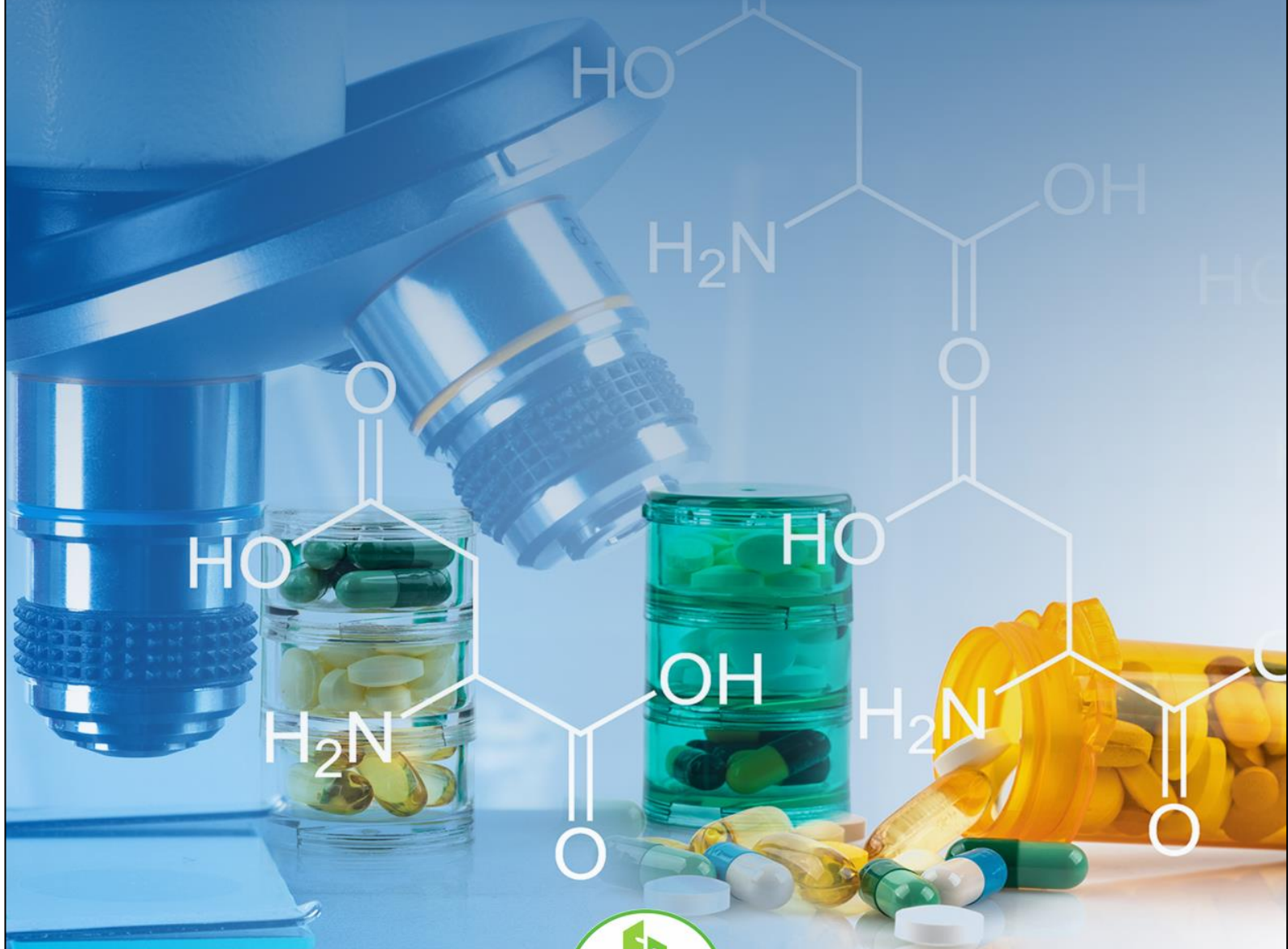


长三角地区重点排污单位 (医药制造业) 碳排放信息披露观察报告



绿色江南公众环境关注中心

2023年6月

Abstract

On July 6, 2021, the official website of the Department of Ecology and Environment of Inner Mongolia Autonomous Region notified "the case of false carbon emission report of Inner Mongolia Erdos High-Tech Materials Co. According to the report, the data in the 2019 greenhouse gas emission report submitted by Inner Mongolia Ordos High-Tech Materials Co., Ltd (self-provided power plant) was falsified; the Department of Ecology and Environment of Inner Mongolia Autonomous Region issued a decision to order correction of environmental violations to the enterprise, and the enterprise was ordered to rectify within a period of time.



Figure 1 Inner Mongolia Ordos High-Tech Materials Co., Ltd. false carbon emission report case

In order to crack down on enterprises' carbon emission data falsification, strengthen supervision and management of carbon emission report quality, and guarantee the smooth and healthy operation of the national carbon market, from October to December 2021, the Ministry of Ecology and Environment organized 31 working groups to carry out special supervision and support work on carbon emission report quality, focusing on key aspects such as data verification and report preparation, and in-depth supervision and inspection of

enterprise sites. Since 2022, the Ministry of Ecology and Environment and the Carbon Summit Carbon Neutral Work Leading Group Office have notified several cases of carbon emission report data falsification and other typical problems, which have attracted widespread attention nationwide.

In the process of green and low-carbon transformation and development of the whole society, the pharmaceutical industry, especially the pharmaceutical industry, has a large number of varieties, rapid renewal, high consumption of raw and auxiliary materials, and large emissions of "three wastes". According to the report of ARUP and HCWH 2019, the total global emissions of pharmaceutical companies are about 520 million tons of CO_{2e}, which exceeds the 464 million tons of CO_{2e} generated by the automotive industry in the same year, making the task of carbon emission reduction very arduous. China's biopharmaceutical industry is developing strongly, and has formed three key regions of Bohai Rim, Yangtze River Delta and Pearl River Delta and the layout of the biopharmaceutical industry with multiple points of dispersal. Among them, the Yangtze River Delta industry cluster, led by Shanghai and mainly composed of Jiangsu and Zhejiang, is the region with the most multinational pharmaceutical enterprises, the strongest R&D and transformation power, and the highest growth value and activity in China.



