



DONGGUANG CHEMICAL LIMITED
東光化工有限公司

(incorporated in the Cayman Islands with limited liability)
Stock Code: 1702

**2019 ENVIRONMENTAL,
SOCIAL AND
GOVERNANCE REPORT**



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1 COMPANY PROFILE

1.1 About us

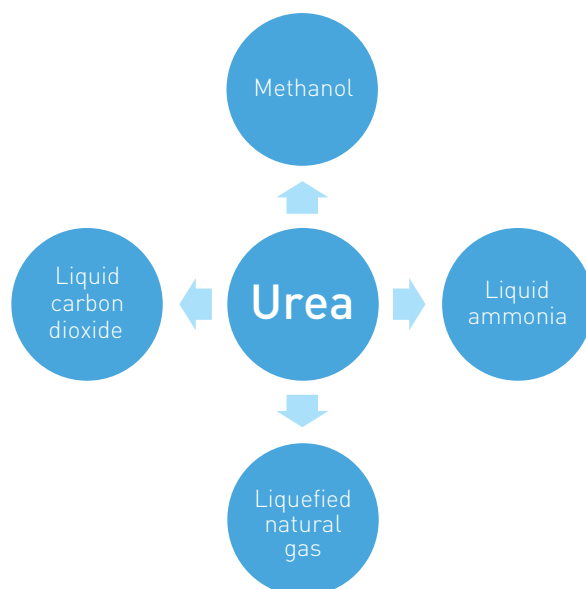
1.1.1 Brief Introduction

Hebei Dongguang Chemical Co., Ltd (“**Dongguang Chemical**”), the indirect wholly owned subsidiary of Dongguang Chemical Limited (the “**Company**” and together with its subsidiaries, the “**Group**”), was originally established in 1970. Its predecessor, Hebei Dongguang Huafei Factory (“**Dongguang Huafei**”), was a local state-owned enterprise and was later privatized and reorganized in July 1998. On 11 July 2017, the Group was listed on the Main Board of the Stock Exchange of Hong Kong Limited (the “**Stock Exchange**”) (Stock code “1702”).

We have been focusing on the research and production of urea since 2001, and have gradually grown into the largest urea production enterprise in Hebei Province and ranked among the top 20 urea manufacturers in China. We are close to major national highways, railways and important ports in Northern China. The superior geographical position allows the Group to quickly respond to the needs of customers in various regions. The Group has maintained a good relationship with customers while building its brand reputation in Hebei Province and surrounding areas. We also continuously improve production technology, improve product quality and quantity, and at the same time, actively control costs, and increase revenue. Our focus on environmental protection and production safety, with a stable talent team and management team, has laid a solid foundation for the Group's subsequent development. We currently have two production plants equipped with advanced production equipment. The Group currently has 1,294 employees and a total area of 700,000 square meters. In recent years, the production and sales of urea, methanol, liquid ammonia and other products have been good, and the Group's financial situation has maintained a steady upward trend.

For the year ended 31 December 2019, we have been recognized by the China Nitrogen Fertilizer Industry Association for the fourth consecutive year and won the title of “Advanced Unit for Energy Conservation and Emission Reduction in Nitrogen Fertilizer and Methanol Industry”. In July 2019, we were on the list of green factories announced by the Ministry of Industry and Information Technology and were selected as a “National Green Factory”, reflecting the society's recognition of the Company's environmental protection efforts and the active promotion of our construction of green industry.

1.1.2 Major industries



The Group is one of the major coal-based urea producers in the PRC, with headquarter located in Hebei Province. The Group mainly produces and sells urea. It also produces and sells other by-products of urea, including methanol, liquid carbon dioxide and liquid natural gas.

- Urea

Urea is a white crystal composed of carbon, nitrogen, oxygen and hydrogen. It is one of the simplest organic compounds and the nitrogen fertilizer with the highest nitrogen content. Urea is a neutral fertilizer, which is easy to store and use, has little damage to the soil, and is almost suitable for various soils and plants.

