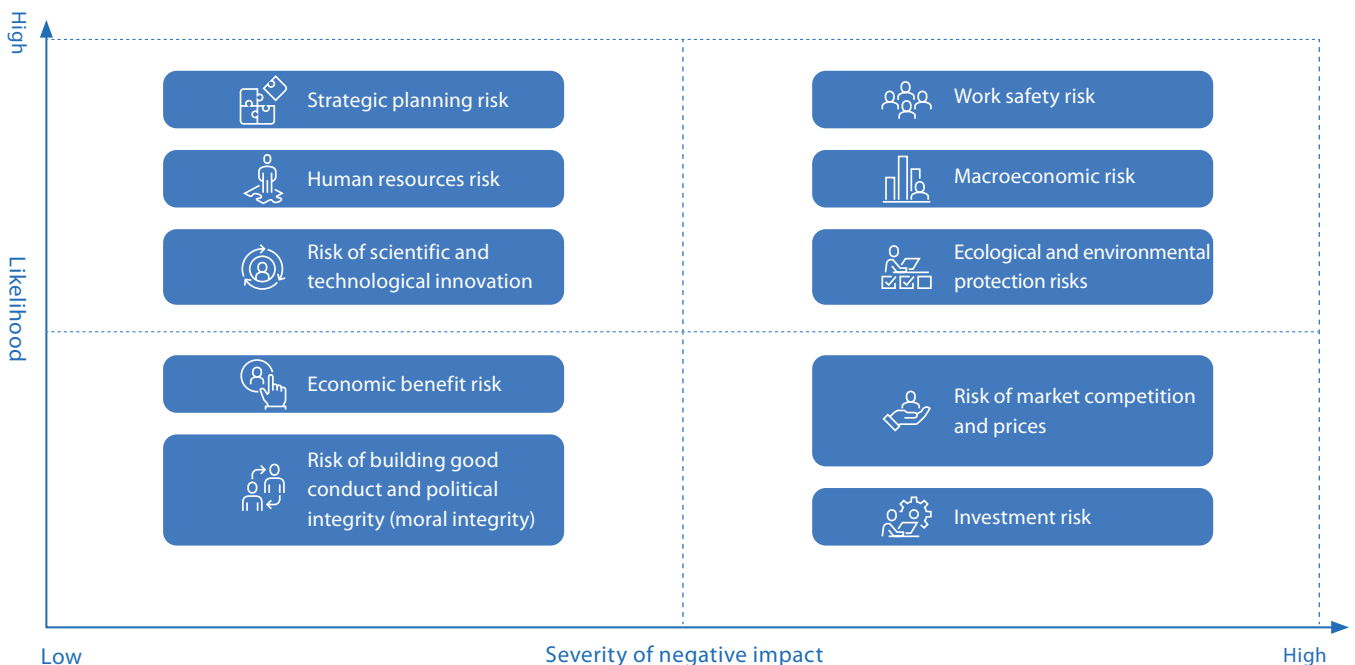
The Company continuously improves its risk management mechanism, regularly identifies, analyzes and evaluates various potential market, environmental and financial risks in production and operation management, and actively formulates and carries out risk response actions.

Risk Identification	Risk Assessment	Risk Prevention and Control	Risk Report
The Corporate Management Department organized various departments to identify major ESG risks affecting the current status of production and operations and future development through in-depth research and thematic studies.	Improved the fineness of risk quantification, assessing and judging risks based on their impact and likelihood, and determining the level of risk.	For the identified risks, formulated response plans and measures to reduce the risk to an acceptable level; Strictly conducted risk classification and hierarchical management, implemented the responsibility of risk reduction to post and individual, and strengthened the whole process management of risk.	The Board and the Strategy and ESG Committee regularly reviewed and discussed with management the results of the risk assessment and response process described above.

The Company conducts ESG risk identification, analysis and evaluation every year, and strengthens the monitoring, early warning and analysis of risks through quarterly monitoring of major risks, inspections of issues and internal audits. During the year, the Company focused on risk areas, including work safety risk, macroeconomic risk, ecological environmental protection risk, investment risk, risk of market competition and price, strategic planning risk, human resources risk, and science and technology innovation risk.

The Company has formulated corresponding risk prevention and control measures for key risks, including the strengthening of HSE and the “three fundamentals” management to reduce work safety risks, and the high-quality implementation of green enterprise action to prevent the risk of ecological environmental protection, etc., so as to ensure the effective operation of the risk management mechanism and to mitigate or eliminate the possible hazards and impacts.

ESG risk prioritization



Integrity and compliance

SPC adheres to the core values of "People-oriented, Responsibility, Integrity, Fineness, Innovation and Win-Win", strictly observes the Anti-Monopoly Law of the People's Republic of China, the Law of the People's Republic of China for Countering Unfair Competition, the Criminal Law of the People's Republic of China, the Company Law of the People's Republic of China, the Supervision Law of the People's Republic of China, Law of the People's Republic of China on Administrative Sanctions for Public Officials, Provisions on the Integrity of Leading Personnel of State-owned Enterprises and other relevant laws and regulations, as well as international conventions such as the United Nations Convention Against Corruption, etc., and integrates legal compliance into the business and embeds it in the process, forming a corporate culture of integrity and honesty. The Company strictly complies with the above principles and regulations on anti-corruption, anti-commercial bribery, anti-racketeering, anti-fraud and anti-money laundering, and at the same time requires suppliers, contractors and service providers to comply with the above regulations.

Honest and faithful

SPC always adheres to the business philosophy of integrity and standardization, cooperation and win-win, and the Company's credit has been highly evaluated and fully recognized by all walks of life.

SPC was honored as Shanghai's benchmark enterprise of "observing contract and valuing credit".

On 12 September, 2024, Shanghai Contract and Credit Promotion Association held a commendation meeting for the 20th anniversary of its founding, and awarded one hundred benchmark enterprises with the title of "Observing Contract and Valuing Credit". SPC was honored with the title of Shanghai's benchmark enterprise of "Observing Contract and Valuing Credit".

- Acquired Class AAA contract credit rating certificate
- Shanghai's benchmark enterprise of "observing contract and valuing credit"

Honoring integrity and rejecting corruption

SPC insists on linking the strengthening of integrity with the promotion of central work, strengthening disciplinary education and warning education, grasping special rectification and cultural leadership, and guiding cadres and employees to strictly examine themselves, so that compliance with rules and regulations becomes a daily self-consciousness.

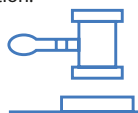
Strengthening integrity
education

Strengthening warning
and deterrence

Strengthening special
rectification

Strengthening cultural
guidance

Combined the study and education of party discipline with the study of the Regulations on the Disciplinary Actions for Management Personnel of State-owned Enterprises and the Code of Practice for Employees, and combined the anti-corruption and integrity education month with the regular daily education.



Standardized the enforcement of discipline and accountability, studied typical cases of violation of discipline and law, watched warning education films, visited warning education base, so that cadres and employees were alerted.



Further promoted reform and governance through cases, strengthened oversight in key areas, and carried out centralized remediation of the problems of "revolving doors" and "runaway resignations" in government and business.



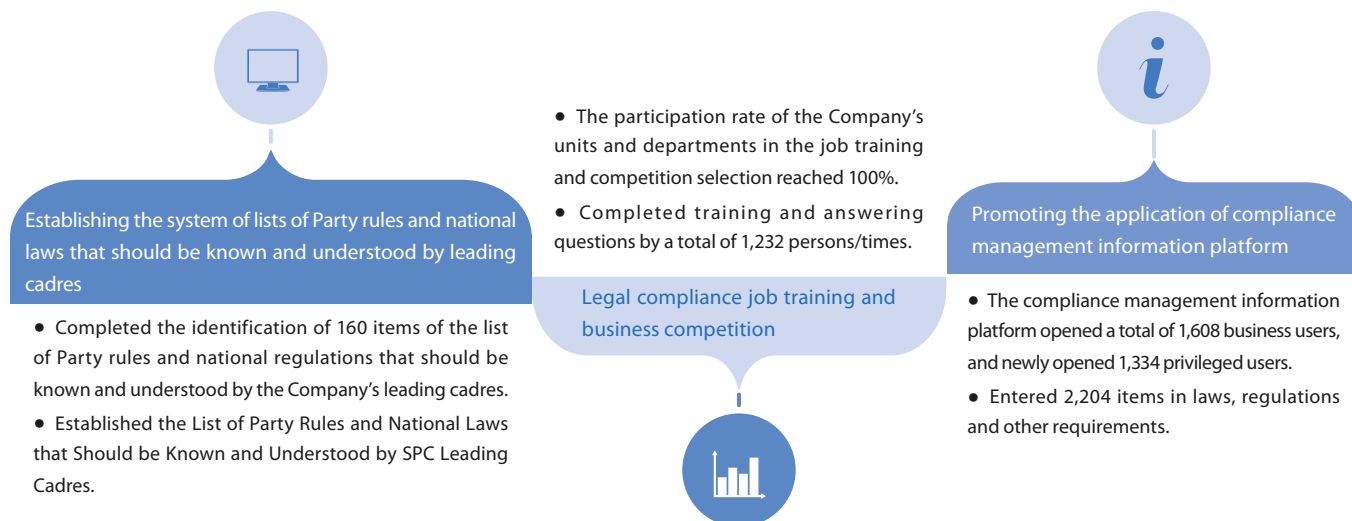
Formulated 20 detailed measures to strengthen the construction of integrity culture in the new era in seven aspects, and continued to deepen the "families help honesty" and "partners help honesty".



Compliance with Laws and Regulations

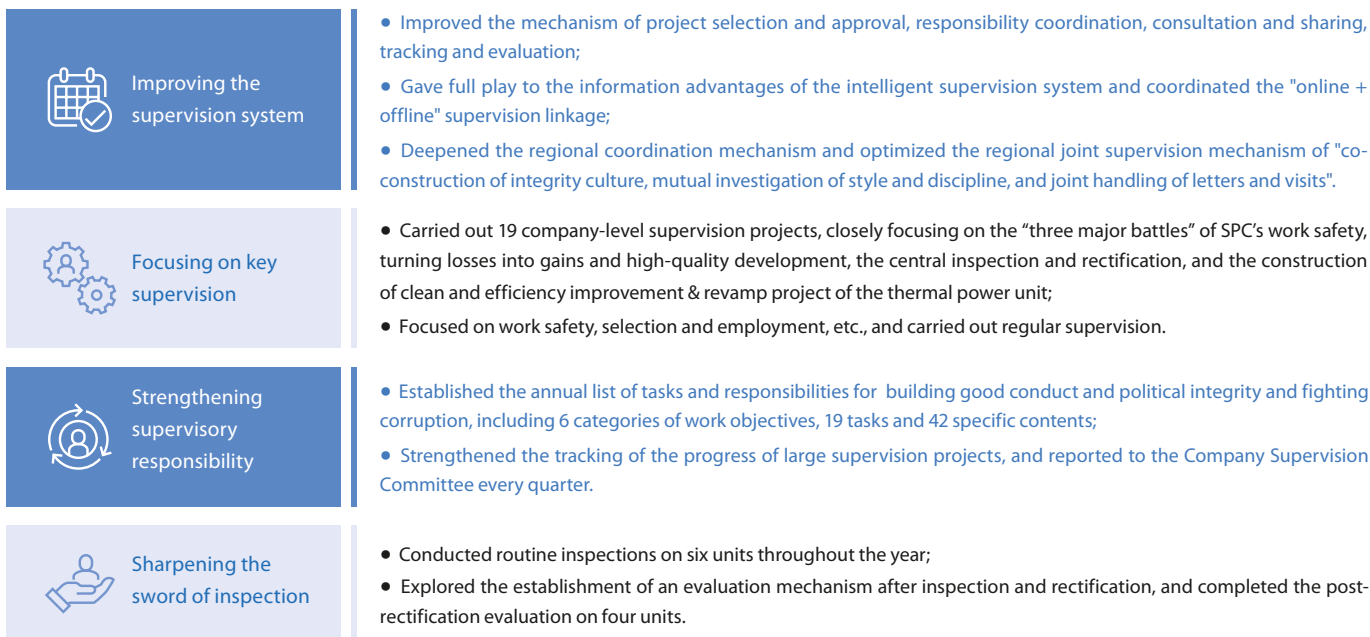
SPC continuously consolidated the “five-in-one” legal compliance work pattern of system, risk control, internal control, compliance and law.

◎ **The legal review rate of economic contracts continued to maintain at 100%.**



Strengthening the supervision

SPC insists on combining functional supervision with "re-supervision of supervision", actively promotes the coordination of various types of supervision, and promotes strong management with strong supervision to improve the level of management standardization.



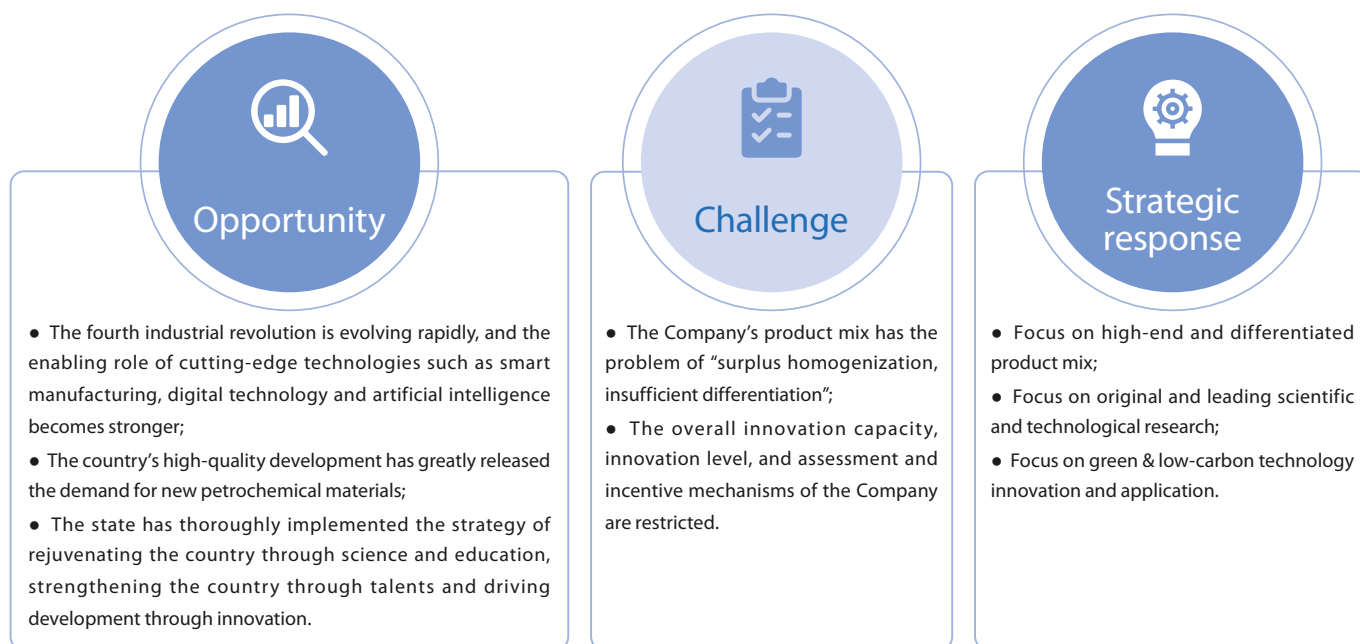
Improving the reporting mechanism

The Company has opened up the channels of complaint and reporting. The employees can report by letter, telephone, e-mail, visits and other channels. In accordance with the principles of "centralized management, hierarchical handling", the letters and visits of complaint and accusation type are managed by the Company Discipline Inspection and Supervision Department centrally and uniformly management, and handled after approval level by level. The Company earnestly implements the requirements of national laws and regulations on the protection of whistleblowers, and strictly keeps confidential the information and complaints of whistleblowers.