Figure 2 Biomedical industry layout and characteristics (Photo source network)

In this report, Lvse Jiangnan Public Environmental Concerned Center (hereinafter referred to as "Lvse Jiangnan") focuses on the Yangtze River Delta region and selects pharmaceutical manufacturing companies listed in the list of key emission units published by the environmental protection department as the target of the study, and analyzes the current situation of carbon emission information disclosure in their 2022 annual environmental reports, hoping to find good practice cases of implementing the double carbon target and propose development suggestions for the problems in disclosure, so as to improve the level of carbon emission information disclosure in the pharmaceutical manufacturing industry in the Yangtze River Delta region in the future and promote the sustainable and green development of the industry.

Carbon emission disclosure requirements for enterprises involved in heavy emissions

In December 2020, the Ministry of Ecology and Environment announced the Measures for the Administration of Carbon Emission Trading, which requires key emission units to control greenhouse gas emissions, report carbon emission data, clear carbon emission allowances, disclose information on trading and related activities, and accept supervision and management by the competent ecological and environmental authorities.

In October 2021, the State Council issued the Action Plan for Carbon Peaking by 2030, which requires relevant listed companies and debt-issuing enterprises to regularly publish information on corporate carbon emissions in accordance with the requirements of environmental information disclosure in accordance with the law. Give full play to the role of industry associations and other social groups to urge enterprises to consciously fulfill their social responsibilities.

In December 2021 the ecological environment department issued and implemented the "Management Measures for the Legal Disclosure of Enterprise Environmental Information" (hereinafter referred to as "Management Measures") and the "Format Guidelines for the Legal Disclosure of Enterprise Environmental Information" (hereinafter referred to as "Format Guidelines"), which clarify the requirements for the subject, content and time limit of environmental information disclosure.