Based on particle size, urea products can be categorized into granular urea (large granular) and prilled urea (small granular). Compared with the prilled urea, the granular urea has a higher fertilizer utilization rate and a longer fertilizer effect time. It is often used as a base fertilizer and has more obvious seasonal characteristics. The prilled urea is slightly faster to dissolve and release after application. The prilled urea is commonly used for fertilization and can be used all year round.

As the Group's main product, urea sales volume accounts for a high proportion of the total product sales year round, and customers who buy urea products mainly include (i) farmers who use urea as fertilizer; (ii) direct sales of urea to farmers Enterprises; (iii) Enterprises that use urea for the production of synthetic fertilizers; and (iv) Chemical Enterprises that use urea for the production of melamine and Cyan uric acid. In 2019, the Group launched a new product-compound fertilizer and tried a small amount of sales. Compared with urea, compound fertilizer has more nutrients, higher nutrient content, and improved fertilizer utilization, which plays an important role in promoting high and stable crop yields.

- Liquid carbon dioxide

The liquid carbon dioxide is produced by the degassing process of the air release body after purification, compression, purification, distillation and cooling. As a by-product of the production of urea, liquid carbon dioxide can be used in various industries such as catering, health and environmental protection, etc. It is most commonly used to extinguish small fires caused by flammable liquids, etc.; refrigerants for air conditioning in cars; and also the oil production process. It is also one of the important main raw materials.

- Methanol

Methanol is an important organic chemical raw material. It is also an important organic solvent. It is a colorless, volatile liquid with an alcoholic odor. It is also highly toxic, but it can be used as an artificial protein due to its high protein conversion rate, non-toxic and very economically. Methanol is widely used in pharmaceutical, chemical, energy and other industries. After processing, it can be used as fuel and mixed with gasoline combustion. Of course, the main application area of methanol is the production of formaldehyde, which can be used to produce adhesives. It is mainly used in the wood processing industry and it is also an indispensable raw material for the production of various synthetic resins.

The methanol production methods include gas-to-methanol, coal-to-methanol, and cooking gas to methanol. Because of the lack of natural gas resources, the Group mainly uses coal to produce methanol, and is equipped with innovative equipment and utilizes technologies developed by China to facilitate the Competitors are in an advantage state.

- Liquid natural gas

The main component of liquid natural gas is methane, which is recognized as the cleanest energy source on Earth. It is colorless, odorless, non-toxic, and non-corrosive. It is a relatively advanced energy source. As urea-by-products, it is also widely used in residential, industrial, and commercial industries; the most important industrial application is power generation. The advantages of liquid natural gas in ceramics, glass and other industries are even more obvious, which can greatly improve product quality or reduce costs. In addition, as a sustainable development of clean energy, it also has obvious environmental and social benefits, and is a premium alternative fuel for automobiles. With the improvement of the living standards of residents, the adoption of liquid natural gas for the residents of small and medium-sized cities and towns is gradually increasing.

- Liquid ammonia

As an important chemical raw material, ammonia is convenient for transportation and storage. Usually, gaseous ammonia is pressurized or cooled to obtain liquid ammonia. Liquid ammonia is a colorless liquid and is widely used in industry. However, because it is corrosive and volatile, the probability of a chemical accident is relatively high. Liquid ammonia is mainly used for the production of nitric acid, urea, and other chemical fertilizers. It can also be used as a raw material for medicines and pesticides. At the same time liquid ammonia has a certain bactericidal effect, so in the poultry farming industry, it is used for sterilization and cooling.

1.1.3 Corporate social responsibility

Entrepreneurial spirit	<ul style="list-style-type: none">• Open spirit• Unity spirit• Fighting spirit• Perseverance and enterprising spirit• Wholehearted dedication spirit
Business philosophy	<ul style="list-style-type: none">• The user is supreme• Sincere hospitality• Careful service
Management concept	<ul style="list-style-type: none">• Simultaneous development of reform and transformation• Equal emphasis on safety and benefits• Synchronization of environmental protection and development• Coexistence of quality and business
Social responsibility and values	<ul style="list-style-type: none">• Loyal to the company• Diligence and career• Dedicate to the society