Scientific and technological innovation

The Company, with the important mission of taking the role of national strategic scientific and technological power, has taken the initiative to undertake key technological research tasks such as large tow carbon fiber and its composite materials. The Company insists on laying out the innovation chain with the industrial chain and extending the industrial chain with the innovation chain, and endeavors to make scientific and technological innovation the core driving force of the Company's high-quality development.

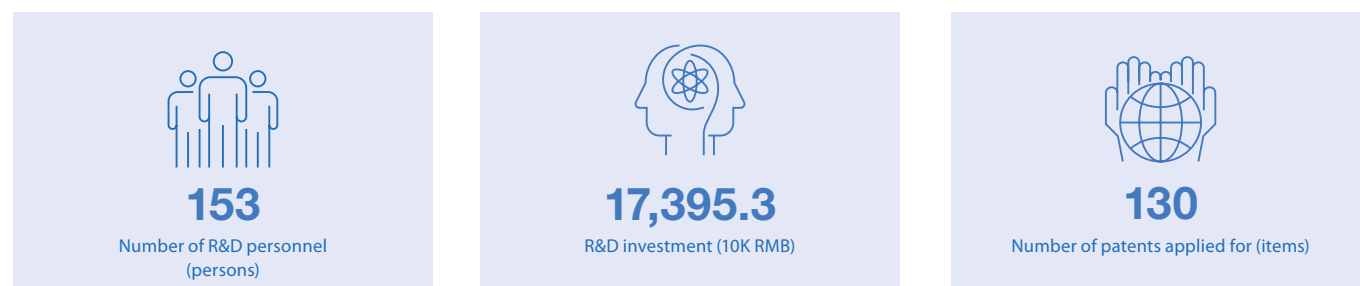
Technological innovation strategy



In 2024, the Company focused on key core technologies, continued to carry out technical research in the fields of 48K large tow carbon fiber industrialization technology, carbon fiber composite application technology, accelerated the application and industrialization of carbon fiber composite materials in wind power, aviation, rail transportation, civil engineering, new energy, ship building, etc., to provide an important support for the development of the downstream industry's new qualitative productivity, and to promote the development of regional new material industry with high quality.

The Company closely focused on the goal of enhancing corporate performance, making production bottlenecks through the research & development and application of new technologies and processes, increasing the Company's economic benefits through new product development, and generating positive financial impacts.

The Company's main indicators of scientific and technological innovation



Construction of Scientific and Technological Innovation System and Institution

The Company actively integrated into the new whole-nation system of science and technology innovation, and gathered high-quality resources inside and outside the system to build a good ecology of science and technology innovation. The Company has professional technology development departments, including Advanced Materials Innovation Research Institute, Synthetic Materials Research Institute and Environmental Protection Research Institute, etc., which continuously carry out research and development in the fields of new technologies, new products, new processes, equipment and environmental protection. The Company has a scientific and technological innovation platform led by the National Engineering Research Center for Synthetic Fibers and the Key Laboratory of Carbon Fibers and Composite Materials of Sinopec, and has actively deepened the reform of the scientific and technological system and mechanism, continued to promote the organization and management mode of "open competition mechanism to select the best candidates", improved the management function of new product development, and fully stimulated the enthusiasm and creativity of scientific researchers.

Focusing on key core technology research

- Continuously promoted national projects, SINOPEC "Ten Dragons" project and other key core technology research.
- Conducted regular assessment and evaluation to promote the development of key research tasks as planned.

Continuously promoting the project management mode of "open competition mechanism to select the best candidates"

- Organized regular evaluation and review, and improved and perfected the research process to ensure the completion of the research objectives.



Improving new product MPRC operating mechanism

- Set up 11 MPR working groups to improve the benefits of related products such as polyolefin, carbon fiber and acrylic fiber.
- Set annual targets and self-selling assessment targets.

Implementing the system of regional chief responsibility

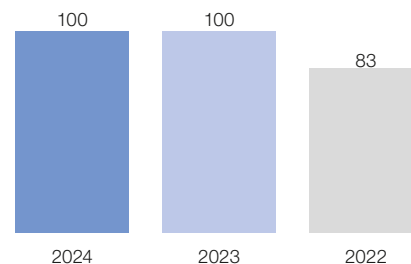
- Carried out the construction of "one cloud, one lake and one plant" in an all-round way

Strengthening intellectual property management

The Company strictly abided by the Intellectual Property Law and other laws and regulations as well as SINOPEC's requirements on strengthening intellectual property management, and continuously improved the protection and management of intellectual property rights. In 2024, the Company completed the revision of SPC Intellectual Property Management Measures, organized annual intellectual property rights publicity week activities and intellectual property rights training, strengthened publicity and education on intellectual property rights protection and application, comprehensively enhanced the awareness of respecting and protecting intellectual property rights among all staff, and vigorously promoted the transformation and application of intellectual property rights. The Company organized and carried out patent application training, and conducted in-depth analysis focally on the pain point issues of patent application layout, deep excavation, reply to patent examination opinions and new product patent layout etc., so as to lay a foundation for improving the quality of patents and strengthening the layout of patents.



Number of invention patents applied by the Company in 2022-2024 (items)



Emphasizing the ethics of science and technology

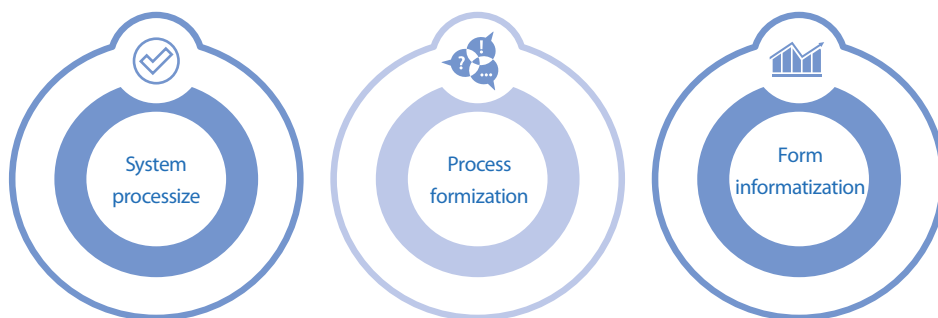
In order to minimize the health and safety risks of the products, if new technologies or processes were introduced during the R&D process, the Company carried out hazard identification according to the HSE management requirements before the introduction, and conducted risk assessment on all identified hazards according to the assessment standards, so as to determine the maximum degree of danger and the maximum scope of possible impact. The identified risks were summarized and risk control measures were determined to prevent ethical risks and optimize the ethical environment for science and technology innovation.

Digital and intelligent transformation

SPC comprehensively pushed forward the Company's digital transformation and mechanism innovation, and formed lean and efficient production organization and planning capability, agile and high-quality product supply and technical service capability, and peer-leading product development and application expansion capability by means of digital intelligence and informatization.

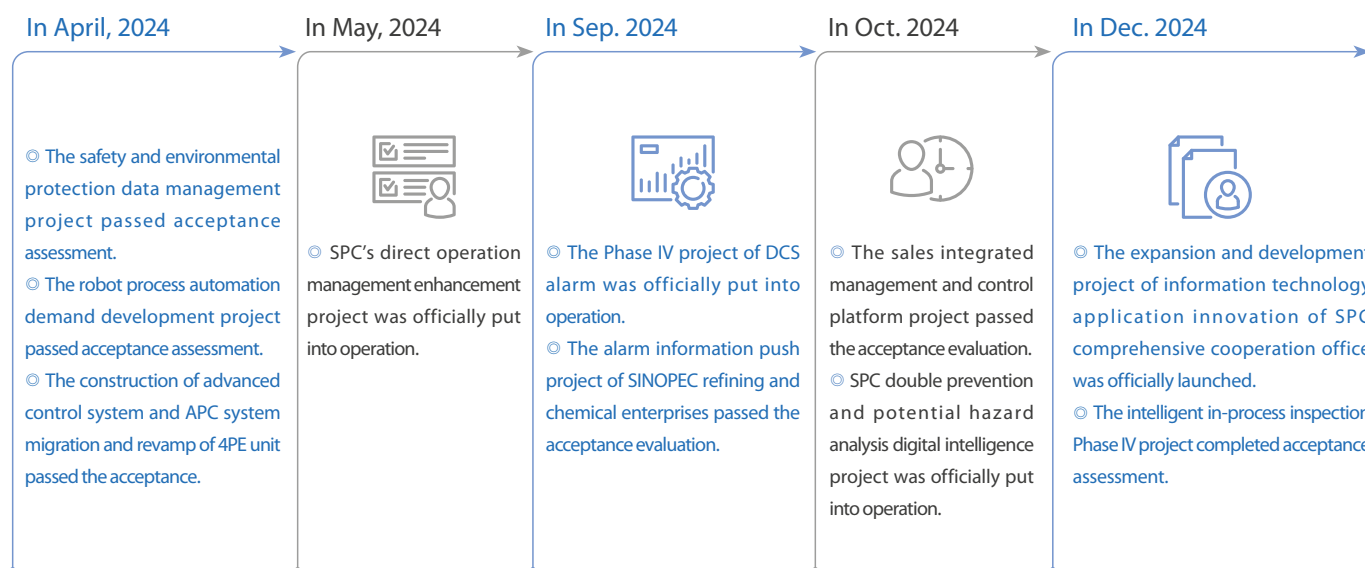
Digital reengineering

With the goal of improving efficiency, SPC promoted the efficient management of all work in a process-oriented way through system processize, process formization and form informatization, so as to realize the transformation of the Company's digital intelligence and mechanism innovation.



Digital and intelligent empowerment

SPC sought to improve its efficiency through digitization, informatization and intelligence, promoted 42 informatization projects in a coordinated way, vigorously promoted the "intellectualized reconstruction and digital transformation" of the whole industrial chain, actively cultivated new quality productivity, and built a strong cybersecurity barrier, so as to create a new power engine for the Company to take a new path of industrialization and accelerate the realization of high-quality development.



Integrated management and control platform of sales center

Case

The project construction includes 6 functional modules: personal workbench, marketing service, customer management, sales product management, logistics management and mobile application.

Through the data integration of IC card system, self-service pickup system, marketing analysis system and queuing & calling system in different periods, it is convenient for business personnel to grasp the general overview of business execution; through the distribution freight settlement management, customer satisfaction survey management, electronic loading permit management, electronic pass integration and other functions, it improved the work efficiency, shortened the work cycle, and reduced the workload; through the informatization means, it realized the transparency of information of the logistics interaction process and key links, global penetration of the upstream and downstream of the sales supply chain; logistics data were precipitated to provide data support for logistics management optimization.

By the end of 2024, the system had completed 5,321 electronic loading permit approvals, 18,200 sales order delivery fee settlements, and 1,485 warehouse-in and 37,900 warehouse-out shared pallets.

Digital Twin

Industrial manufacturing is the main battlefield for digital twin, which can bring obvious efficiency improvement and cost reduction. SPC is researching the use of digital twin technology to optimize the calculation and constantly release the potential of product structure adjustment and reliable production operation through establishing digital models. Empowered by digitalization, intelligence and information technology, "Digital Labor" (Robotic Process Automation, RPA) have appeared in various positions of SPC.

Digital technician

Process information integration platform · which is equivalent to the digital image of the Company's production facilities, and is also the carrier of the Company's "electronic inspectors", 24-hour on-line "digital doctors" and other "non-human colleagues".

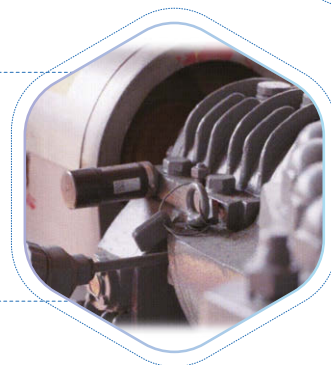
The newly added function of "Process Timing Affairs" in 2024 can help technicians know what they need to accomplish on a daily, monthly and yearly basis, thus realizing standardization, refinement and informatization of daily management.



Digital equipment operator

Equipment integrity system, through networking and intelligent upgrading of equipment sensors, achieves automatic induction and automatic organization of the massive data collected by the sensors.

By applying the equipment integrity system, the key units can operate under better working conditions, and the ability to detect potential hazards has increased by four times, and the time to detect defects has been shortened by five times.



Digital safety officer

Multi-functional smart mobile terminals, together with the digital application "Contractor Management Information Platform", can safely manage contractors' employees, machinery and construction process by way of punching in.

In 2024, mobile terminals were integrated with the Contractor Management Information Platform (CMIP) to enable online pre-construction contract review, personnel review, and construction plan review, and a standardized inspection process was planned.



02

RESPONDING TO CLIMATE CHANGE

The Company is committed to practicing the concept of “Lucid waters and lush mountains are invaluable assets”, incorporating the tackling of climate change into the strategic planning of corporate development, actively carrying out energy saving and carbon reduction actions, strengthening carbon emission management, promoting the transformation and upgrading of the energy structure, and providing petrochemical contributions to help our country realize the “carbon peak and carbon neutrality” goals and comprehensively promote the construction of a beautiful China.

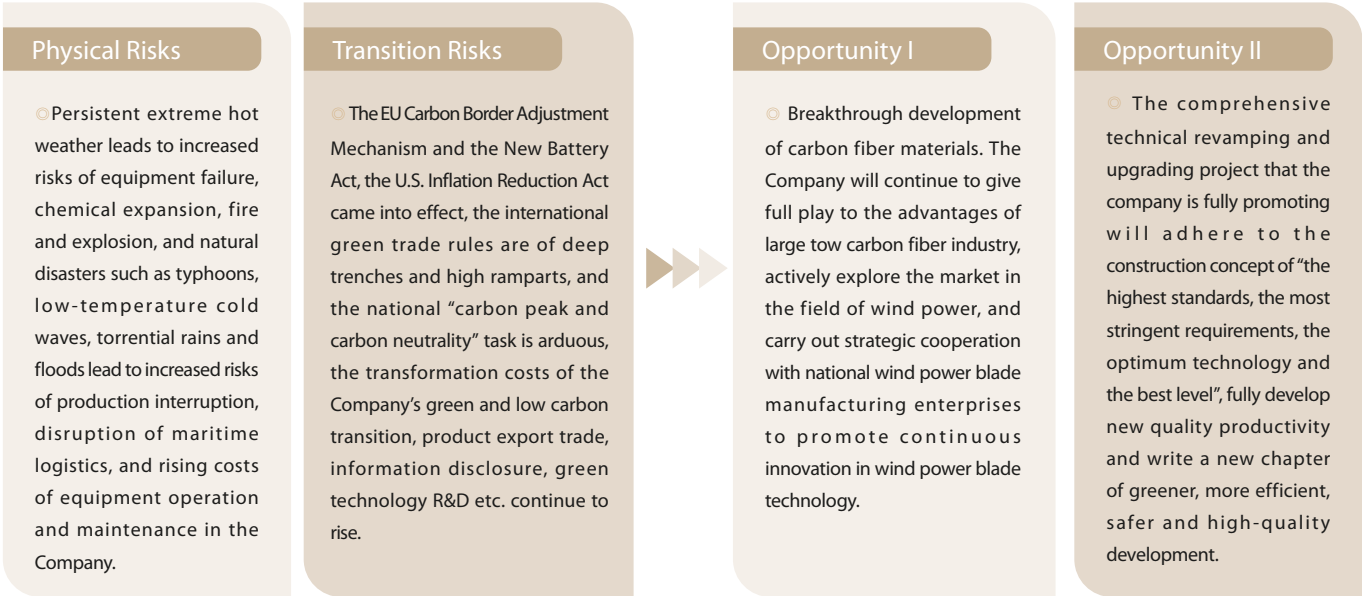
- 21 Top-level design for tackling climate change
- 22 Reducing greenhouse gas emission
- 24 Promoting low-carbon energy transition



Top-level design for tackling climate change

The Company deeply implements the national “carbon peak and carbon neutrality” goals and the requirements for the construction of beautiful China, resolutely implements the “SPC Peak Carbon Dioxide Emission Action Plan by 2030”, and continuously optimizes the top-level design for tackling climate change from the strategic level.