The "Management Measures" require that "enterprises disclosing environmental information in accordance with the law" shall disclose the environmental information from January 1 to December 31 of the previous year through the enterprise environmental information disclosure system before March 15 each year. The "Format Guidelines" further refine the content of the legal disclosure of environmental information, and standardize the format and report preparation requirements for the legal disclosure of environmental information. In response to the hot issue of carbon emission trading market, Article 19 of the Format Guidelines mentions that "key greenhouse gas emitters included in the management of carbon emission trading market allowances shall disclose information related to carbon emissions (a) actual annual carbon emissions and actual emissions of the previous year; (b) the status of allowance liquidation; (c) the status of greenhouse gas emission accounting and reporting according to the standards or technical specifications. or technical specifications, disclosure of emission facilities, accounting methods and other information". The Administrative Measures and the Formal Guidelines have the attribute of mandatory disclosure, and those who fail to disclose truthfully, timely or without disclosure will be subject to different degrees of penalties.

Research Subjects

Lvse Jiangnan according to Jiangsu Province, Zhejiang Province and Shanghai Environmental Protection Department official website published in 2022 key emissions unit list; Anhui Province enterprise environmental information disclosure system published by the list of enterprises; the final selection of 555 pharmaceutical manufacturing enterprises as the focus of this report research object. The distribution and percentage of enterprises are shown in Figures 3 and 4.

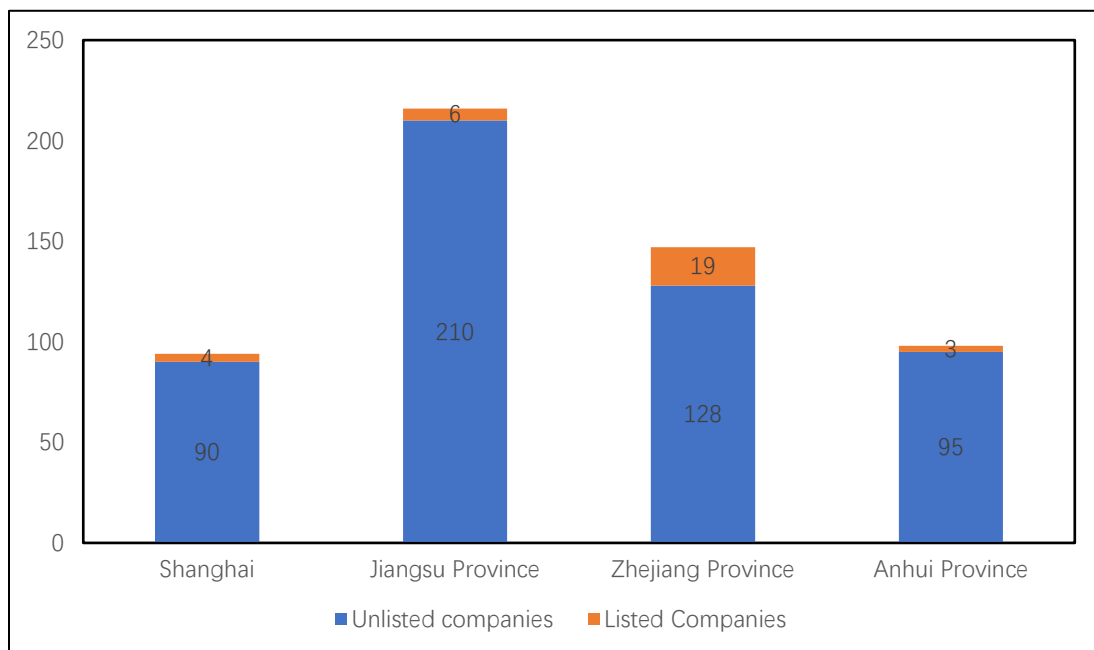


Figure 3 Distribution of key emission units (pharmaceutical manufacturing) in the Yangtze River Delta region