1.2 Honors and Achievements

1.2.1 Responsibility honors overview

Since the establishment of the Group, we have won many honors with our good brand image, down-to-earth spirit, well-developed corporate governance structure, sound information disclosure system, and environmentally safe production awareness and concepts. We was honored 2011-2012 Technologically Advanced Enterprises, Top 20 National Nitrogen Fertilizer Enterprises Urea Total Profit Companies in 2015, Safety Production Standardization Secondary Enterprise in 2016. In 2018, we was honored the title of "Advanced Enterprise" and Top 20 National Nitrogen Fertilizer Enterprises Urea Production and Total Profit Companies.

The following is an overview of the honors we received in 2019:



Urea futures were listed in August 2019, and Dongguang Chemical became one of the first 12 urea delivery plant warehouses designated by the Zhengzhou Commodity Exchange.



China Nitrogen Fertilizer Industry Association honored Dongguang Chemical the "Top 20 Production of Urea Fertilizers in National Nitrogen Fertilizer Industry" in May 2019.



Dongguang Chemical was honored "2018 Advanced Unit of Energy Saving and Emission Reduction in Nitrogen Fertilizer and Methanol Industry" by China Nitrogen Fertilizer Industry Association.



Dongguang Chemical was honored "Hebei Province Credit Enterprise" by the Hebei Province Honest Enterprise Selection Committee in 2019.



Dongguang Chemical was honored the "2018 Municipal Government Quality Award Organization Award" by Cangzhou Municipal People's Government.



Dongguang Chemical was honored the title of "Hebei Province Credit Enterprise Founding Unit" by Hebei Provincial Enterprise Credit Promotion Association and Hebei Provincial Enterprise Credit Research Institute.



Dongguang Chemical was honored a pennant by the by the local village committee and party branch because of donating 41 tons of fertilizer to Tangziling Village.



Dongguang Chemical was honored the "Hebei Province Enterprise Safety Production Integrity Class A Certificate" by The Hebei Provincial Safety Production Committee.

1.2.2 Key achievements overview

In 2019, we continued to introduce advanced technology and equipment on the production line to effectively increase production capacity while reducing production costs. Secondly, we continued to invest heavily in environmental protection equipment on the original basis, so that the discharge of pollutants is far below the environmental protection standards, while further weakening the impact on the surrounding environment. Based on the Group's continuous emphasis and efforts on environmental protection and safe production, we were shortlisted in the fourth batch of green manufacturing announcements by the Ministry of Industry and Information Technology in 2019 and were rated as a national green factory.