Risks and opportunities in tackling climate change



Strengthening strategic deployment to address climate change

- Formulated the SPC Work Program for Improving Energy Measurement and Monitoring Capability.
- Signed the Strategic Cooperation Agreement on Accelerating Transformation Development.
- Prepared the Inventory of Commonly Used Special Equipment of SPC.
- Revised the Measures for Carbon Emission Management of SPC.



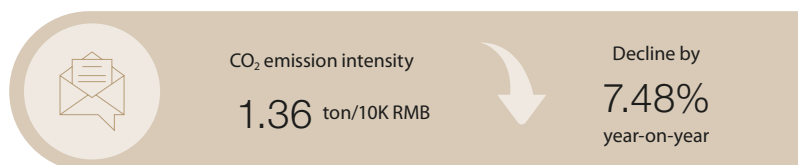
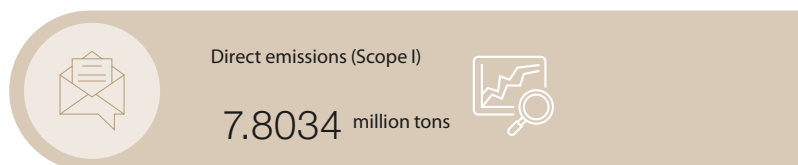
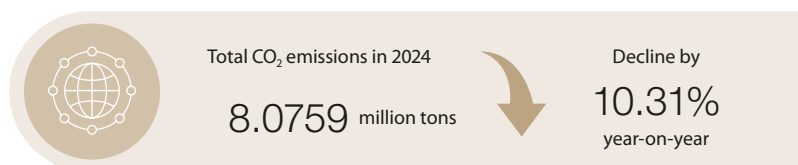
Implementing the strategic mission of carbon reduction



- Implemented the SPC Peak Carbon Dioxide Emission Action Plan by 2030.
- Actively carried out the special action of “mending shortcomings and strengthening weaknesses” in green and low carbon.
- Implemented the Green Enterprise Action Phase II Program with high quality.
- Launched the fourth round of cleaner production audit.

Reducing greenhouse gas emission

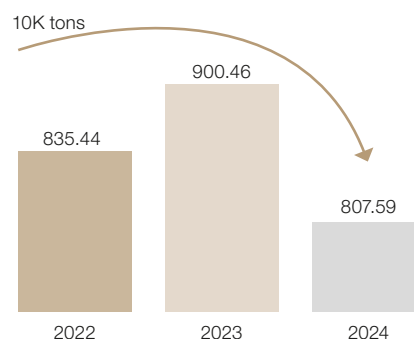
Strictly control the total amount and intensity of CO₂ emissions



The Company actively pushed forward the peak carbon dioxide emission action, accelerated green and low-carbon transformation, and vigorously promoted greenhouse gas emission reduction, with total CO₂ emissions declining by 10.31% year-on-year and CO₂ emission intensity declining by 7.48% year-on-year in 2024.

The Company's carbon emission target is that by 2025, the carbon emission intensity of the Company's output value will be 5% lower than that of 2020.

The Company's CO₂ Emission Trend in the Last Three Years

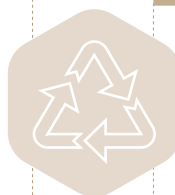


Strengthening the management of greenhouse gas emission reduction

Optimizing the management of other greenhouse gas emission reduction

In 2024, the Company had a very small amount of hydrofluorocarbons (HFCs) gases for water chiller fillers and sulfur hexafluoride (SF₆) gases for high-voltage switchgear insulation, which accounted for only 0.02% of the Company's total CO₂ emissions in terms of CO₂ equivalent emissions.

In terms of management initiatives, the Company conducted daily inspections of water chillers and high-voltage switchgears in strict accordance with the requirements of the system, and if leaks were found, they were eliminated in a timely manner to minimize the chances of leakage.



Strengthening cleaner energy management

In 2024, the construction of the principal part of the cleaner and efficiency improvement revamp project of the Company's thermal unit formally commenced, and it is expected that after the completion of the project in 2026, the total annual CO₂ emissions can be reduced by 1.1 million tons, which is equivalent to planting about 60 million trees.

In 2024, the Company actively promoted the construction of photovoltaic and hydrogen energy facilities, which together could reduce carbon emissions by 13,676 tons per year, equivalent to planting 748,000 trees.



Taking multiple initiatives to further tap the potential of energy saving and carbon reduction

1 Optimizing peak and valley power generation.

Through careful scheduling, the Company's Cogeneration Department reduced the cost of purchased electricity throughout the year on the basis of ensuring the safe operation of the units.

2 Optimizing fuel mix.

The Cogeneration Department of the Company actively purchased and co-combusted high sulfur coal, carried out the co-combustion of biomass fuels, and implemented the co-combustion of VOCs exhaust gas in No. 1 and No. 2 boilers.

4 Optimizing production processes.

No. 6 refining section of the Company's Refining Division took the steam consumption of the sulfur recovery unit regeneration system as a starting point to make process adjustments and effectively reduce production costs.

3 Optimizing operation management.

The Chemical Division of the Company optimized and adjusted the reflux flow of each tower according to the changes in production load, and reduced the cooling water consumption by optimizing the operation of the water cooler.

6

Promoting the application of new materials.

The Company developed 12mm large tow carbon fiber composite rebar. Compared with the traditional steel boom, the use of carbon fiber composite materials saved about 60% of steel, reducing weight by about 50%, and reducing carbon emissions by about 20%.

5 Optimizing residual material management.

The Material Purchase Center of the Company activated the management of residual materials, promoting efficient resource recycling and green low-carbon development through measures such as reuse and buyback.

Carbon asset management and carbon trading

The Company calculated carbon emissions according to the international general greenhouse gas management standard (ISO14064). The data source of carbon emission factor is the measured calorific value of coal, petroleum coke, flare gas and C2 recovery gas, and the default values specified by ISO14064 are taken for other carbon emission factor without measured value.

Taking the legal person of the Company as the accounting boundary, the greenhouse gas emissions generated by all production facilities controlled by the company in operation were accounted, and the scope of facilities includes production units, auxiliary systems and ancillary systems.

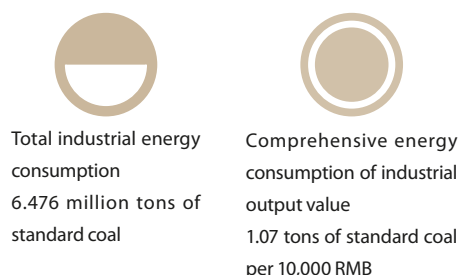
In 2024, the Company actively promoted the optimization of energy structure to reduce carbon emissions, purchasing 177,894,500 kWh of green power, generating 13,334,500 kWh of green power, and co-combusting 3,318.74 tons of biomass fuel.

The Company focused on carbon asset management, controlled carbon emissions from the source, required fixed asset investment project proposals to consider carbon emissions and the impact of carbon price when measuring benefits, accurately measured the surplus and deficit of carbon quotas in a timely manner according to the current policy, made carbon budget properly at the beginning of the year, conducted carbon inventory on a monthly basis, formulated and completed the carbon trading plan in due course, developed and implemented energy-saving and carbon-reducing measures, and completed the fulfillment of carbon quotas in full and on time.

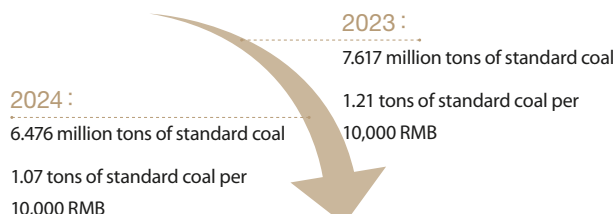
Promoting low-carbon energy transition

The Company adheres to the energy development goal of "fossil + renewable" and continues to promote the low-carbon energy transition. In 2024, the Company further improved its energy management system, strengthened professional technical management, set energy-saving indicators evaluation, increased the application of innovative technologies, and improved equipment energy efficiency.

Total energy consumption and intensity in 2024



Trend of variation in total industrial energy consumption and comprehensive energy consumption by output value



Distributed photovoltaic power plants



Delivery of large tow carbon fiber



Cogeneration unit revamp project

Promoting energy structure optimization and energy conservation

Clean fossil energy supply

Build clean and high-efficiency cogeneration units and promote the practice and application of new energy systems in the Company's own power plant. In August 2024, the construction of the principal part of SPC's cogeneration unit clean and efficiency improvement revamp project officially commenced. After the project is put into operation, the energy efficiency of the unit can be improved from 60% to 87.8%, and the annual coal consumption can be reduced by 16.7%.

Industrialization of high-tech energy technologies

Deeply cultivate clean energy technology, contributing to the realization of the national "carbon peak and carbon neutrality" goal. The Company grasped the market demand for large wind turbines and lightweight blades, overcame technical difficulties, and expanded the production scale. The phase I of the 48K large tow carbon fiber project was completed and all performance standards were met.

Energy conservation of production process

Strengthen equipment management and reduce production energy consumption and waste. Driven by "management + technology", the Company implemented energy-saving renovation of the furnaces and promoted the application of advanced technology, realizing the improvement of thermal efficiency of the furnaces, energy saving and reliability of units.

Increment of new energy supply

Lay out photovoltaic facilities to boost renewable energy supply. The total installed capacity of the Company's five distributed photovoltaic power stations reached 16 MW, and the cumulative photovoltaic power generation capacity in 2024 reached 13,334,500 kWh.

Formulate energy-saving management target planning

Carry out the plan to improve the energy efficiency of equipment in an all-round way. In 2025, the Company plans to improve the low-temperature heat recovery and utilization system, carry out a three-year special governance plan to improve the efficiency of circulating water cooling towers, and promote the application of equipment insulation materials.

Main energy consumption of the Company in the last three years

Indicator	Unit	2022	2023	2024
Coal consumption	10K ton standard coal	173.52	167.55	153.37
Power consumption (excluding external power supply)	10K kWh	266,993	289,618	266,586
Crude oil consumption	10K ton	1,045.33	1,413.07	1,334.58
Natural gas consumption	100million m ³	4.67	5.08	4.80
Comprehensive energy consumption of refinery	Kg standard oil/ton	57.40	52.04	51.97

03

GREEN AND SAFETY

The Company takes safety development and green development as the prerequisite and foundation for enterprise survival and sustainable development, firmly establishes the concept of safety development, continuously improves the HSE system, strengthens the environmental protection, develops the circular economy, attaches great importance to the biodiversity protection, promotes the construction of green enterprises, and comprehensively improves the level of intrinsic safety and environmental protection.

- 26 Enhancing safety management
- 28 Strengthening environmental protection
- 32 Developing a circular economy
- 34 Biodiversity protection



Enhance safety management

In 2024, the Company implemented the national requirements for three-year action deployment for tackling the root cause of work safety, strictly complied with the Work Safety Law of the People's Republic of China, and Shanghai Work Safety Regulations, further strengthened the awareness of the "red line" of work safety and bottom-line thinking, and launched the action program of "100 Days of Safety without Accidents" by taking the opportunity to carry out the "Safety Management Improvement Year" action to continuously win the battle of work safety. The Company strictly implemented the requirements of HSE management system, made every effort to prevent and resolve major risks and potential hazards, comprehensively improved the level of intrinsic work safety, and created a favorable environment for the Company's high-quality development with excellent HSE performance.

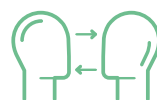
Strengthen the implementation of HSE responsibility, and hold the bottom line of work safety

In 2024, the Company continued to enhance its safety leadership, signing HSE Responsibility Letters at all levels and HSE Commitments for the whole staff, and promoting the implementation of the principle of "three management and three musts"; the Company implemented the work program of "HSE Punishment Order and HSE Deadline Rectification Order", and continuously implemented the post safety responsibilities of all staff, and promoted the implementation of HSE responsibilities in place to keep the bottom line of work safety.

Strictly implement HSE code of conduct, and fully grasp risk control

The Company traced back to the root cause, kept a close eye on abnormal production, implemented the requirements of the "100 days of safety without accidents" action, and strictly regulated the safety behavior. The Company strengthened the construction of the dual prevention mechanism, made good use of the dual prevention digital intelligence management and control platform, and carried out the risk and potential hazard investigation and the safety special inspection of major hazard sources of hazardous chemicals, so as to ensure that the situation of work safety would be stable and improving.

The olefin division of the Company carried out "woodpecker" action to investigate and rectify the potential hazards of plants



Achievements of HSE management system construction in 2024

I

Nonoccurrence of safety and environmental accidents (incidents)

II

Achieve "zero injury, zero pollution and zero accident" HSE objectives

III

Strive to win the titles of "Advanced Unit of Environmental Protection" and Class A "Zero Waste Plant" of Sinopec Group

IV

Occupational health examination rate
100%

Grasp the integrity management, and safeguard the intrinsic safety of equipment



In 2024, the Company continued to improve the construction of equipment integrity system and promote the whole life cycle management; strengthened professional management and carried out regular professional inspection of equipment to enhance equipment reliability. The Company continuously improved the smoothness of the production process, consolidated the foundation of work safety and ensured the intrinsic safety of the equipment through the management mode of "system + technology + platform".

Tighten the operational safety net to enhance contractor management



The Company further strengthened the responsibility of localization management, established the grid-based safety management system, and worked with contractors to weave a tight operational safety net. The Company strictly implemented the qualification examination of contractors, real-name system management, confirmation of entry and construction site conditions, and strengthened the safety supervision and assessment of contractors' operations.

Define supervision responsibilities, and strictly control direct operations

The Company set up a safety supervision team to build an on-site safety management mechanism with full regional coverage and no blind spot of responsibility; relying on the operation digital intelligent control system, it supervises the risk of direct operation in an all-round and all-weather manner, strictly controls high-risk operations, finds problems in time, makes immediate investigation and correction, and forms PDCA closed-loop management to ensure that the whole process of direct operation is normalized and standardized under control.



Company leaders went deep into secondary units to carry out safety field trips

Mr. Guo Xiaojun, Chairman of the Board of Directors of the Company, went to the No.2 and No.3 Olefin Complex of the Olefin Division to carry out a site safety visit and inspect the work safety, supervise the implementation of responsibilities, and ensure the stable operation of the plant. Mr. Guan Zemin, General Manager of the Company, went to the site of No.2 Refining Alkylation Unit of the Refining Division and the Central Control Room of the Aromatics Division to carry out a safety field trip to grasp on-site management and eliminate operation against rules.

Strengthen cybersecurity awareness and build cybersecurity defenses together

In 2024, the Company actively participated in national cyber attack and defense drills to comprehensively improve the level of cyber security technology protection and purify the cyber environment; it carried out a variety of cyber security education activities, publicized the prevention of phishing emails and other common cyber threats, and built a cyber security defense line with its employees.