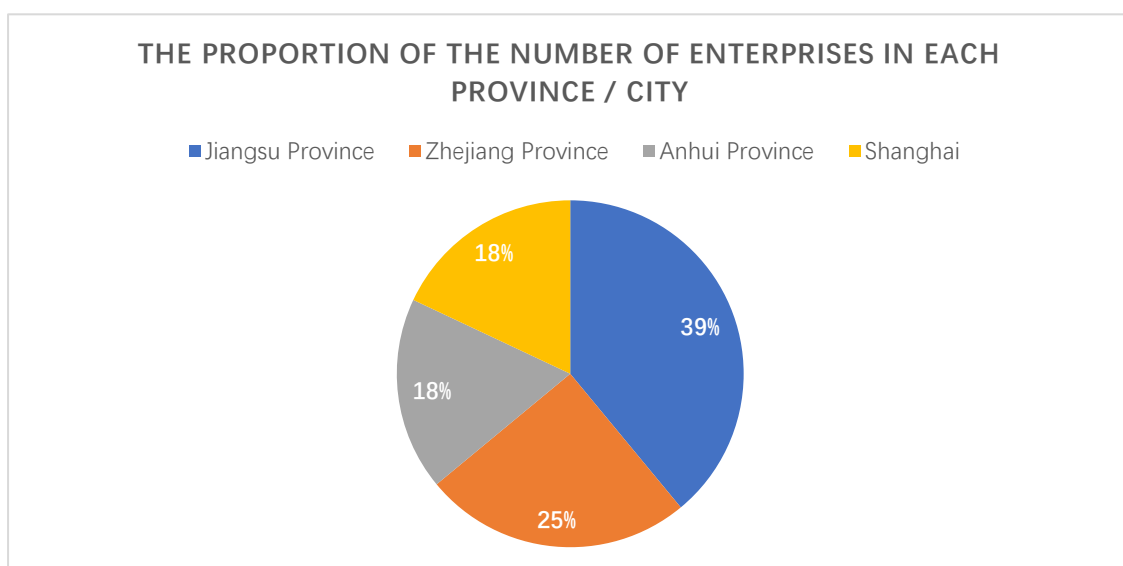


Figure 4 The proportion of key emission units (pharmaceutical manufacturing) in the Yangtze River Delta region by the number of enterprises in each province/city

In accordance with the requirements of the Administrative Measures and the Format Guidelines, we evaluate the disclosure of carbon emission information of enterprises in terms of whether they are included in the carbon emission trading market, whether they disclose emission facilities, accounting methods and other dimensions, and the overall situation is shown below.

省/市	纳入市场 但未披露	纳入市场 且披露	未纳入市场 但披露	未纳入市场 且未披露	合计
江苏省	2	0	8	206	216
浙江省	1	1	46	99	147
安徽省	0	0	0	98	98
上海市	0	0	4	90	94
合计	3	1	58	493	555

Figure 5 Overall Disclosure of Carbon Emission Information of Key Emission Units (Pharmaceutical Manufacturing Industry) in Yangtze River Delta Region

In addition, in order to compare and measure more comprehensively the performance of listed companies in terms of carbon emission information disclosure, Lvse Jiangnan also reviewed the publicly disclosed annual reports, ESG reports/sustainability reports and other regular reports of listed companies, information released through public channels such as official websites and official information platforms of companies.

Status of carbon emission disclosure of pharmaceutical companies involved in heavy emissions

1. 90% of pharmaceutical companies are not active enough to disclose carbon emission information

According to Figure 5, there are 493 key emission units (pharmaceutical manufacturing industry) in the Yangtze River Delta region that are not included in the carbon emission trading market and have not disclosed carbon emission information, accounting for about 90% of all study subjects.

In addition, when Lvse Jiangnan searched the environmental information disclosure system of Anhui enterprises according to the law, he found that, excluding one enterprise that had not filled in the report for the time being, the remaining 97 enterprises did not have the sub-category of carbon emission information in their annual reports. Therefore, Lvse Jiangnan called the Anhui Provincial Department of Ecology and Environment to inquire about the matter, the reply was "According to the requirements of the Format Guidelines, only enterprises that are included in the carbon emission trading market need to disclose carbon emission information, and enterprises will fill in their own reports according to whether they are included, at present, the main industry included in the carbon emission trading market is the power generation industry, and other industries will carry out related work one after another. Thank you for your attention and support to the government's environmental protection cause; if you have any questions, please feel free to correct me."