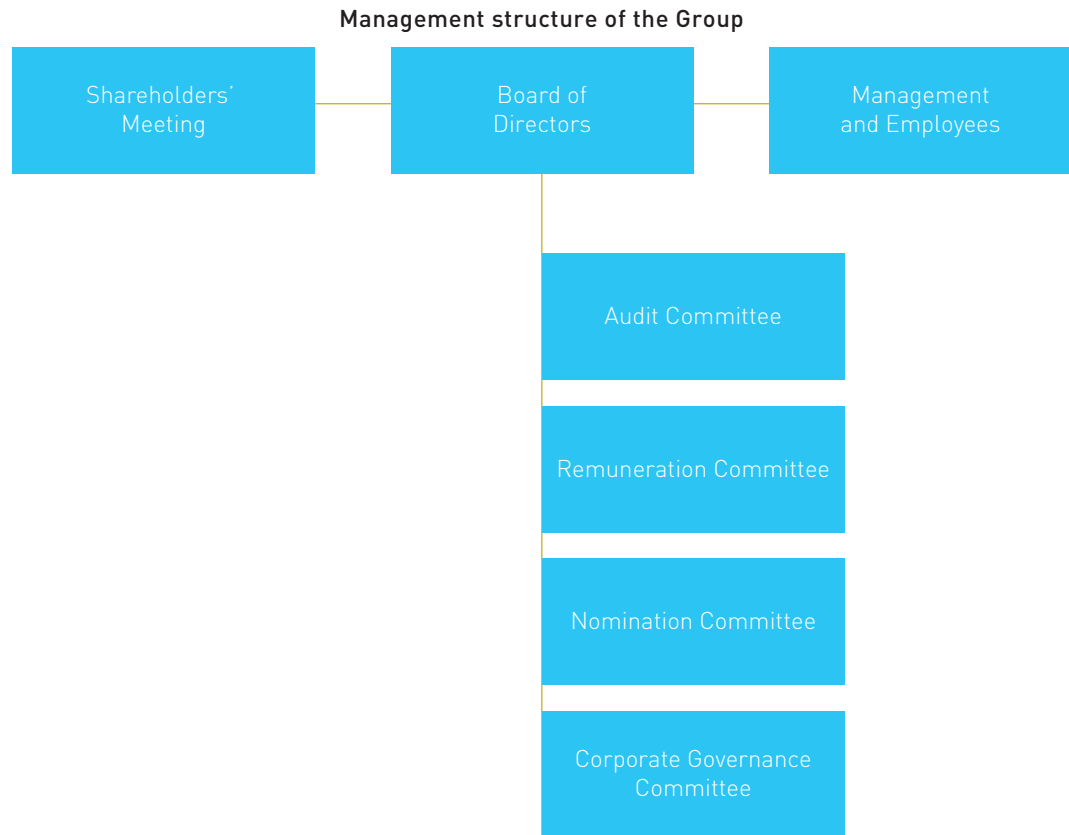
A green factory refers to a factory that realizes intensive land use, clean production, waste recycling, and low-carbon energy. In June 2015, the State Council officially issued "Made in China 2025", which proposed to adhere to the basic principles of "innovation-driven, quality first, green development, structural optimization, talent-oriented", the construction of green factories as a priority. The green factory is the main body of green manufacturing and plays a vital role in the industrial environmental protection upgrade. Green manufacturing is an important means to solve national resource and environmental problems, an important task for industrial transformation and upgrading, an effective way for the industry to achieve green development, and an inevitable choice for enterprises to actively assume social responsibility.

We have long been adhering to the concept of green environmental protection development, non-stop technical transformation, management and efficiency, and has done a lot of work in green transformation and achieved good results. In the future, we will continue to improve the Group's green level from various aspects such as energy and water saving, cleaner production, pollution prevention, and comprehensive utilization of resources, and improve the construction of the Group's green manufacturing system.

1.3 Corporate governance

1.3.1 Corporate Governance Framework

The Company has adopted the code provisions as set out in the Corporate Governance Code and Corporate Governance Report (the "**Governance Code**") as contained in Appendix 14 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "**Listing Rules**") as its own code to govern its corporate governance practices. The internal governance structure is mainly composed of shareholders' meeting, board of directors, management and employees. Management structure of the Group is shown in the following table:



With reference to the above corporate governance system, the main conditions of corporate governance are as follows:

- (1) Shareholders and Shareholders' Meetings: During the year, when the general meeting of shareholders of the Company reviewed relevant proposals and the Group's major business decisions, the topics of the meeting were considered through voting and the authorities were exercised according to law.
- (2) The relationship between the controlling shareholder and the listed company: The resolution of the general meeting must be passed by more than half of the voting rights held by the shareholders attending the meeting. The controlling shareholders strictly abide by the relevant laws and regulations of the securities market, regulate the Company's corporate governance and information disclosure procedures, and perform their duties with due diligence to promote the standardized operation of the Company and improve the quality of the Company.
- (3) Directors and Board of Directors: All directors of the Company exercise their powers and obligations strictly in accordance with the provisions of the Listing Rules, perform their duties faithfully, and safeguard the interests of the Company. The directors of the Company maintain a cautious, serious and diligent attitude, and make objective and fair judgments on the resolutions considered by the board of directors based on their professional knowledge and capabilities. Regularly convene and actively participate in board meetings to promote the effective operation of the company. The board of directors is responsible for formulating and supervising the company's strategic development and assuming the company's corporate governance responsibilities.