Company's Cybersecurity Strategy in Key Period

- 1 Re-route dedicated network cable for competition classes
- 2 Equip contestants with dedicated computers and strictly enforce the prohibition of USB flash drive access to public networked computers
- 3 Install security check software clients for all office computers to effectively prevent data leakage
- 4 Strengthen the management of anti-virus clients, carry out comprehensive virus checking and killing, and delete suspicious files in a timely manner
- 5 Invite relevant experts from the Network and Information Security Committee of the Internet Society of China to give lectures on network security knowledge

Promote standardized management to ensure smooth production operation

In 2024, the Company strengthened the "three fundamentals" work, carried out the "strongest operation" competition, continued to carry out the "IIF Day" activities, and with higher standardization requirements and "Three No's" operation management requirements, achieved standardization of HSE management, refinement of safety management, orderliness of site appearance, and standardization of construction management to ensure smooth operation of production plant.



Enhance emergency response capabilities and stimulate the internal impetus of security

The Company continuously improved the emergency plan and on-site disposal program, and strengthened the emergency rescue drills of the fire department to ensure that the staff can timely dispose of abnormal and emergency conditions according to the "135" principle. The Company carried out the "Work Safety Month" warning education activities, strengthened the training of accident handling ability, enhanced the education of safety laws and regulations, guided the cadres and employees to firmly establish the "red line" consciousness and bottom-line thinking, and stimulated the endogenous motivation of the whole staff to emphasize safety and ensure safety.

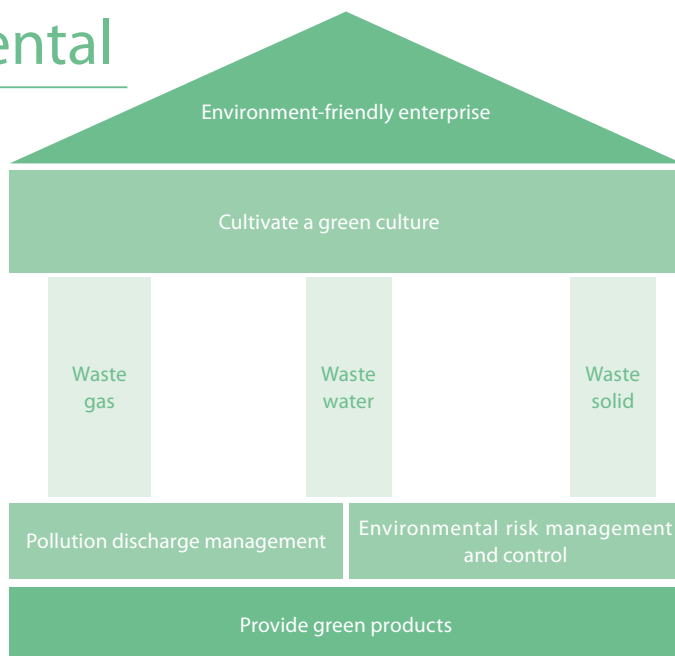


Strengthening environmental protection

The Company strictly abides by the pollution prevention laws, regulations and regulatory documents formulated by the State and Shanghai Municipality, and takes the construction of an “environment-friendly enterprise” as its goal. The Company actively fulfills the main responsibility of corporate environmental protection, continues to fight the battle of pollution prevention and control, and deeply promotes the construction of a green enterprise.

Cultivating a green culture

Green culture is an important part of the Company’s corporate culture. The core connotation of the Company’s green culture is to dedicate to clean energy, practice green development, build a “clean, efficient, low-carbon, recycling” green clean energy chemical enterprise, and coexist harmoniously with the surrounding communities and natural environment.



Institutional guidance

In 2024, the Company formulated the Green Culture Construction Program, which put forward the basic idea of promoting the green culture construction of the Company. The Company has rooted the concept of green development in every employee’s heart, making its practice a spiritual pursuit for all.

Scenario application

- Green office
Advocate paperless office, improve garbage classification and reduce office energy consumption.
- Green procurement
Set up green procurement standards, establish a green procurement list, select green raw materials, and promote packaging reduction and waste reduction.

Green culture

Image publicity

- Carry out thematic publicity
Carry out environmental publicity activities such as “World Environment Day on June 5” and “Zero Distance in Environmental Protection Facilities, Joint Participation in Building a Beautiful Jinshan”.
- Enhance community communication
The Company is an open unit of environmental protection facilities in Jinshan District. In 2024, it carried out the “Public Open Day” activities for a total of 44 times, and 1,441 person-times visited the plant.

SPC has made substantial investments in green environmental protection, leading to thriving coastal ecosystems where egrets have established their habitat.



Pollution discharge management

The Company strictly abided by the “Environmental Protection Law of the People’s Republic of China” and other relevant national environmental protection laws and regulations, the “Water Pollution Prevention and Control Law of the People’s Republic of China”, “Air Pollution Prevention and Control Law of the People’s Republic of China” and other pollution prevention and control laws and regulations, strictly implemented the standards for emission of various pollutants, attached great importance to and effectively pushed forward the work of environmental protection, carried out the battle against pollution in depth, and developed pilot projects of controlling the soil and groundwater pollution while making production, so as to continuously reduce pollutant emissions and minimize the impact of production and business activities on the environment in the whole process.

Waste gas management

The Company continuously deepened the management of air pollutants, actively carried out all kinds of emission reduction initiatives, vigorously promoted the management of exhaust gas emissions in the whole process of production and operation, and continuously enhanced the online monitoring of air pollution sources and up-to-standard control. The Company has adopted precise traceability, process control and in-depth management initiatives to improve its air pollution management performance comprehensively.



Waste water management

The main categories of the Company’s wastewater are production wastewater and domestic wastewater, of which the production wastewater involves chemical oxygen demand (COD), ammonia nitrogen and other pollutants. The Company strictly abides by the national and local relevant wastewater discharge standards, and is committed to building the most beautiful and efficient water purification plant, continuously strengthens the control of sewage sources, internal production management, water quality control of Suitang River, effectively promotes the separation of rainwater and sewage, and separate treatment of sewage, standardizes the control of wastewater discharges, and effectively realizes the wastewater up-to-standard discharge and total emission reduction.



Prevention and control of soil and groundwater pollution

As an enterprise included in the list of pilot enterprises for soil and groundwater pollution control while producing, the Company prepared the "Implementation Plan for Pilot Work of Control While Producing in SPC Olefin Division" and the "Technical Plan for Investigation of Soil and Groundwater Environment Status of SPC Olefin Division", systematically carried out prevention and control measures for soil and groundwater pollution, committing to enhancing these efforts comprehensively. It actively promoted and completed the confirmation of soil and groundwater monitoring points and the sampling for construction of wells, and completed the comprehensive investigation of the whole plant, the detailed investigation of the points exceeding the standard, the tracing and disconnection of the source of contamination, and the assessment of the risk of spreading of groundwater contamination and the risk of human health.

Environmental risk control

The Company continuously strengthened environmental risk control and potential hazard rectification, taking management of anomalies and risk control as the key, carried out in-depth ecological and environmental risk identification, investigation and assessment, improved the level of digital intelligence of environmental risk monitoring, and structured and established long-term mechanism for environmental protection management. The Company has revised the "SPC Comprehensive Emergency Response Plan for Emergent Environmental Incidents", formulated 9 special emergency response plans including the "Special Emergency Response Plan for Environmental Risks of Water Bodies", detailed the responsibilities of all departments and levels, and carried out regular emergency response drills for the disposal of environmental emergencies, so as to continuously improve the ability of the Company to prevent and control the environmental risks. In 2024, the Company had no source of extremely high environmental risks.

Digital intelligence transformation empowers environmental management: typical case



Adding oil spill monitoring and alarm system to chemical terminal

A comprehensive monitoring and alarm system which integrates remote monitoring, real-time feedback, all-weather operation and fully automated operation has been added to the chemical terminal of the Storage and Transportation Department to effectively identify oil spills in the monitoring waters. Once the thickness of the oil film exceeds the preset safety threshold, the alarm mechanism will be triggered immediately, and the alarm information will be quickly communicated to the terminal monitoring center, so that the relevant personnel can be informed at the first time, and carry portable monitoring terminals to accurately assess and properly deal with the oil spills.



Adopting new water pollution traceability technology

Advanced three-dimensional fluorescence mapping technology has been applied to establish a water-quality fingerprint library. When the wastewater treatment plant encounters a toxic shock or an abnormal fluctuation in the water quality of the stormwater system, the incoming water will be carefully analyzed using the three-dimensional fluorescence mapping technology, and the source of pollutants will be quickly locked by comparing the three-dimensional fluorescence spectral characteristics of the incoming water with the data in the characteristic fingerprint library, providing strong support for subsequent disposal.



Providing green products

The Company not only attaches importance to its own green development, but also takes the responsibility of providing more green ecological products, promoting the green and low-carbon development of upstream and downstream related enterprises, and helping the whole society to transform to green and low-carbon development.

Promoting Green Development with Green Products

Carbon fiber composite material

In 2024, the Company participated in the Composite Materials Industry Technology Exhibition and released two new carbon fiber composite products, namely thermoplastic carbon fiber prepreg tape and thermoplastic carbon fiber sheet, which are green and environmentally friendly new materials with recyclable and reusable characteristics. The two new products can be widely used in high-end fields such as high-speed rail, subway, automobile and medical apparatus and instruments.

Expanded polypropylene foam (EPP)

Its products are easy to degrade and recycle, and its environmental friendliness is better than other foaming materials; it is called green foam. In the 24th China International Industry Fair (CIIF) in 2024, the “Green Lightweight EPP Special Material”, which was researched and developed by the Company in cooperation with Sinopec Beijing Research Institute of Chemical Industry, won the CIIF New Material Award. In 2024, the Company’s fourth EPP product, E800BHM, was successfully developed.

Spun-dyeing acrylic fiber

It is widely used in clothing and all kinds of decorative fields. Adopting the spun-dyeing technology to produce colored acrylics can simplify the dyeing process, improve the downstream dyeing wastewater treatment, and avoid the pollution of colored wastewater to the environment.



Developing a circular economy

The Company carried out the Xi Jinping Thought on Eco-Civilization, implemented the requirements for the construction of “Zero Waste City” of Shanghai and “Zero Waste Group” of SINOPEC Group, and has formulated the “SPC Work Program of Zero Waste Enterprise Construction” and the “List of Zero Waste Enterprise Construction Tasks”. It set up the leading group and working group for the construction of “Zero Waste Enterprise”, steadily conducted the work of reducing the quantity at the source, further strengthened the whole-process supervision and informatization management, and continuously improved the level of comprehensive utilization of resources.

The Company’s short-term goal for the solid waste compliant disposal rate and hazardous waste compliant disposal rate is to reach 100% by 2025; the medium- and long-term goal is to stabilize the 100% level by 2030.

Solid waste recycling

The Company carried out source reduction, comprehensive utilization and harmless disposal for construction waste, bulk solid waste and hazardous waste, which are generated in large quantities and difficult to be utilized, so as to significantly improve the level of the Company’s solid waste pollution prevention and control. In 2024, the total amount of solid waste generated was 577,100 tons, the total amount of hazardous waste generated was 65,200 tons, the amount of solid waste comprehensively utilized was 569,200 tons, the comprehensive utilization rate of solid waste amounted to 98.63%, the solid waste compliant disposal rate was 100%, and the hazardous waste compliant proper disposal rate was 100%.

Case Instrumentation equipment repair and recycling

Comprehensively evaluated the instruments of the shut-down units, screened out the equipment with reuse value, and continued to play their roles after technical transformation and adaptive debugging, so as to achieve the repair and utilization of the old and waste resources.

Case Waste oil recycling



The residual oil produced by processing high nitrogen crude oil from Brazil was used as the raw material of the downstream heavy oil catalytic cracking unit to provide raw material guarantee for increasing gasoline production; more than 40 tons of cooling oil in waste transformers were recycled to reduce the cost of hazardous waste disposal; the benzene-containing light slop oil was directly sent to the naphtha pre-hydrogenation unit for recycling through the recycling of slop oil.

Case Disposal of sludge and waste resin

Conduct properly the co-combustion of environmental protection wet sludge and waste resin, which can dispose of 6,000 tons of wet sludge and 300 tons of waste resin every year, so that the solid waste will not be delivered from the plant. While making full use of the waste solid resources, it also saves the objective environmental protection disposal fee.

Case Hazardous waste informatization supervision platform

An information-based hazardous waste supervision platform has been established to realize the automatic collection of data and control of the whole process of hazardous waste, improve the level of specialized, refined and intelligent management, and put an end to the phenomena of unclear classification of hazardous waste and non-standardization of the ledger.

Waste gas recycling

The Company continuously improved the level of waste gas recycling and utilization, focused on the deep management of VOCs, environmental risk prevention and control enhancement, continued to deepen the remediation, and strongly promoted the new model of regional synergistic management. Synergistic governance is realized through waste gas collection and co-combustion.

Case Steam recycling

The Company took the initiative to strengthen cooperation with neighboring industrial parks and enterprises to maximize the use of surplus industrial steam resources and achieve a win-win situation.

Case VOCs deep treatment

The Company implemented VOCs waste gas co-combustion renovation for some boilers and put into use the VOCs deep treatment project, which directly conveyed the VOCs waste gas generated by the Storage and Transportation Department to the Cogeneration Department for co-combustion, thus making a positive contribution to the deep utilization of VOCs and the reduction of waste gas emissions.

Case Recovery of sulfur-containing waste gas

The Company conducted technical research on the sulfur unit for treating refinery tail gas to improve the sulfur recovery rate and reduce the sulfur content by fifteen milligrams per cubic meter year-on-year.

Indicator Name	Unit	2022	2023	2024
Emissions from refinery flare stack	10K m ³	1,478.00	161.00	232.58
Flare gas recovery	10K m ³	5,078.00	6,946.00	7,052.77
Low sulfur flare gas recovery	10K m ³	3,155.64	4,450.56	4,549.50
High sulfur flare gas recovery	10K m ³	1,921.75	2,495.53	2,503.27

Water resource utilization

The Company actively strengthened the control of water intake at source, continued to enhance the water resources conservation and intensive level and the comprehensive utilization efficiency, driven technological progress and new breakthroughs in scientific research and efficiency creation, promoted the upgrading and transformation of the sewage biochemical treatment system for environmental protection and efficiency improvement, and accelerated the cultivation of talents and the construction of the team. The total industrial water intake and water consumption of 10,000 RMB of output value continued to decline, the total fresh water intake in 2024 cumulatively amounted to 36,281,000 m³, the sewage reuse rate reached 53.93%, the circulating water makeup rate cumulatively reached 9.00 %. The Company's water efficiency target is that by the end of the "14th Five-Year Plan" period, under the premise of the existing production scale, the industrial water intake target will be reduced by over 5% as compared with that of 2020, with water savings of more than 5 million cubic meters, and the total amount of water resources intake will be controllable. At present, the Company does not have any problem in seeking and using water sources.

Indicator Name	Unit	2022	2023	2024
industrial water intake	10K tons	3,742	3,646	3,291
consumption of 10,000 RMB output value	tons/10K RMB	8.14	5.95	5.54

Rainwater reuse

Case

The Wei Si Road Stormwater Reuse Project was put into use, and for the first time, the Company realized the direct reuse of stormwater to the circulating water system, breaking through the limitations of traditional stormwater treatment methods. It is estimated that the project can reuse about 50 tons of rainwater per hour.

Solvent wastewater recycling

Case

The Company innovated to use DMF solvent wastewater as reflux liquid of solvent refining tower DA-1108 in the new area of butadiene plant, and successfully recycled 300 tons of solvent wastewater.