Figure 6 Anhui Province enterprise environmental information disclosure system according to law pharmaceutical manufacturing industry interface

It can be seen that most pharmaceutical companies' carbon emission information disclosure is based on the legitimacy motive, i.e. to fit the government requirements; for the policy requirements outside the inevitable lack of initiative. Green Jiangnan believes that enterprises take the initiative to carry out energy saving and emission reduction work and disclose it to the authorities and the public in a transparent and open manner, which is not only required by the national policy, but also can enhance the image of the enterprises themselves, create higher economic benefits for them, and contribute to the implementation of the national "double carbon" goal while achieving good environmental performance and energy saving and emission reduction effects. In addition to achieving good environmental performance and energy saving and emission reduction results, the company will contribute to the implementation of the national "double carbon" target and achieve synergy in reducing pollution and carbon emissions.

2. 30 pharmaceutical companies should be disclosed according to the provisions of the non-disclosure

Lvse Jiangnan combing enterprise information found that 30 pharmaceutical companies have violated the provisions of the "Management Measures" and "Format Guidelines".

Jiangsu Junruo Pharmaceutical Co., Ltd, Qidong Dongyue Pharmaceutical Co., Ltd and Zhejiang Haisheng Pharmaceutical Co. No data was uploaded.



企业基本信息			
企业名称	江苏君若药业有限公司	许可证编号	-
统一社会信用代码	91321311MA1W1WY7P	法定代表人	张宝国
环保负责人	张瑞光	环保负责人联系电话	187****5985
行政区划	江苏省	市/行政区	宿迁市
区县/园区	宿豫区	街道/行政区	宿迁生态化工科技产业园
注册地址	江苏宿迁生态化工科技产业园杨子路		
生产地址	江苏宿迁生态化工科技产业园杨子路38号		
国民经济行业	化学药品原料药制造		
企业资质	民营企业	发证类型	-
是否属于重点排污单位	是	重点排污单位类型	次重点排污单位、大气重点排污单位、土壤污染重点监管单位
是否属于实施强制性清洁生产审核企业	否	是否属于纳入碳排放权交易市场的重点管理的高耗能行业重点单位	是
是否属于上市公司	否		

Figure 7 Jiangsu Junruo Pharmaceutical Co., Ltd. 2022 Annual Report



碳排放情况			
本年度实际排放量(千克)	-	上年度实际排放量(千克)	-
配额再交易构成情况	-	温室气体排放核算方法	-
排放设施信息	-		

强制性清洁生产审核信息			
实施强制性清洁生产审核的年份	-		
实施情况	-		
评估与验收结果	-		

Figure 8 Jiangsu Junruo Pharmaceutical Co., Ltd. 2022 Annual Report



企业基本信息			
企业名称	齐东东岳药业有限公司	许可证编号	913206827020883783P
统一社会信用代码	91320682702088378	法定代表人	顾本武
环保负责人	顾本武	环保负责人联系电话	189****9822
行政区划	江苏省	市/行政区	南通市
区县/园区	如东县	街道/行政区	-
注册地址	如东县洋口镇工业园区		
生产地址	如东县洋口镇工业园区		
国民经济行业	化学药品原料药制造		
企业资质	民营企业	发证类型	-
是否属于重点排污单位	是	重点排污单位类型	水重点排污单位、大气重点排污单位、土壤污染重点监管单位、地下水污染重点监管单位
是否属于实施强制性清洁生产审核企业	是	是否属于纳入碳排放权交易市场的重点管理的高耗能行业重点单位	是
是否属于上市公司	否		

Figure 9 Qidong Dongyue Pharmaceutical Co., Ltd. 2022 Annual Report



Figure 12 Zhejiang Haisheng Pharmaceutical Co., Ltd. 2022 Annual Report

In addition, including Zhejiang Donghui Pharmaceutical Co., Ltd., Shanghai Yishengyuan Pharmaceutical Co., Ltd. and Jiangsu Madsen Pharmaceutical Co., Ltd. 27 pharmaceutical companies belonging to the key emission units, in accordance with the provisions of the "Management Measures" before March 15, through the enterprise environmental information disclosure system in accordance with the law to publicly disclose the annual environmental information in 2022, but in the provinces and municipalities on the filling system are showing "no data".