- (4) Executives: The Company employs and changes senior management personnel in strict accordance with the provisions of the Listing Rules. Senior management personnel are able to perform their duties in accordance with laws and regulations, have important responsibility for the company's management and performance benefits, and make every effort to realize the company's best interests.

1.3.2 Overview of Dongguang Chemical Limited's Board of Directors

The board of directors is the Company's business decision-making center. The board of directors is entrusted by the shareholders to manage the Company's property and is responsible to the shareholders. As of 31 December 2019, the Company's board of directors is served by eight directors, including four executive directors, one non-executive director and three independent non-executive directors.

Director Information:

Name	Age	Position	Date of appointment	Date of joining the Group	Responsibility
Mr. Wang Zhihe	62	Executive director Chairman of the Board	2014.06.12	1998.07	Responsible for the Group's overall strategic development and lead the Group's business development
Mr. Sun Yi	65	Executive director Vice Chairman of the Board	2014.06.12	1998.07	Responsible for the Group's overall financial management and internal control
Mr. Sun Zushan	67	Executive director Chief Operating Officer	2014.06.12	1998.07	Responsible for the overall operational management of the Group
Mr. Xu Xijiang	58	Executive director Chief Technology Officer	2014.06.12	1998.07	Responsible for the overall technology and production management of the Group
Ms. Chen Jimin	45	Non-executive Director	2018.04.06	2018.05	Supervise management, participate in the direction of the Group's business and affairs, and provide objective opinions on the issues facing the board
Ms. Lin Xiuxiang	57	Independent non-executive director	2017.06.20	2017.06	Supervise the board and make independent judgments
Mr. Liu Jincheng	55	Independent non-executive director	2017.06.20	2017.06	Supervise the board and make independent judgments
Mr. Ng Sai Leung	47	Independent non-executive director	2017.06.20	2017.06	Supervise the board and make independent judgments

1.3.3 Overview of stakeholders and the communication with them

The relevant stakeholders and the Company are complementary to each other, and different stakeholders play different roles in the Company. The development of the Company is inseparable from the participation, investment and supervision of various stakeholders, so the relevant stakeholders are extremely important for the survival, development and governance of the Company, and the relevant stakeholders also achieve their own goals through the Company. Therefore, the ability to maintain good communication with relevant stakeholders will affect the Company's daily operations. The Company should maintain a certain frequency of contact with relevant stakeholders to facilitate understanding of its goals and concerns. At the same time, the opinions of relevant stakeholders are also factors that the Company needs to consider when making important decisions.

The following figure is an overview of relevant stakeholders:

Stakeholders	Main objectives and focus	Communication channel	Measures
Shareholders and investors	Company operations, revenue payback, protection of shareholders' rights; true, accurate, and timely disclosure of information.	Interim Report, Annual Report, Shareholders' Meeting, Stock Exchange Information Disclosure.	According to the Listing Rules, regularly discloses interim reports, annual reports and announcements, and holds shareholders' meetings.
Customers	Product quality and quantity guarantee, long-term and stable cooperation.	Visit regularly and maintain daily communication.	Establish a quality inspection center and a customer service center. Strictly monitor product quality and provides customers with satisfactory products. While focus on protecting the interests of customers, facilitating customers and serving customers and ensuring the smooth delivery of goods.
Government	Operating legally, paying taxes according to law, producing safe and environmentally friendly, fulfilling social responsibilities.	On-site inspections, work conference discussions, approval of work reports.	Legal operation, compliance management, and tax payment in accordance with the law. Strengthen the Company's safety production and environmental protection management; receive supervision and inspection by the government, and actively undertake social responsibilities.
Staff	Guarantee of fundamental rights and interests, welfare and remuneration, working environment, development space, occupational health and safety, self-value realization.	Trade unions, employees and management communication channels, employee activities, training and learning.	Establish a corporate trade union organization to provide employees with a communication platform; pay compensation and benefits in full and on time, pay social insurance in accordance with the law; provide a healthy and safe working environment; establish a fair promotion mechanism; care for employees, help employees in difficulties, and organize employee activities.
Suppliers	Fair bidding, long-term stable cooperation and timely payment.	Bidding meetings, fairs, daily communication.	Fair bidding, selection of merit, performance of contracts as per contract, strengthening of daily communications, long-term cooperation with high-quality suppliers.