Sewage reuse

Case

In order to improve the rate of wastewater reuse, the Environmental and Water Affairs Department has taken a multi-pronged approach. From the source, it precisely regulated the quality of incoming water to the MBR (wastewater reuse) unit, set clear standards for membrane cleaning and continuously optimized the cleaning method according to the actual situation, while it precisely controlled the key parameters, formulated emergency plans, and regularly conducted self-tests with front and back linkage, so as to promote the achievement of the goal of "applying as far as possible". In 2024, the total amount of water produced reached 8,728,700 tons.

Reduce circulating water makeup

Case

The circulating water system has continued to promote the optimization of water plant operation and pump energy-saving revamp, reduced the circulating water makeup rate, and continuously reduced the amount of fresh water intake. In terms of open source, the Environmental Protection and Water Affairs Department has adopted the methods of adjusting water quality index control, improving reagent formula, flexibly adjusting the way and frequency of slime stripping, interconnection and complementarity of neighboring water plants, and strictly implementing statistical evaluation, etc., the water reuse amount of the Company's circulating water system has increased by 10.33% year-on-year, and the water makeup rate has improved by cumulative 7.94% year-on-year, which is the best level of the past years. In terms of cost saving, the Company actively carried out leakage checking and plugging, performance testing, setting internal control indexes and optimizing sewage disposal methods.

Project revamp

Case

The condensate recycling revamp project of the Olefin Department was successfully put into operation, providing support for the implementation of comprehensive technological renovation and quality improvement and upgrading projects; the revamping of No. 5 refining circulating water field was completed to achieve integration and optimization; and the DCS renovation of seven circulating water fields in the circulating water system informatization renovation project was completed.

Scientific research innovation

Case

In 2024, the Environmental and Water Affairs Department carried out scientific research projects in an orderly manner, 11 projects were carried out, 8 patents were applied for and 2 were granted, and Chang Liying's innovation studio was built.

Biodiversity protection

The Company strictly implemented the national “Opinions on Further Strengthening Biodiversity Protection” and Shanghai’s “Implementation Opinions on Further Strengthening Biodiversity Protection”, and protected biodiversity by optimizing the eco-park, building the garden plant, strengthening ecological monitoring, reducing ecological impact, etc. to help the ecological balance, and to realize the harmonious coexistence of human beings and nature.

40.56%

Greening



2024



42.65%

Greening coverage



7.20 Hectare

Sowing flower and grass seeds



Continuously carrying out ecological monitoring (ecological park)

In 2024, the eco-park welcomed three fawns as the new “environmental guardians”, together with the other animals in the park, continued to monitor and reflect on the ecological conditions of the enterprise area.

By integrating water quality monitoring, ecological monitoring and environmental protection exhibition, the eco-park realized the multi-functional combination of production, scientific research, Party building and environmental protection, and further promoted the beautification of the regional environment.



Creating a garden-style plant

The Company took the tree planting and greening as an important means of ecological management, and built the conservation-type green areas with different functional attributes according to local conditions and appropriate greening under the premise of fully guaranteeing production and safety.

In the Arbor Day 2024, SPC planted 128 quercus texana buckleys, laurel, magnolia, red-leaf plums, tangerines, gold-leaf sequoias, etc., totaling 18 types of trees and flowers, with a planting area of nearly 2,500 square meters.



Surrounding environment construction

The roads frequently passed through by SPC employees during commuting have been transformed into distinctive floral corridors: Jinyi East Road now features a hydrangea-themed landscape, Longsheng Road is adorned with ‘Angela’ rose arches and Xiangzhou Road showcases vibrant red Nandina hedges.

The forested area of Weier Road has been reconstructed with flower stand arches, and the atmosphere of the “Wizard of Oz” is becoming more prominent in the forested area, further highlighting the natural beauty and poetic atmosphere of the greenway.

04

SERVING SOCIETY

The Company adheres to high standards in practicing the social responsibility as a central enterprise. The Company takes on the core responsibility as a national strategic scientific and technological force, and enhances the supply and service capacity of high-end petrochemical products. The Company continues to promote the construction of a responsible supply chain, driving the entire supply chain to realize sustainable development. The Company respects and safeguards the rights and interests of its employees and promotes the common growth of employees and the Company. The Company insists on refueling for the people's better life, helping community development and selflessly contributing to the society.

- 36 Fulfilling product responsibility
- 38 Building responsibility supply chain
- 40 Employees' rights and development
- 42 Helping community development
- 43 Dedication to public welfare



Fulfilling product responsibility

In 2024, the Company, in accordance with the requirements of the Guiding Opinions on Central Enterprises Fulfilling their Social Responsibilities in High Standards in the New Era, highlighted its main business, focused on industry, strived to improve the quality of its products and services, and continued to increase its high quality supply, so as to effectively satisfy the demand of the whole society for personalized, differentiated and high-quality petrochemical products.

Focusing on high-end supply

The Company focuses on the current situation and future strategic layout, and makes every effort to promote the industries of large tow carbon fiber and elastomer; pays close attention to the market demand, conducts in-depth research on the transformation and upgrading of the product structure of refining, aromatics and olefins, and C5, etc., and intensifies the efforts of research and development and promotion of the "high-end + customized" products; and actively develops the productivity of the new quality, continues to be in the forefront of the traditional track and accelerate the layout of the emerging track, so as to inject new kinetic energy into the Company's high-quality development.

Carbon fiber and composite materials

The Company carried out overall layout in general-purpose grade, large tow, small tow and high-performance carbon fiber products, accelerating the extension of downstream industrial chain of carbon fiber, expanding the application scenario of carbon fiber composite materials, enlarging and strengthening the carbon fiber industry, and assisting the transformation and upgrading of China's manufacturing.



The Company's large tow carbon fiber is used to manufacture the world's longest onshore wind turbine blades

In 2024, the Company's 48K large tow carbon fiber wind power special material was used by Sany Renewable Energy in the production of wind turbine blades, the first batch of 131 meters of the world's longest onshore wind turbine blades successfully rolled off the production line, and this wind turbine "jumbo" successfully refreshed the industry record.

The wind turbine blade has excellent mechanical properties, highlighting the significant advantages of large tow carbon fiber wind turbine special material in solving the weight reduction and performance enhancement of large-scale wind turbine blade, and the application prospect is very broad. The Company will continue to give full play to the advantages of the large tow carbon fiber industry, actively explore the wind power market, and promote the continuous innovation of wind power blade technology.

The Company's large tow carbon fiber composite rebars are successfully applied to heavy-duty booms

In 2024, the Company's newly developed 12mm large tow carbon fiber composite rebars were successfully applied to the heavy-duty boom project in Midea's Global Innovation Park in Shanghai after rigorous testing, marking another important breakthrough of the Company's carbon fiber composite technology in the engineering field.

The material exhibits superior mechanical properties under the same load conditions and maintains stable performance in complex and harsh environments, extending service life. In addition, the composite material requires no painting or maintenance, which significantly reduces the cost of use.



The Company won the new material professional award in the international industrial fair

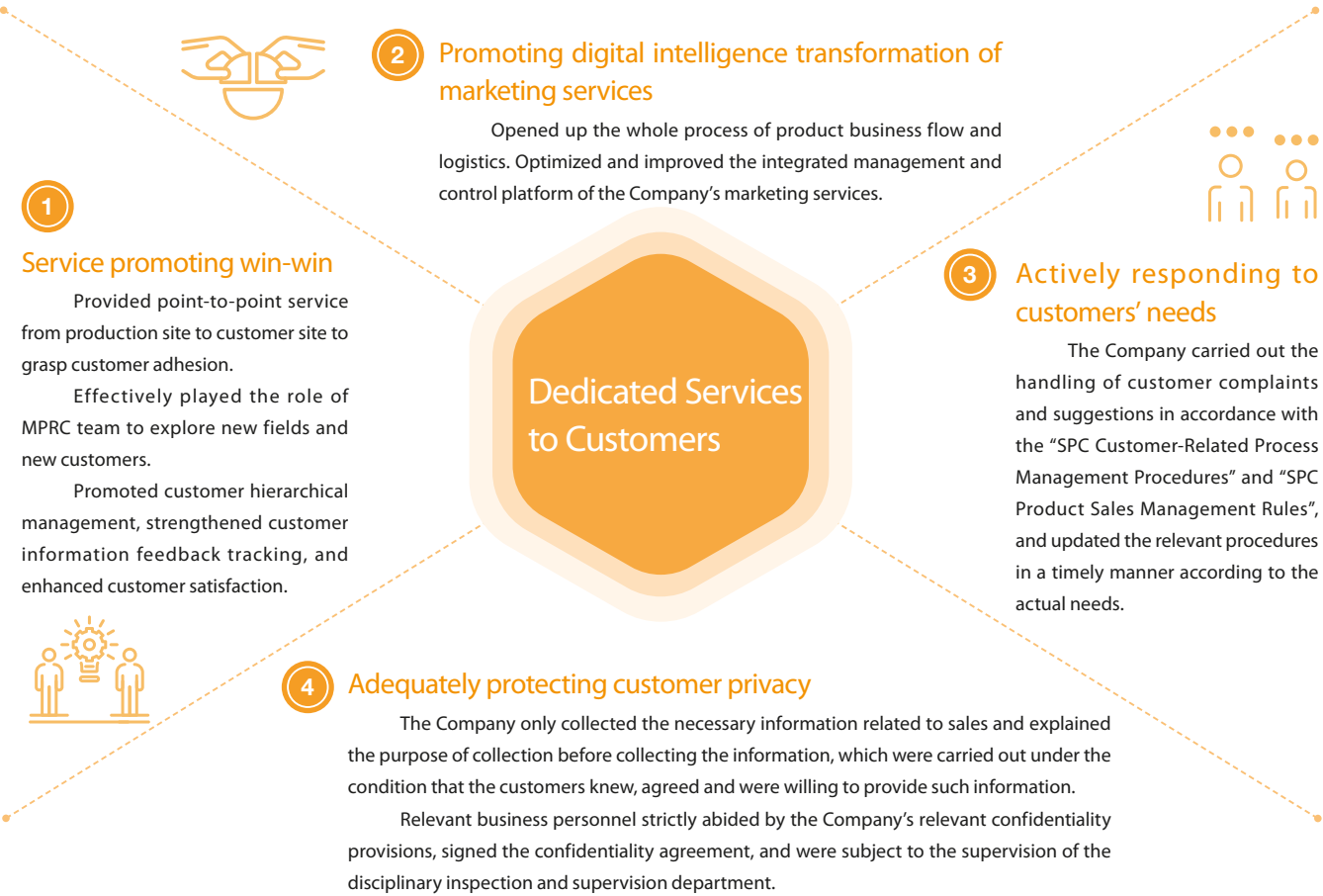
At the 24th China International Industry Fair (CIIF) 2024, the green and lightweight EPP (Expanded Polypropylene Foam) special-purpose material jointly developed by the Company and Sinopec Beijing Research Institute of Chemical Industry won the New Material Professional Award of the CIIF with its excellent performance.

At the fair, the Company carefully planned an exhibition with four themes: wind energy, luminous energy, hydrogen energy and energy storage, and displayed a variety of carbon fiber and its composite materials, synthetic resin products and other innovations, many Chinese and foreign manufacturers and visitors showed a very high degree of attention to the Company's products.

Dedicated Service to Customers

In 2024, the Company aimed to maximize the overall benefits of the enterprise, adhered to the policy of “quality, quantity and customer satisfaction”, firmly grasped the market demand, further enhanced the awareness of service and continuously pursued customer satisfaction. The Company strictly abided by the Law on Protection of the Rights and Interests of Consumers, the Anti-Unfair Competition Act and other laws and regulations applicable to the advertising, labeling and privacy of products and services. We responded positively to customer needs, effectively safeguarded customer rights and interests, and fully protected customer privacy.

In 2024, there were no product complaints and the Company has achieved continuous positive growth in satisfaction with its products and services.



Pursuing Excellent Quality

The Company strictly abided by the Quality Law, Measurement Law, Standardization Law and other laws and regulations, adhered to the quality policy of “Quality is always one step ahead”, formulated and continuously improved the quality management system such as “SPC Quality Management Measures” and “Implementing Rules for the Management of Quality Accidents (Incidents) of SPC”, and deeply promoted the overall quality management in accordance with the requirements of the integrated management system of the Company. The Company actively applied the advanced quality management models and tools to carry out quality technology research, and constantly pursue excellent quality. The Company paid attention to the technological development of the industry, actively participated in the formulation and revision of 11 national and industrial standards, and promoted the high-quality development of the industry.

In 2024, the Company's product sampling pass rate was 100%, there were no recalls of sold products due to quality issues, and there were no product recalls due to safety and health reasons.

The Company set up the 18th staff innovation studio

In 2024, the Company's “Shanghai Intelligence Inspection” innovation studio was put into service, which is the Company's 18th employee innovation studio.

The studio focuses on the Company's sustainable development, safety inspection and research to analyze and solve technical problems, and carry out technological breakthrough, management innovation, learning and exchange activities. It is dedicated to serve the development of enterprises by using the first-class testing technology and innovation results, so as to provide a solid foundation for building the first-class analysis and inspection base.



Building the responsible supply chain



Promoting green procurement and practicing green and low-carbon strategy

In accordance with the state's preferential tax policies for enterprises purchasing three special equipment for "energy and water conservation, environmental protection, and work safety", the Company achieved the goal of reducing costs and increasing efficiency by expanding the scope of green product procurement, broadening the tax rebate channels for green products, and focusing on purchasing energy-saving equipment.



Expanding the scope of green product procurement

The Company vigorously promoted green product procurement, controlled the source of project plans, and included components related to package unit into the scope of green procurement. According to the completed list of three special equipment tax rebate catalogs, the Company carried out the work for 90 items of materials, such as boilers, zero-discharge desulfurization wastewater systems, transformers and air-conditioning units, etc.

Expanding tax refund channels for green products

This is mainly reflected on that the tax rebate is conducted for pumps, air-conditioning units and other package units, of which some of the materials meet the Tax Preferential Catalog. For example, the equipment that satisfies the tax rebate conditions in general contracting projects such as large tow carbon fiber, etc.



Focus on procuring energy-saving equipment

By the end of 2024, more than 400 pieces of energy-saving equipment have been purchased, including centrifugal pumps, electric motors, frequency converters, LED lights and toxic gas detectors. Among them, high-efficiency centrifugal pumps and electric motors effectively reduced energy consumption in the production process; intelligent frequency converters can automatically adjust the power output according to the actual demand, avoiding energy wastage; and LED energy-saving lamps were fully replaced, which ensured the quality of illumination while significantly reducing power consumption.

Reduce environmental risks and strengthen the implementation of suppliers' responsibility

In order to reduce the risk of environmental protection, the Company adopted traceable whole-process management for waste materials, paints and coatings, hazardous chemicals, etc., and strengthened the implementation of responsibility.

Case 1

In 2024, the partially dismantling project of polyester west plant conducted the whole tracking and control in disposing the waste materials, from environmental requirements for waste materials delivery, ledger management, recycling party's site management to traceability management, reducing the waste materials until the environmental risks of the terminal disposal.



Case 2

Paint and coating drums supplied by the supplier that were found and verified to be unlined with PE liners (bags) were traced back and the supply agreement was terminated. For packaging drums identified as non-hazardous waste, if the supplier is required to recycle them, the supplier shall recycle them free of charge, and the disposal of the packaging drums shall comply with national environmental protection requirements.