Figure 13 Search of Zhejiang Donghui Pharmaceutical Co.

The Measures also impose penalties on enterprises that fail to disclose annual environmental information in a timely manner, namely, Article 28, which stipulates that "if environmental information is not disclosed, the competent department of ecology and environment at or above the municipal level of the district shall order rectification, inform criticism, and may impose a fine of not less than 10,000 yuan but not more than 100,000 yuan"; and Article 29, which stipulates that "If the disclosure of environmental information exceeds the prescribed time limit or if the environmental information is not uploaded to the enterprise environmental information disclosure system in accordance with the law, the competent department of ecology and environment at or above the municipal level of the district shall order correction, inform and criticize, and may impose a fine of not more than 50,000 yuan."

It can be seen that the local ecological and environmental departments have the right to punish the enterprises, whether the annual report disclosure is incomplete or not disclosed in time. We hope that the above-mentioned companies can disclose or explain by preparing interim reports as soon as possible to enhance their environmental performance to avoid environmental penalties and damage to their corporate image.

3. Showing corporate responsibility, 14 companies actively make carbon disclosure

Unlike most enterprises that follow the rules and regulations and only fill in the information required by the relevant regulations, 14 enterprises such as Shen Long Pharmaceutical (Changshu) Co, Shanghai He Quan Pharmaceutical Co, Zhejiang Aoxiang Pharmaceutical Co, consciously fulfill their social responsibility, actively respond to the market and policies, report carbon emission data and clear carbon emission allowances in detail in the 2022 annual report, and actively accept the ecological environment Ltd. and other 14

enterprises consciously fulfill their social responsibility, actively respond to the market and policies, report carbon emission data and pay carbon emission allowances in their 2022 annual reports, and actively accept the supervision and management of the ecological and environmental authorities. It is worth mentioning that these 14 enterprises, except for Jinhua Kang'anbei Biopharmaceutical Co.

Table 1 List of 14 enterprises with excellent performance in carbon emission information disclosure

Company Name	Company Name
Shenlong Pharmaceutical (Changshu) Co.	Shanghai Hequan Pharmaceutical Co.
Zhejiang Aoxiang Pharmaceutical Co.	Zhejiang Oceanpower Chemicals Co.
Wenzhou Zhongke New Energy Technology Co.	Zhejiang Prodebon Pharmaceutical Co.
Zhejiang Jinhua Kangenbei Biopharmaceutical Co.	Zhejiang Jiuzhou Pharmaceutical Company Limited Jiaojiang Waisha Branch
Zhejiang Tiantai Pharmaceutical Co.	Zhejiang Staley Pharmaceutical Co.
Yikolai (Taizhou) Pharmaceutical Co.	Zhejiang Hongyuan Pharmaceutical Co.
Wanbangde Pharmaceutical Group Co.	Zhejiang Behede Pharmaceutical Co.



Figure 14 Shanghai Hequan Pharmaceutical Co., Ltd. 2022 Annual Report Carbon Emissions

Lvse Jiangnan expresses its affirmation of the above-mentioned enterprises' behavior of showing their commitment, taking the initiative to assume social responsibility and actively embracing the national policy. The disclosure of carbon emission information by enterprises, on the one hand, conveys to the public the signal that the enterprises themselves actively respond to the national policy and implement the "double carbon" target, which is conducive to enhancing the corporate image and gaining more investment opportunities; on the other hand, it is also a way for enterprises to check themselves and help them improve their awareness and ability of climate risk management. It is also a way for other enterprises and industries to improve the science, comprehensiveness and initiative of carbon emission information disclosure, which plays a good demonstration role.