Stakeholders	Main objectives and focus	Communication channel	Measures
Bank	Repayment on schedule, operating conditions, business risks, honesty and credit.	Work conference, on-site inspection, post-loan tracking, and daily communication.	Repayment of loans and interest on time, cooperation with loan review and supervision.
Competitors	Fair competition, cooperative development, sharing of technology and experience, industry development.	Seminars, exchange visits, negotiations, industry conferences.	Practiced fair competition, achieved win-win cooperation, shared experiences, participated in industry seminars and research exchange activities for more than ten times, and promoted the sustainable development of the industry.
Market supervisor	Compliance with regulatory requirements, compliance management, disclosure of information and filing information.	Consulting, information disclosure, reporting, filing information.	Strictly abide by regulatory requirements, and disclose information and filing materials in a timely, accurate, and truthful manner according to law.

- Investor Relationship Management

Investor relationship is an important factor to enhance the Company's value. Strengthening the management of investor relations is beneficial to the Company's establishment of a good capital market, improvement of investor's recognition and loyalty to the Group, and then maximizes the relative value of the Company. The Group communicate with investors through emails, regularly disclose intern reports, annual reports and announcements in accordance with the Listing Rules and hold shareholders' meetings.

- Customer Relationship Management

The Group has fully developed its production technology and management since joining the industry, continuously improving the quantity and quality of its products and enabling the Group to establish long-term and stable relationships with customers in the industry.

In order to complete the customer's order with quality and quantity, we use a quality control system to strictly control the quality of the product, mainly in the testing and inspection of product production, and the secondary control of product quality in packaging and storage, through sealed packaging and timely delivery with production, so as to ensure the high quality of products.

- Environmental Protection Agency Relationship Management

Dongguang County Branch of Cangzhou Environmental Protection Bureau strictly supervises and manages the Group's environmental protection implementation in accordance with relevant national laws and regulations. At the same time, the Environmental Protection Bureau will propose improvements to the Group's existing environmental protection work, so that the Group's environmental protection work can continue to be improved while meeting the standards.

- Government Relation Management

We strive to use various information dissemination channels and methods to carry out two-way information exchange with the government to obtain government trust, support and cooperation, so as to establish a good external environment for the Group and promote the Group's survival and development.



The picture above shows the leaders of Xinjiang Production and Construction Corps came to our company for inspection and guidance in October 2019.

- Relationship Management In The Same Industry

China Nitrogen Fertilizer and Methanol Technology Conference



In addition, we also attach great importance to the relationship with people in the same industry. From 6 July to 8 July 2019, we participated in the "2019 China Nitrogen Fertilizer and Methanol Technology Conference" held by the China Nitrogen Fertilizer Industry Association in Zhumadian City, Henan Province. The meeting reported the general situation of China's synthetic ammonia, urea production, energy resource consumption and pollutant emissions in 2018, discussed the latest environmental protection policies and environmental protection problems and other hot information, and shared the environmental protection advanced technological achievements such as "bag dust removal" and introduced the green development experience of well-known enterprises. Besides, the meeting also discussed the innovation drive, transformation and upgrading, new safety and environmental protection measures of the nitrogen fertilizer and methanol industries. The opportunities and challenges of high-quality development of the nitrogen fertilizer and methanol industries coexist. After the Group's efforts and development in 2018, we won the honorary title of "2018 Advanced Unit for Energy Conservation and Emission Reduction in the Nitrogen Fertilizer and Methanol Industry" by the Association.

Urea Futures Industry Promotion Conference



In order to fulfill the responsibilities of the urea futures delivery factory warehouse, in November 2019, the Group and Hengyin Futures jointly hosted the urea futures industry promotion meeting, and invited many experts and researchers in the industry to discuss and exchange development trends of the urea industry.