Case 3

On the basis of more than 90 kinds of hazardous chemicals management ledgers established and the collection of "one book and one label", the Company has further improved its management, updating the ledgers in real time and increasing the content of "one book and one label", so as to ensure the timeliness and traceability of information. It also clarified the "first-handling responsibility system" of the counterpart operator, and strengthened the implementation of responsibility.



Optimizing reserve management, and improving equipment utilization efficiency

In terms of reserve management, combined with the current inventory reality, the Company continued to promote the “utilization of overstocked materials by substitution and retrofit” by means of controlling inventory and adjusting structure, which effectively revitalized existing inventory, further optimized inventory structure and improved equipment utilization efficiency.

EVA project equipment transfer

On 28 October, 2024, the material transit of the imported package unit transfer for the EVA (ethylene vinyl acetate copolymer) project was initiated, with a total of 112 boxes and more than 560 tons of materials transported. It effectively revitalized idle assets.

EVA project materials are of high value, the transfer realized the reuse of idle equipment and avoided the loss risk caused by long-term storage of equipment. The Company checked the material storage environment and the completeness of the storage list one by one, and stored the related materials in separate areas by attaching tags to ensure clear materials accounting in the transit process.

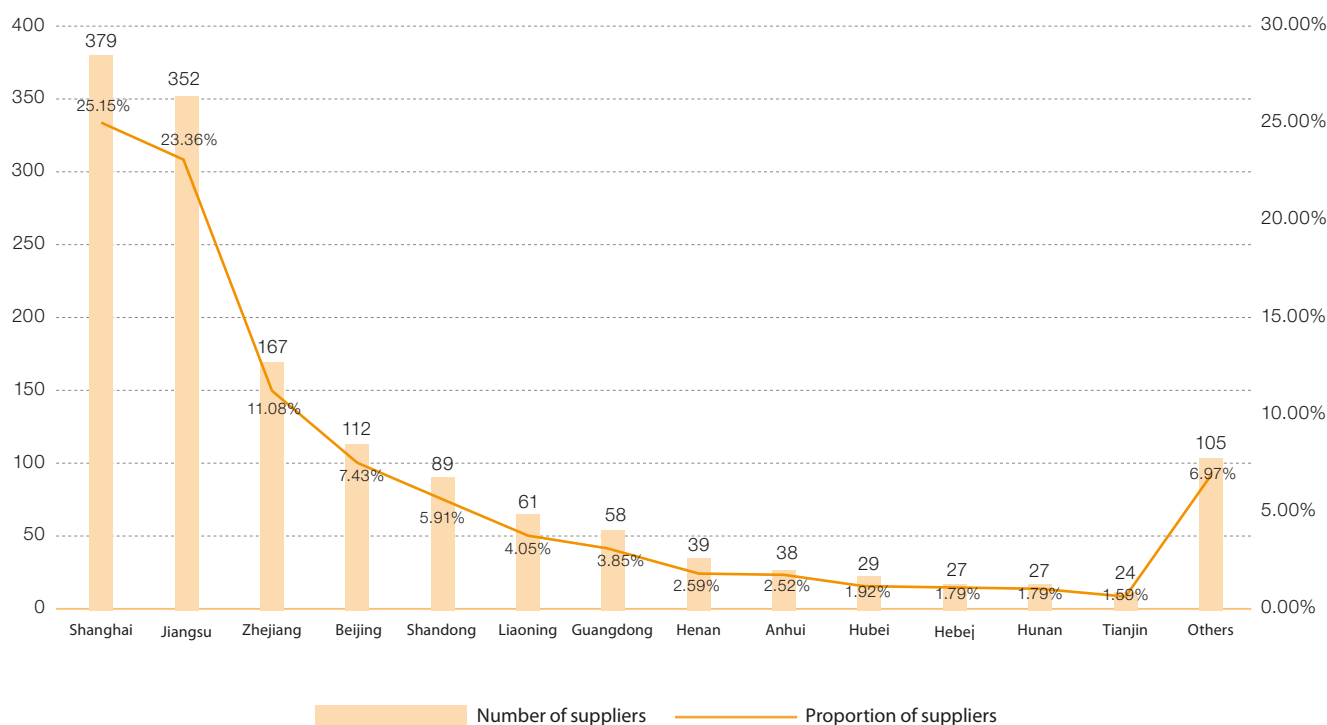
Repair and utilization of instrumentation equipment

In 2024, the Company carried out the instrumentation equipment repair and utilization program, saving instrument procurement costs. A large number of idle and end-of-life instrumentation equipment were reused, and the overall utilization rate of instrumentation equipment was significantly improved.

The residual material inventory management system has been improved to classify, register and store the instrument-related residual materials generated in the process of project construction and plant overhaul in detail, to ensure that the residual materials can be traced and deployed, and to improve the efficiency of residual material flow and the overall utilization rate. The residual material sharing platform has been established to realize rapid deployment and reuse of residual materials to avoid waste of resources.

At the end of December 2024, there were 1,507 suppliers with whom the Company had a service relationship.

Number and proportion of suppliers by region



Note: The number and proportion of suppliers included in other part of the chart are: Jiangxi (18, 1.19%); Sichuan (18, 1.19%); Fujian (14, 0.93%); Shaanxi (11, 0.73%); Heilongjiang (11, 0.73%); Gansu (10, 0.66%); Chongqing (8, 0.53%); Overseas (5, 0.33%); Guangxi (2, 0.13%); Jilin (2, 0.13%); Hainan (2, 0.13%); Inner Mongolia (1, 0.07%); Ningxia (1, 0.07%); Shanxi (1, 0.07%); Yunnan (1, 0.07%).

Employees' rights and development

The Company is committed to building a harmonious enterprise, providing inclusive and fair employee rights and interests, continuously enhancing employees' happiness and sense of belonging with sincere services, and integrating the realization of employees' personal values with the Company's long-term development.

Inclusive and fair, effectively protecting the rights and interests of employees

The Company strictly complies with the Labor Law of the People's Republic of China and the Trade Union Law of the People's Republic of China, etc. The Company reviews and confirms the employment practices and systems every year, and provides fair development opportunities and compensation & benefits for employees of different ethnicities, genders, religious beliefs and cultures in the recruitment, promotion, dismissal, and day-to-day management, etc. The Company effectively protects human rights by auditing the recruitment of new employees and daily management of human resources, and prohibits the use of child labor and forced labor. In 2024, the Company did not have any incidents of child labor and forced labor. In 2024, the total number of employees was 7,052 persons, and the employee turnover rate was 0.57%.

Protection of statutory benefits

- 100% signed collective contracts
- 100% joined the labour union
- Enjoyed fair remuneration
- Seven insurances and three pensions
- Right to rest and vacation
- Safety and health protection
- Avoid overtime work wherever possible, and pay fairly for overtime work when necessary



Provision of supplementary benefits

- Heat-prevention subsidy
- Birthday gifts, labor union benefits, etc.
- Free youth apartment and housing subsidy
- Working meal subsidy
- Vacation and convalescence subsidy
- Supplementary pension + Supplementary housing fund + Supplementary medical insurance
- Shanghai employees' mutual aid insurance + Special basic insurance for labor union members

Percentage of female employees

17.2%

Percentage of employees under 30 years old

20.89%

Percentage of dispatched workers

1.73%

Creating a warm and harmonious staff home

The Company adheres to the concept of "no employee's interest is a trivial matter", and is committed to improving the happiness index of employees, meeting the diversified needs of employees for rest, recreation and culture, and creating a "family culture" in which they can live and work in peace and contentment. The Company has been selected as "Shanghai Pilot Unit for Improving Employees' Quality of Life".



Reform and innovation to improve the level of service to employees

Reform and innovation in labor unions, remuneration and other aspects is an important part of the Company's management modernization and innovation, which can continue to enhance the level of service to employees.

Reform of labor union work, opening up channels for the expression of demands

- Strengthen the assessment of labor union family-building services, and more employees participate in the assessment of labor union satisfaction.
- Evaluate the special work of labor union and create a number of brands of SPC's labor union work.
- Strengthen the training of labor union cadres to enhance their ability to serve employees.
- Open up channels for expressing daily demands with the help of employee representatives' inquiry meetings.

Digital empowerment, supporting the upgrading of assistance to the needy

- Relying on digital empowerment, track the dynamics of employees in difficulty in a timely manner, to support accurate help.
- Optimize the process of claims for the employee assistance mutual fund, and upgrade various types of applications for assistance from offline to online filing to provide convenience for employees.



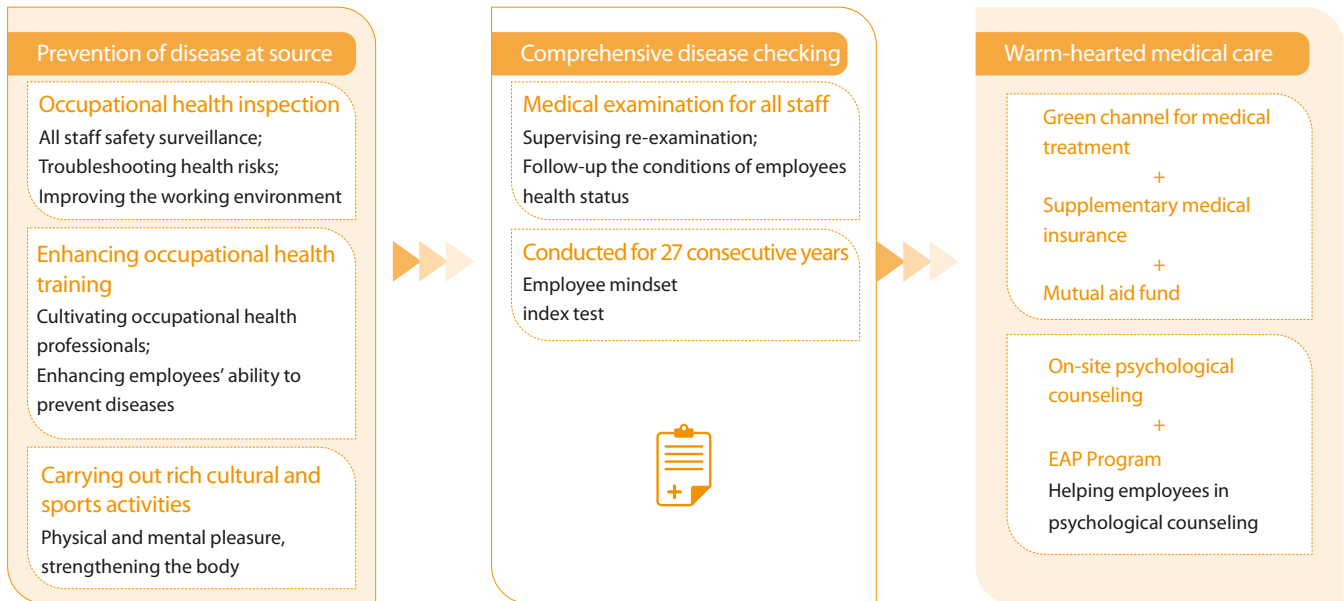
Remuneration optimization, motivating employee value realization

- Establish the remuneration-performance linkage orientation, promote the optimization of salary distribution, improve the closed loop of salary management system and motivate employees to combine the realization of personal value with the long-term development of the Company.
- Improve the quantitative assessment of employees' performance at the grassroots level to provide a basis for the optimization of salary distribution.



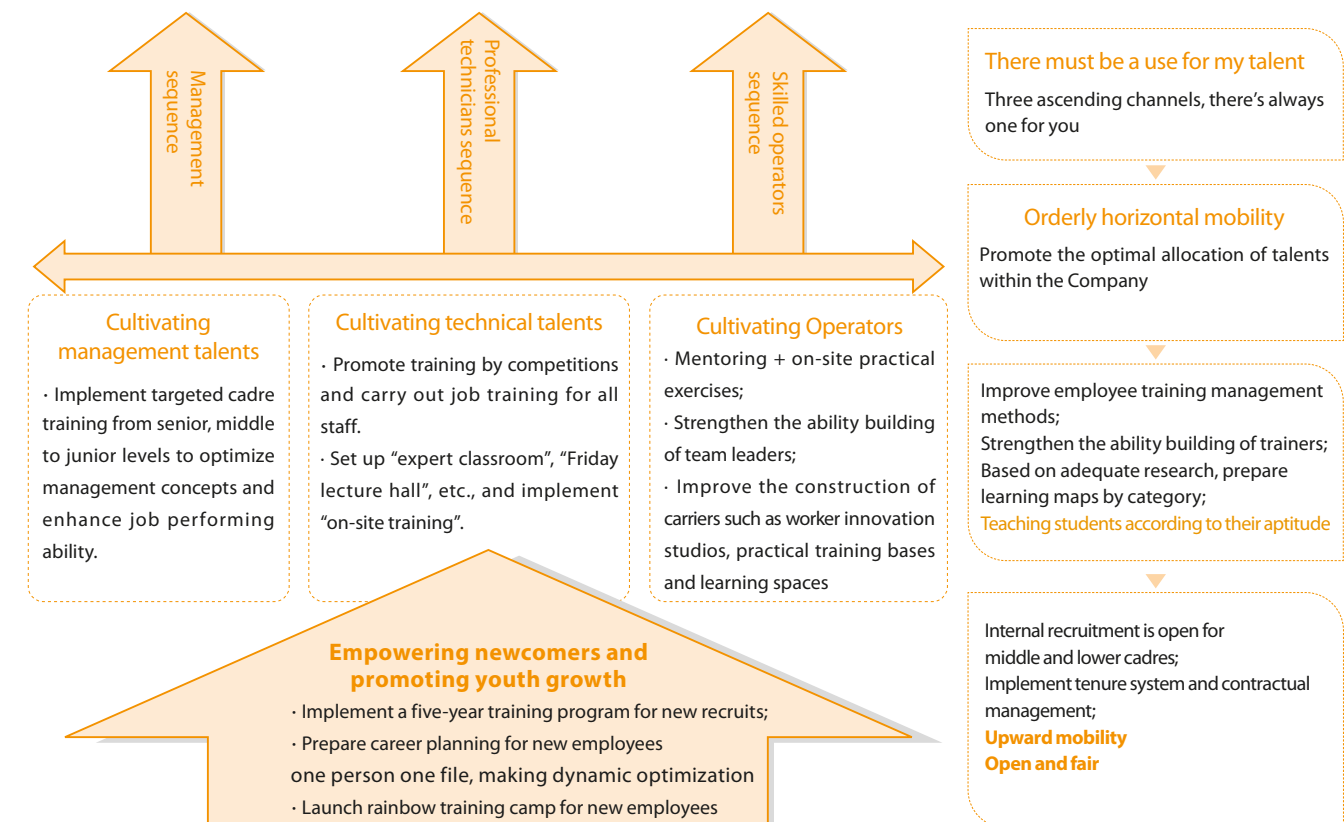
Safety and health escort, guarding employees' physical and mental health

The Company complies with the "Work Safety Law of the People's Republic of China" and the "Law of the People's Republic of China on Prevention and Control of Occupational Diseases", strengthens multi-departmental coordination of Great Health Management, and carries out the "Safety and Health Escort" action, which is committed to building a healthy enterprise.



Selection and training of talents, opening up diversified growth channels

The Company adheres to the concept of "talent is the first resource", follows the Vocational Education Law of the People's Republic of China, improves the top-level design of talent cultivation and the management mechanism of talent growth channels, and builds a fair and diversified upward channel as well as a smooth horizontal flow channel.



Helping community development

The Company plays an important role in the high-quality development of the Yangtze River Delta, Shanghai and Jinshan District by linking up with the neighboring regions and jointly cultivating new quality productivity. The Company complies with the Enterprise Income Tax Law, Value Added Tax Law, etc., and fulfills its obligation to pay taxes in good faith.