Lvse Jiangnan Promotion

Lvse Jiangnan sent a letter to 41 pharmaceutical companies on April 28, 2023,

aiming at friendly communication and warm reminder on the disclosure of carbon emission information in the 2022 annual report. Except for WTO Tianji Pharmaceutical (Jiangsu) Co., Ltd. and Yuxing Medical Materials (Lu'an) Co., Ltd. which refused to receive the letter, and Yancheng Xin'Anzhou Pharmaceutical Co., Ltd. which returned the letter due to the unknown relocation to a new location, the remaining 38 companies have shown that the letter has been signed.

Up to now, Lvse Jiangnan a total of nine companies have communicated and exchange, the remaining 29 pharmaceutical companies been called several times, but have not received an effective response. Enterprise response is as follows:

(i) Data not updated in a timely manner

Although Wu Gan Pharmaceutical (Suzhou) Co., Ltd. is not included in the carbon emissions trading market, but after receiving Lvse Jiangnan's letter, it took the initiative to contact Lvse Jiangnan and expressed its gratitude for Lvse Jiangnan's tips; at the same time, it said that because the company's personnel just contacted the field, the data update was not timely resulting in missing data, and now the data has been re-uploaded, and Lvse Jiangnan is welcome to monitor and make suggestions.

After verification, the enterprise has updated the carbon annual emission data of 2021 and 2022 on the enterprise environmental information disclosure system of Jiangsu Province according to law.



Figure 15 Wu Gan Pharmaceutical (Suzhou) Co., Ltd. 2022 Annual Report Update



Figure 16 Wu Gan Pharmaceutical (Suzhou) Co., Ltd. 2022 Annual Report Update

(ii) unfamiliar with regulatory requirements

Jiangsu Madsen Pharmaceutical Co., Ltd. in the receipt of the letter, the first time to reply to the green Jiangnan. Said "is not clear about the relevant requirements, but also do not know how to fill in the report, commitment to other companies to understand the situation after disclosure", Lvse Jiangnan continue to pay attention to information updates.

(iii) The government does not require disclosure

Zhejiang Chengyi Pharmaceutical Co., Ltd, Zhejiang Xianju Pharmaceutical Co., Ltd and Zhejiang Haisheng Pharmaceutical Co., Ltd all said that "local government departments do not require carbon disclosure", and when asked about the reasons for not requiring it, all three companies said they were not sure.

Zhejiang Xianju Pharmaceutical Co., Ltd. has a supplementary explanation of carbon disclosure, saying that "according to the requirements of the competent authorities, carbon emission information is disclosed on the 'industrial energy saving and green development' platform, but at present, the carbon emission data uploaded is still 21 years, and the filling of 22 years' data needs to wait for The data for 22 years will have to wait for the notification of the competent authorities".

(iv) Other cases

Ltd., Wuxi Yishu Pharmaceutical Co., Ltd., Shanghai Blue Garden Bioengineering Co., Ltd. and Beda Pharmaceutical Co., Ltd. 4 pharmaceutical companies replied similarly: they said they were not sure which department/who was responsible for the annual environmental reporting and needed to reply after verification.

Jiangsu Zhengda Fenghai Pharmaceutical Co., Ltd. said: "We have not received the relevant letters, if you have questions send an email to the company mailbox, the follow-up will be replied.

Qidong Dongyue Pharmaceutical Co., Ltd. staff on the phone, said it is not clear, Green South has sent an electronic letter. Green South repeatedly called Jiangsu Junruo Pharmaceutical Co., Ltd., unfortunately, the phone has not been connected, Green South also sent electronic letters to the company.

Conclusion and Recommendations

In July 2021, the national carbon emissions trading market was officially opened at the Shanghai Environmental Energy Exchange. This is the world's largest carbon emissions trading market and a key step towards achieving China's goal of "carbon neutrality". According to the Ministry of Ecology and Environment, the first batch of 2,162 key emission units in the power generation industry were included in the national carbon market, covering about 4.5 billion tons of carbon dioxide emissions. According to the "Hubei Province Carbon Emission Allowance Allocation Plan for 2021" released in November 2022, the pharmaceutical manufacturing industry has been included in the Hubei carbon emission trading market, and other regions, including the pharmaceutical manufacturing industry in the Yangtze River Delta, will soon be included in the carbon emission trading system.

In this report, through the observation of the disclosure of carbon emission information of pharmaceutical manufacturing companies in the Yangtze River Delta region listed in the list of key emission units published by environmental protection departments, we found that the overall disclosure ratio and level of pharmaceutical manufacturing industry is currently at a low level, and the initiative needs to be further strengthened. Companies need to be conscious of their responsibilities, strengthen their carbon emission management and disclosure efforts, and help implement the "double carbon goal" as much as possible. However, we should also see that there are still problems caused by different information disclosure standards and inconsistent requirements under different calibers. Multiple sets of standards make market players confused, and will also affect the actual effect of carbon emission reduction.

To this end, Lvse Jiangnan recommends that:

1. Companies pay attention to their own environmental information disclosure and take the initiative to assume social responsibility

As an important market player, carbon disclosure is of great significance for enterprises to achieve the goal of "double carbon". We should make efforts to make carbon disclosure comprehensive, truthful, timely and consistent, actively fulfill our social responsibility and promote our low-carbon transformation.

The establishment of a professional team is a prerequisite for enterprises to carry out carbon emission information management work, and to build up a good capacity reserve and improve the professionalism and execution of the team. Enterprises should also conduct self-examination and reasonable assessment, set reliable and realistic long-term and short-term targets for "double carbon", and evaluate their own carbon emission performance on time, so as to fill in the gaps. In addition, they can learn from the excellent experience of leading companies, and continuously improve their carbon disclosure level, so as to embrace compliance while going beyond it.

2. Based on the fundamental, learn from experience, and constantly optimize laws and regulations standards

The Administrative Measures and the Format Guidelines have been officially released, which means that carbon emission information disclosure has gradually entered the era of mandatory disclosure. There are also penalties in the Administrative Measures for non-compliance with the disclosure requirements, but the fines are not high and there is no corresponding incentive mechanism. In contrast, the cost of establishing a comprehensive GHG emission accounting, monitoring and disclosure system is much higher than the upper limit of fines, and those enterprises that choose to disclose carbon emission information do not receive additional incentives. Perhaps because of

this, in the absence of an effective incentive and restraint mechanism, most enterprises lack the incentive to implement it.

Therefore, Lvse Jiangnan suggests that the regulatory authorities should continue to improve the rules of environmental information disclosure management, insist on the combination of China's actual situation and international best practices, study and optimize the information disclosure requirements on social responsibility and corporate governance in due course, and further improve the relevance and effectiveness of information disclosure.

3. Government departments play a regulatory function to urge companies to disclose as much as they should

According to the observation, three of the 555 pharmaceutical companies included in the carbon emission trading market that are the focus of this report have not disclosed carbon emission-related information in the legal disclosure system of enterprise environmental information in various provinces and cities, and 27 of them have not yet disclosed their annual environmental information, which is obviously contrary to the relevant regulatory requirements.

Therefore, Lvse Jiangnan suggests that government departments should give full play to their supervisory functions, supervise the disclosure content of enterprises in accordance with the relevant requirements, and punish and correct those enterprises that do not comply with the regulations, so as to ensure that enterprises should disclose as much as possible.

4. Enterprises should respond to social concerns in a timely manner

In this report, Lvse Jiangnan sent letters to 41 companies regarding the lack of carbon disclosure, but only 9 companies responded as of the release of the

report. China's laws clearly stipulate that citizens, legal persons and other organizations have the right to obtain environmental information, participate in and supervise ecological environmental protection in accordance with the law. Enterprises should proactively respond to social concerns and strengthen communication and exchange to fulfill their social responsibilities.