Integrating into Yangtze River Delta Integrated Development

The Company actively contributed to the construction of innovation network, development of chemical industry, construction of energy facilities, and construction of security system in the integrated development of Yangtze River Delta.

Co-construction of innovation networks	Held and participated in major exhibitions and forums, and organized “innovation fairs” to promote the dissemination and industrialization of new technologies.
Co-construction of chemical and new materials cluster	Co-constructed Dushan Port A3 Terminal and other important facilities to promote the synergistic development of chemical and new material industries in Yangtze River Delta
Co-construction of energy facilities	Co-constructed hydrogen energy infrastructure in Yangtze River Delta to promote regional energy transition
Co-construction of security system	Formed the National Hazardous Chemicals Emergency Rescue SPC Team, upgraded the emergency rescue equipment, and regularly conducted joint rescue drills with neighboring units, co-built the safe sea walls on the north coast of Hangzhou Bay, and participated in the joint rescue drills for super-strong typhoons and mega-floods.

Making contributions to stabilizing the development of Shanghai, and promoting the cultivation of new quality productivity

The Company plays an important role in stabilizing growth, and employment and the development of new productivity in Shanghai.

Stabilizing growth and employment	Cooperated with relevant departments of Shanghai and Jinshan District to overcome challenges in the process of stabilizing growth and employment
Exploring new tracks	Undertook carbon fiber research and development and manufacturing and other major tasks to explore the road for the development of new materials industry
Disseminating management concepts	Invited senior executives of listed companies in Shanghai to have talks and exchanges to promote mutual learning of experience in corporate governance modernization, investment relationship management, corporate culture, and cultivation of new quality productivity.
Assisting in the construction of the Shipping Center and Aviation Hub	Co-constructed the Jinhong aviation oil pipeline and other important facilities to ensure energy supply for Shanghai's construction of an international shipping center and a world class aviation hub
Sharing educational resources	Provided internship places for higher education institutions and vocational schools specializing in chemical industry, new materials and other related fields in Shanghai, and assisted building up the Shanghai Industrial Museum as a base for the history education of Shanghai's industrial development and patriotism education.

Linkage development with Jinshan District, creating enterprise-local government co-construction brands

The Company established the normalized regional linkage development mechanism with the Jinshan District etc., doing a good job for people's livelihood and creating a brand of enterprise-local government co-construction.

Normalized linkage development mechanisms	Established the special institution for joint development with the Jinshan District Government etc. In January 2024, Signed the strategic cooperation agreement with the Jinshan District Government.
Participating in regional policies making	The Company has a number of representatives of Jinshan District People's Congress, participating in the development of regional green low-carbon transition policies.
Co-promoting industrial upgrading	Jointly promoting the development momentum for regional transition, the Company laid out the innovation chain + industrial chain of chemicals and new materials, and promoted the transformation and upgrading of industries in Jinshan District, making contributions to the “North-South Transformation” of Shanghai.
Building a beautiful home together	Since 2013, the Company has invested more than RMB 5 billion in the “Blue Sky and Green Water ” program, participated in several rounds of Shanghai's Three-Year Action Plan for Environmental Protection, and Jinshan District's Comprehensive Environmental Improvement, and built a beautiful bay on the north coast of Hangzhou Bay.
Building a healthy city Together	Collaborated with Jinshan Hospital to enhance regional medical services.
Sharing science education resources	Opened the SPC Exhibition Hall and the Company's environmental protection facilities as a regional base for science education, environmental protection education and patriotism education; organized 44 “Public Open Day” activities throughout the year to enhance public understanding and support for the petrochemical industry.
Creating the brand of “One Heart for the Coastal Area” for enterprise-local government cooperation	In terms of electricity, water, street lights, roads, libraries and other facilities, the Company did a good job for people's livelihood for the surrounding communities, and created a coastal neighboring ecosystem of “coordinated development of industry, synergy governance of security and environment”.

Dedication to public welfare

The Company vigorously undertakes social responsibility, provides support in the field of national strategy, and taps the potential for creating new quality productivity; it is enthusiastic about public welfare undertakings, making contributions to rural revitalization and “livable Jinshan”; the “Starry Sky” volunteer team is committed to providing convenience for the people, benefitting the people, and serving the employees; schools, communities and plant areas are all over the “Starry Sky”.

Serving social affairs

Innovation-driven development

Implemented science and technology innovation optimization of organizational mechanism, operational system, and cooperation platform, and continued to promote the key core technology breakthrough and development, so as to assist the Company's high-quality development with scientific and technological innovation, and to enhance the source power of the development of the enterprise.

Yangtze River Delta integration

Promoted environmental protection, low-carbon and safety linkage and joint governance, facilitated environmental protection integration and collaborative governance in the Hangzhou Bay region, and propelled the harmonization of the collaborative governance of petrochemical volatile organic compounds (VOCs) in the three areas i.e., standards, monitoring and enforcement.

Linkage and synergy between local government and enterprise

Signed a strategic cooperation agreement with Jinshan District, to jointly promote the high-quality development of green chemical industry, realize safe, environmentally friendly, and efficient governance, and enhance the high quality of life in the region in accordance with the principle of “close cooperation, complementary advantages, common development, mutual benefit and win-win”.

Enthusiasm for public welfare

Purchasing supportive products to help revitalize the countryside

With the aid of the “Hundred Products, Hundred Counties” brand, the Company has helped to promote rural revitalization in Pu'er City, Yunnan Province, and has implemented RMB 3,851,700 of consumer assistance funds. Through external donation channels, the Company provided RMB 500,000 to support the rural revitalization industry and public welfare projects in Pu'er City, Yunnan Province.



Carrying out educational assistance to consolidate poverty alleviation

Linking up with the Education Bureau of Jinshan District and the government of Bange County of Tibet, the Company invested 1.51 million RMB in cash to help the middle school in Bange County of Tibet, and completed the on-site research, the third batch of backbone teachers coming to Shanghai for training, donating books, organizing party building co-construction as well as campus cultural activities in 2024.

Adopting public welfare projects around the urgent problems and worries

In 2024, the Company carried out 349 times of joint construction activities with more than 60 villages and neighborhood party organizations, and adopted 14 local livelihood projects to create a good external environment for the Company's reform and development. Through external donation channels, the Company has supported education in Jinshan District with RMB 1.9 million.



Enhancing volunteer service

Number of volunteer items, hours

- There were 19 volunteer service teams, and 76 volunteer services were carried out in 2024, with a total of 12,393.5 hours of service.

Number of volunteers, person-times

- During the “March 5 Learning from Lei Feng Month”, 41 volunteer services were provided, 457 people participated in volunteer services, and a total of 5,045 person-times, including students and residents, were served.

Voluntary areas

- We provided school students, community residents, and company employees with services such as student support, community cleanup, workplace injury prevention, and 5S management.

ESG

key performance table



Environmental Performance (E)

Indicator	Unit	2024	2023	2022
Pollutant emissions				
Chemical Oxygen Demand (COD) emissions	tons	622.41	632.38	719.32
Ammonia nitrogen emissions	tons	3.75	3.77	11.11
Waste gas emissions	100 million m ³	422.03	465.20	405.36
Sulfur dioxide (SO ₂) emissions	tons	181.12	180.43	152.02
Nitrogen oxide (NOx) emissions	tons	968.65	1,096.52	954.84
Hazardous waste emissions	10K tons	1.36	1.45	1.63
Non-hazardous waste emissions	10K tons	56.34	61.51	59.18
Suspended particles and particulate matter (PM) emissions	tons	107.68	92.74	77.60
Discharge amount of wastewater	10K tons	2,345.41	2,199.34	2,434.60
Volatile organic compound (VOCs) emissions	tons	2,276.27	2,295.83	2,385.60
Energy consumption				
Total industrial energy consumption	10K tons of standard coal	647.6	761.7	518.6
Comprehensive energy consumption of industrial output	Tons of standard coal/10K RMB	1.07	1.21	1.09
Natural gas consumption	100 million m ³	4.80	5.08	4.67
Coal consumption	10K tons	153.37	167.55	173.52
Crude oil consumption	10K tons	1,334.58	1,413.07	1,045.33
Combined refining energy consumption	Kilograms of standard oil/ton	51.97	52.04	57.40
Electricity consumption (excluding external power supply)	10K kWh	266,586	289,618	266,993
Renewable energy consumption	tons	23,518	17,668	58.99
Proportion of renewable energy consumption	%	0.87	0.51	0.002
Water resources				
Total industrial water intake	10K tons	3,291	3,646	3,742
Water consumption per unit of output	Ton/10K RMB	5.54	5.95	8.14
Industrial water reutilization rate	%	98.0	98.02	98.05
Water consumption for processing ton of oil	ton/ton	0.40	0.38	0.48
Water drainage for processing ton of oil	ton/ton	0.12	0.12	0.15
Greenhouse gas emissions and management				
Total CO ₂ emissions	10K tons	807.59	900.46	835.44
-Scope I emissions	10K tons	780.34	873.18	809.37
-Scope II emissions	10K tons	27.25	27.28	26.07
Carbon dioxide emission intensity	Ton/10K RMB	1.36	1.47	1.82
Carbon trading volume	10K tons	43.19	0	10.00
National certified voluntary emission reductions	10K tons	0	0	0

Social Performance (S)

Indicator	Unit	2024	2023	2022
Employment and Training				
Total number of employees	person	7,052	7,526	8,007
-Number of male employees	person	5,839	6,210	6,545
-Number of female employees	person	1,213	1,316	1,462
-Number of employees aged 30 and under	person	1,473	1,305	1,054
-Number of employees aged 31 to 50	person	2,599	3,005	3,477
-Number of employees aged 51 and above	person	2,980	3,216	3,476
-Total number of non-regular or dispatched workers	person	122	129	153
-Percentage of localized employment	%	61.30	82.37	93.08
-Number of local employees	person	4,323	6,199	7,453
Number of demobilized soldiers	person	429	504	/
Proportion of demobilized soldiers	%	6.08	6.70	/
Number of disabled employees	person	63	79	86
Proportion of disabled employees	%	0.89	1.05	1.07
Employee turnover rate*	%	0.57	0.66	0.30
-Male employee turnover rate	%	0.47	0.46	0.22
-Female employee turnover rate	%	0.10	0.20	0.07
-Turnover rate of employees aged 30 and below	%	0.48	0.50	0.24
-Turnover rate of employees aged 31 to 50	%	0.07	0.13	0.06
-Turnover rate for employees aged 51 and above	%	0.01	0.03	0
Occupational health				
Annual number of work-related deaths of employees	person	0	0	0
Annual industrial injury mortality rate of employees	%	0	0	0
Number of working days lost due to work-related injuries	day	2,894	1,613	3,540
Incidence of occupational diseases	%	0	0	0
Number of people trained in occupational safety and health	Person-time	58,128	52,447	45,910
Occupational health examination rate	%	100	100	100
Employee vocational training**				
-Participation rate in training for senior managerial personnel	%	100	100	/
-Participation rate in training for mid-level managerial personnel	%	100	100	/
-Participation rate of grassroots staff training	%	100	100	/
-Average duration of senior manager training per person	hour	186	155	/
-Average duration of medium manager training per person	hour	165	102	/
-Average duration of grassroots staff training per person	hour	142	126	/
Supply chains				
Bidding procurement rate	%	86.45	88.30	88.38
Vendor direct supply rate	%	98.46	99.34	99.66
Proportion of suppliers with ISO14000 environmental management system certification	%	71.20	69.22	65.73
Proportion of supplier localization	%	25.15	25.96	29.32
Proportion of localization	%	27.18	28.00	28.21

* The employee turnover rates in this report are all domestic data. The Company has no oversea employees.

** There is no statistical data for the average training hours by gender.

Indicator	Unit	2024	2023	2022
Paying taxes according to the law	100 million RMB	135.92	128.18	136.65
Labor contract signing rate	%	100	100	100
Collective contract coverage	%	100	100	100
Social insurance coverage	%	100	100	100
Funding to support neighboring regions and community development	10K RMB	788	905	994
Customer and product responsibility				
Customer satisfaction	%	99.93	99.67	99.11
One time resolution rate for customer complaints by telephone	%	100	100	100
Product sampling inspection pass rate	%	100	100	100
Percentage of total products sold or shipped that need to be recovered for safety and health reasons	%	0	0	0
Technological innovation				
Amount of R&D investment	10K RMB	17,395.3	18,697.8	13,051.6
Proportion of the amount of R&D investment in total revenue	%	0.20	0.20	0.16
Number of R&D staff	person	153	159	179
Percentage of R&D staff	%	2.17	2.11	2.24
Patent applications for inventions	item	100	100	83

Governance performance (G)

Indicator	Unit	2024	2023	2022
Compliance and due diligence				
Coverage of anti-commercial bribery and anti-corruption training	%	100	100	100
Number of embezzlement lawsuits filed and concluded against the Company and employees	case	0	0	0
Number of lawsuits or significant administrative penalties resulting from the Company's unfair competition behavior	case	0	0	0
Amount involved in lawsuits or penalties due to the Company's unfair competition behavior	RMB	0	0	0
Safety governance				
Major fire and explosion	case	0	0	0
Major environmental pollution accident	case	0	0	0
Major occupational disease hazard accident	case	0	0	0
Major chemical leakage accident	case	0	0	0

Basis of presentation of key data

Hazardous waste: Solid, liquid, gas and other waste that may cause harm to human health and the natural environment because of its toxicity, corrosiveness, infectivity, radioactivity or other characteristics (relevant regulations and standards mainly include the Law of the People's Republic of China on Prevention and Control of Solid Waste Pollution to the Environment and the List of Hazardous Wastes, as well as a series of national standards).

Non-hazardous waste: Solid waste not included in the category of hazardous waste is regarded as non-hazardous waste, which generally does not have obvious toxicity, corrosiveness, infectivity, radioactivity and other hazardous characteristics.

Accounting method for major pollutant emissions: It has been connected with the emission license and environmental protection tax, and the total amount of pollutant emissions is accounted for by the actual measurement method. The data in the report are based on the provisions of the emission license, and the measured method is used to account for the emission data.

Total industrial energy consumption: refers to the data obtained after converting the physical amount of various energy actually consumed by the Company in the course of production and life in accordance with the calculation method and conversion coefficients stipulated in the SINOPEC Comprehensive Statistical Reporting System 2022. The calculation formula is as follows: total energy consumption (tons of standard coal) = Σ Physical amount of energy actually consumed in the enterprise production X Conversion coefficient. The total energy consumption is calculated by multiplying the actual physical energy consumption of the enterprise by the conversion coefficient.

Total carbon dioxide emission: The Company defines its corporate legal entity as the accounting boundary for greenhouse emissions from all production facilities under operational control of the Company. The scope of facilities includes production units, auxiliary systems and subsidiary systems. The accounting method is ISO14064 standard, with emission factors prioritized based on the measured values (measured calorific values of coal, petroleum coke, flare gas, and C2 recovery gas) and supplemented by the default values stipulated in ISO14064 standard where measured values are unavailable. The Company currently conducts accounting for Scope I and Scope II only; Scope III is not accounted for at this time due to lack of channels to collect activity data. The Company has a very small amount of HFCs fillers for water chillers and SF6 gases for high-voltage switch insulation, which accounts for only 0.02% of the Company's total carbon emissions in terms of equivalent carbon emissions. The Company conducts daily patrol inspections of water chillers and high-voltage switchgears in strict accordance with the requirements of the system, and if leaks are found, they will be eliminated in a timely manner to minimize the chances of leakage.

Scope 1 emissions: The total amount of carbon dioxide emissions from stationary, mobile, process, and fugitive sources generated by the Company's production operations.

Scope 2 emissions: Indirect carbon dioxide emissions resulting from the consumption of purchased electricity and purchased heat (steam).

Formula for calculating carbon dioxide emission intensity: Carbon dioxide emission intensity = Carbon dioxide emissions / Main business income (in 10K RMB).

Occupational health examination rate: The Company carries out the work of employees' occupational health surveillance in strict accordance with the "Technical Specification for Occupational Health Surveillance" and other requirements, standardizes the occupational health examination of the employees before, during and after their employment, achieving 100% occupational health examination rate, and 100% intervention rate of abnormal personnel such as those with occupational contraindications.

Employee turnover rate: Turnover Rate Formula: Number of departures in the current year/Total number of employees at the end of the current year. The employee turnover data in this report pertains exclusively to domestic operations, as the company does not have any overseas employees.

Total amount and percentage of packaging materials used for finished products: Not applicable. Due to the variety of packaging materials used by the Company, involving iron, steel, wood, plastic, woven bags, etc., relating to various types, including barrels, boxes, bags, etc., with a wide range of sizes, and some of the packaging can be reused, the Company does not have the actual conditions to comprehensively count the number of packages.

Third-party authentication report

Written Evaluation Comments on Corporate Environmental, Social and Governance Report

No.

Title of Report	
Environmental, Social and Governance Report 2024 (ESG Report)	
Corporate Name	SINOPEC Shanghai Petrochemical Co., Ltd.
Corporate Profile	<p>SINOPEC Shanghai Petrochemical Co., Ltd. (hereinafter referred to as "SPC"), a subsidiary of China Petroleum & Chemical Corporation, is located in Jinshan District, Shanghai, and is one of China's major integrated refining and chemical companies, which produces a variety of refined oil products and chemical products mainly through petroleum processing</p> <p>The predecessor of SPC is Shanghai Petrochemical Complex, which was founded in 1972. In 1993, after the standardized restructuring of the shareholding system of state-owned enterprises, SPC became the first joint-stock company in China whose shares were listed in Shanghai, Hong Kong and New York simultaneously.</p> <p>In 2024, the Company's MSCI ESG rating was upgraded to Class BBB and Wind ESG rating was upgraded to Class A; The Company was honored as one of the Top 100 Listed Companies in China in terms of Wind ESG Best Practices, and the Company's project was selected as the best practice case in sustainable development for listed companies in 2024.</p> <p>Company Address: No. 48, Jinyi Road, Jinshan District, Shanghai Postal Code: 200540 Tel.: +86 (21) 57941941; Fax: +86 (21) 57940050; E-mail: spc@spc.com.cn; Website: http://www.spc.com.cn.</p>
Release of the Report	The 17th Corporate Social Responsibility (CSR) report and the third ESG development report
Basis of Evaluation	<p>GRI Sustainability Reporting Standard (GRI Standard)</p> <p>ISO 26000: Guidance on Social Responsibility</p> <p>China Corporate ESG Report Rating Standards (2025)</p> <p>China Corporate Social Responsibility Reporting Guidelines CAS-ESG 6.0</p>
Evaluation Method	<p>The evaluation method primarily conducts a written evaluation of SPC's Environmental, Social and Governance Report 2024 (hereinafter referred to as "the Report") in accordance with the requirements of the China Corporate ESG Report Rating Standard (2025), and verifies and evaluates the process (20% weight), substantiality (20% weight), completeness (25% weight), balance (10% weight), comparability (10% weight), readability (10% weight) and innovation (5% weight) of the Report.</p> <p>Secondly, it makes a supplementary evaluation on the degree to which the Report meets the above requirements by referring to the GRI Sustainability Reporting Standard (GRI Standard), ISO 26000 Guidance on Social Responsibility and China Corporate Social Responsibility Reporting Guidelines CAS-ESG 6.0, such as compilation process, topic determination and selection, environmental/social/governance elements, disclosure requirements and performance expression etc.</p>
Evaluation Items	
Process	<p>The compilation of SPC's ESG report can be carried out based on eight process elements: organization, research, identification, initiation, compilation, rating, release and summary, and the Board of Directors is responsible for the final review of the report. The process materials are sufficient, including the information of the working group for the compilation of the sustainable development report, the information of the report compilation process, the information of the report release channels and forms, etc. The process records of the report cover 80% and above of the indicators of the Process Evaluation List.</p> <p>Through the compilation process of the report, it can verify the efforts made by the Report in encouraging the stakeholders to participate in the preparation of the report, defining substantive topics of ESG, and ensuring data authenticity.</p>

Evaluation Items	
Process	<p>The Report has a special chapter to elaborate the discussion and review process of the topic, and the process conforms to the requirements of national laws and regulatory policies, as well as SPC's internal procedure for ESG topic selection & evaluation. The evaluation process is scientific, and the evaluation results are reasonable.</p> <p>Compared with the substantive topics in 2023, the identified topics of significance have slightly changed under the dual evaluation dimension, mainly focusing on the adjustment of internal importance, the adjustment has sufficient background conditions and is based on the internal and external environment of the enterprise in that year.</p>
Substantiality	<p>The Report systematically discloses the four core themes identified and described by SPC, specifically "corporate governance, tackling climate change, green safety, and serving the society", and presents 21 ESG significance topics selected in 2024 through 4 chapters and 20 sections. The report has a standardized process for identifying substantive topics, comprehensively discloses all significance topics under each dimension, and systematically describes major impact events.</p> <p>The Report can cover the substantive topics of "organizational governance, human rights, labor practices, environment, fair operation practices, consumer issues, community participation and development", etc., which are concerned by the relevant standards, and can formulate ESG management measures and performance monitoring & measurement means based on SPC's own characteristics. Finally, it discloses the information to relevant parties in the form of an ESG report, which generally meets the substantive requirements.</p> <p>The topics of significance identified and presented in detail in the year can effectively align with and correspond to the key concerns including the "organizational governance, human rights, labor practices, environment, fair operation practices, consumer issues, and community development" outlined in GB/T36000-2015 Guidance on Social Responsibility, and there are no obvious omissions in the matters of concern.</p> <p>The "Index" chapter of the Report also shows how the content of each chapter relates to the detailed ESG requirements of the relevant parties.</p> <p>The main content of the Report is relatively complete, which systematically discloses SPC's corporate practice of ESG significance topics in the current year through the expressions of 4 chapters, 20 sections and 21 topics of significance; the scope of identification of substantive topics is reasonable, and it can explain some major impacts in detail, which basically meets the substantive requirements.</p>
Completeness	<p>The evaluation of completeness can be categorized into two dimensions: first, the completeness of the responsibility area, i.e., whether the relevant substantive topics of ESG governance are fully covered; second, the completeness of the disclosure method, i.e., whether the concepts, objectives, systems, measures and performance of promoting sustainable development are included.</p> <p>I. Completeness of responsibility area:</p> <p>The "ESG Key Performance Table" of the Report clearly indicates the KPIs under each topic scope according to the disclosed significance topics, providing substantive support for each topic. The main indicator dimensions cover: "pollutant emission, energy consumption, water resources, greenhouse gas emission and management, employment and training, occupational health, employee vocational training, supply chain, tax payment according to law, customer and product responsibility, scientific and technological innovation, compliance and due diligence, and safety governance", which can basically cover the key topics in the petrochemical industry. The Report covers 80% and above of the core indicators in CASS series of China Corporate Sustainability Reporting Guidelines, and the indicators in all dimensions are fully disclosed.</p> <p>II. Completeness of disclosure methods:</p> <p>The Report basically covers the main body of the core indicator framework of the GRI Sustainability Reporting Standard (GRI Standard), ISO 26000 Guidance on Social Responsibility, and China Corporate Social Responsibility Reporting Guidelines CASS-ESG6.0, and the disclosure of ESG governance dimensions is more adequate, which can reflect SPC's concepts and objectives of the annual important work of ESG, and is supported specifically by the comparable data of three years for performance embodiment.</p>
Balance	<p>Balance means that the sustainable development report should fairly reflect the positive impacts of the enterprise, and objectively and pertinently disclose the shortcomings of the enterprise's fulfillment of its responsibilities and corrective measures during the reporting period without prejudice.</p> <p>The Report does not disclose or only superficially discloses the substantive negative information or performance deficiencies without elaborating on the detailed reasons and improvement measures, this highlights the need to strengthen the management and response to non-positive information during ESG risk identification process.</p>
Comparability	<p>The Report contains the "SPC ESG Performance Table", which establishes key indicators and sub-indicators in accordance with the framework of significance topics identified by SPC, and can basically support the connotation of the substantive topics discussed by SPC; moreover, most of the indicators can provide three consecutive years of comparative data from 2022 to 2024, with good vertical comparability.</p>

Comparability	The Report can disclose three consecutive years of data for key performance indicators, and can make detailed explanations and accuracy commitments for the disclosed enterprise data, with good data comparability.
Readability	<p>The Report presents the specific contents in the form of data and text, supplemented by charts and pictures, which can demonstrate the implementation of ESG topics in SPC in a more graphic and intuitive manner, with a clear and well-organized structure.</p> <p>Reading perception --</p> <p>Pictures: Beautiful and generous, appealing, highlighting the theme. No obvious color difference, good appearance;</p> <p>Layout: appropriate font size and line spacing, good presentation of information;</p> <p>Textual description: Adequate expression, easy to increase the recognition of the Report by relevant parties.</p> <p>The Report is published simultaneously on the websites of Shanghai Stock Exchange, Hong Kong Stock Exchange and SPC in both English and Chinese.</p> <p>The Report has a clear framework and rich cases; the language expression is concise and fluent, adopting various forms of expression such as flowcharts and datasheets, with neat typesetting design. The overall readability is good.</p>
Innovation	<p>The Report can fully integrate the ESG requirements of relevant parties into the ESG development strategy and the daily production & operation management of SPC at the conceptual level, and its innovative performance in content is worthy of recognition.</p> <p>Innovation highlight #1: The Report has a risk mindset for ESG management, and can effectively integrate ESG-related concepts into development strategies, governance structures, production operations and business processes, establish procedures for ESG risk identification, analysis and evaluation accordingly, and utilize existing management tools to mitigate or eliminate possible hazards and impacts, which helps to enhance the vitality of ESG management in the actual business of the enterprise.</p> <p>Innovation highlight #2: The Report describes the “digital intelligence transformation” work by a greater length, and details the application forms of “digital twin” technology in SPC, such as: digital security officer, digital equipment etc., providing sufficient and credible material support for the topic of “scientific and technological innovation”.</p>
Comprehensive Opinions	The key information, data and social responsibility fulfillment activities disclosed in the Report basically comply with the relevant requirements for report disclosure under the GRI Sustainability Reporting Standard (GRI Standard), ISO 26000 Guidance on Social Responsibility, China Corporate ESG Report Rating Standard (2025), and China Corporate Social Responsibility Reporting Guidelines CASS-ESG 6.0.
Comprehensive Improvement Suggestions	<p>The comprehensive improvement suggestions are as follows:</p> <p>——Appropriately increase the length of social performance chapters (such as employee health, career development, labor environment and rights, community and public welfare), and focus on describing the improvement and positive development trend of social responsibility work over the years.</p> <p>-- Strengthen the response and disclosure of non-positive information.</p>
Statement	The evaluation comments are specific to the Report only.

Evaluator: Wang Weichen

Evaluation organization: Beijing Sanxing 9000 Certification Body Co., Ltd.

Date of evaluation: March 2025



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About this report

This is the 17th Corporate Social Responsibility (CSR) report and the third ESG development report issued by Sinopec Shanghai Petrochemical Co., Ltd.. The report describes the Company's sustainable development philosophy and policies as well as its efforts in environmental protection, social responsibility and corporate governance in 2024, responding to the expectations and concerns of stakeholders.

Timeframe

1 January 2024 to 31 December 2024. Based on continuity and comparability considerations, three years of data since 2022 have been used where appropriate.

Reporting period

This is an annual report.

Data source

The data used in the report are sourced from official documents and statistical reports of the Company.

Reporting scope

Consistent with the business coverage area of SPC.

Explanation of titles

For ease of presentation and reading, "Sinopec Shanghai Petrochemical Co., Ltd." is also referred to as "SPC", "the Company" or "We" in the report.

Language of the report

This report is published in both Chinese and English. In case of any ambiguity, the Chinese version shall prevail.

Consideration and approval

The Board of Directors of the Company has considered and approved this report on 19 March, 2025.

Report access and extended reading

You can visit the Company's website (<http://spc.sinopec.com/>) to browse or download an electronic copy of this report and learn more about the relevant information.

Reporting standards

This report has been prepared in accordance with the "Self-Regulatory Guidelines for Listed Companies on the Shanghai Stock Exchange No. 14 – Sustainable Development Reporting (for Trial Implementation)", "Self-Regulatory Guidelines for Listed Companies on the Shanghai Stock Exchange No. 4 - Preparation of Sustainable Development Report" and the Code on Environmental, Social and Governance Reporting of the Hong Kong Stock Exchange, and taking reference to the ESG Evaluation Guidelines for Listed Companies in China's Petroleum and Chemical Industry, the Recommendation Report of the Working Group on Climate-Related Financial Disclosure (TCFD) issued by the Working Group on Climate-Related Financial Disclosure, the Guidelines for Publishing Sustainable Development Reports in the Oil and Gas Industry issued by the International Petroleum Industry Environmental Protection Association and the American Petroleum Institute (API), the GRI General Standards (2021 Edition) and GRI 11: Oil and Gas Industry Standards (2021 Edition) issued by the Global Sustainability Standards Board (GSSB), the International Financial Reporting Sustainability Disclosure Standard (IFRS) No.1: General Requirements for Disclosure of Sustainability-Related Financial Information and the IFRS Sustainability Disclosure Guidelines No.2: Climate-Related Disclosures issued by the International Sustainability Standards Board (ISSB), the International Organization for Standardization (ISO) ISO 2600: Guidance on Social Responsibility (2010), as well as the ten principles of the United Nations Global Compact, the Global Compact's requirement for disclosure of annual progress.

Reporting principles

This report complies with the principles of materiality, quantification and consistency in accordance with the requirements of the Hong Kong Stock Exchange's Environmental, Society and Governance Reporting Guidelines. This report identifies important ESG issues related to the Company's sustainable development by conducting research and assessment from both internal and external stakeholder perspectives (please refer to the "Corporate Governance" section of this report for details). This report quantifies and manages the important ESG issues, covering the three dimensions of environmental performance, social performance and governance performance (for details, please refer to the "ESG Key Performance Table" and other sections of this report). This report follows the principle of consistency to ensure the comparability of the data disclosed in previous years. The statistical scope and calculation method of each ESG performance indicator in 2024 disclosed in this report remain consistent with that of the previous year, with no significant adjustments.

Report enhancement

The Company undertakes that there are no false records, misleading statements or material omissions in the contents of the report, and assumes responsibility for the truthfulness, accuracy and completeness of its contents.

Readers' feedback form

Dear Readers:

Hello! Thank you for reading the SPC ESG Report 2024. We value and look forward to hearing your feedback on SPC's sustainable development and this report. Your comments and suggestions are important references for us to improve our social responsibility performance. You can send us your feedback by mail, e-mail or fax. We welcome and sincerely appreciate your valuable comments!

Name:

Unit:

Contact phone number:

Email:

Your comments on this report:

Your comments on this report:	Very good	Good	Average	Poor
Do you think the structure of the report is reasonable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can you understand the SPC's ESG concepts and practice characteristics through the report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you think this report is friendly and easy to read?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Your suggestions for the SPC ESG Report:

Your suggestions for the sustainable development of SPC:

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