Technical Exchange Meeting of Synthetic Ammonia Central Station



From 29 October to 31 October 2019, the “Technical Exchange Meeting of Synthetic Ammonia Central Station” jointly sponsored by the Synthetic Ammonia and Nitric Acid Design Committee of China Petroleum and Chemical Exploration and Design Association and the National Chemical Synthetic Ammonia Design and Technology Center Station was held in Cangzhou, Hebei Province. The conference focused on the theme of “enhancing scientific and technological innovation capability and promoting high-quality development of the industry”. Experts are invited to share the research results on the high-quality development of the chemical fertilizer industry during the 14th Five-Year Plan; explain the new policy guidance of the state for nitrogenous fertilizer industry; exchange the future development direction and technology development trend of nitrogenous fertilizer industry; exchange advanced technology and experience in product development, technological transformation and application of new materials in downstream enterprises of synthetic ammonia, methanol and urea grades. In addition, China uses fixed bed batch gasifier technology to produce synthetic ammonia, which accounts for more than one third of the total output. The 2019 Guidance Catalogue for Industrial Structure Adjustment includes this gasification technology in the restricted category. So, does the technology need to be forced out? What should manufacturers do with this technology? For this reason, this meeting is devoted to the special discussion on the technology and economy of fixed bed intermittent gasification.

We have been using this technology to produce urea for a long time, thus facing great pressure. However, the Group attaches great importance to environmental protection and has long realized that the technology has high energy consumption and pollution problems. Therefore, the Group has jointly developed and implemented the “Fixed Bed Intermittent Gasification Circulating Cooling Water and Waste Gas Vocs Treatment Project” with other enterprises, and specially invited participants to visit the construction site to share and exchange the treatment technology.

2 ENVIRONMENTAL PERFORMANCE ANALYSIS

2.1 Overview of relevant environmental protection policies in major business areas

2014 《Law of the PRC on environmental protection》(Amended in 2014)

To protect and improve the environment, prevent pollution and other public hazards, safeguard public health, recommend ecological civilization construction and promote sustainable economic and social development.

2015 《Law of the PRC on the prevention and control of atmospheric pollution》(Amended in 2015)

To protect and improve the environment, prevent and control atmospheric pollution, safeguard public health, promote the construction of ecological civilization and promote sustainable economic and social development.

2016 Hebei Province Air Pollution Control Regulations (Amended in 2016)

Prevent and control air pollution, protect and improve living environment and ecological environment, protect human health and promote the development of socialist modernization.

2017 《Law of the PRC on water protection》(Amended in 2017)

To protect the environment, prevent and control pollution, and promote the development of pollution control technologies for the production of synthetic ammonia.

《The administration's methods of assessment of enterprise credit of Hebei province》(Trial implementation)

To accelerate the construction of environmental protection credit system in Hebei Province, establish the mechanism of "trustworthy encouragement, discretion and disciplinary punishment" for environmental protection, and implement the main responsibility of environmental protection of enterprises.

《The regulations of environmental protection of constructive project》

To prevent construction projects from generating new pollution and destroying the ecological environment.

2018

《Law of the PRC on Environmental Protection Tax》

To protect and improve the environment, and reduce pollutant emissions.

《Law of the PRC on air protection》(Amended in 2018)

To protect the environment, prevent and control air pollution, protect public health, and promote the construction of ecological civilization.

《Law of the PRC on soil protection》

To protect and improve the ecological environment, prevent and control soil pollution, protect public health, and promote the sustainable use of soil resources.

2019

《Administrative Measures on Coal Substitution for Coal-Used Investment Projects in Hebei Province》

To strengthen the prevention and control of air pollution, implement the goal of total coal consumption control, and standardize the coal substitution management of coal-fixed asset investment projects.

《Comprehensive Treatment Scheme for Volatile Organic Compounds in Key Industries》

To improve the scientific, targeted and effective management of volatile organic compounds (VOCs), and coordinate the control of greenhouse gas emissions.

《Integrated Control Plan for Air Pollution of Industrial Furnace》

To strengthen the comprehensive control of atmospheric pollution of industrial furnaces and kilns, coordinate the control of greenhouse gas emissions, and promote the development of high-quality industries.

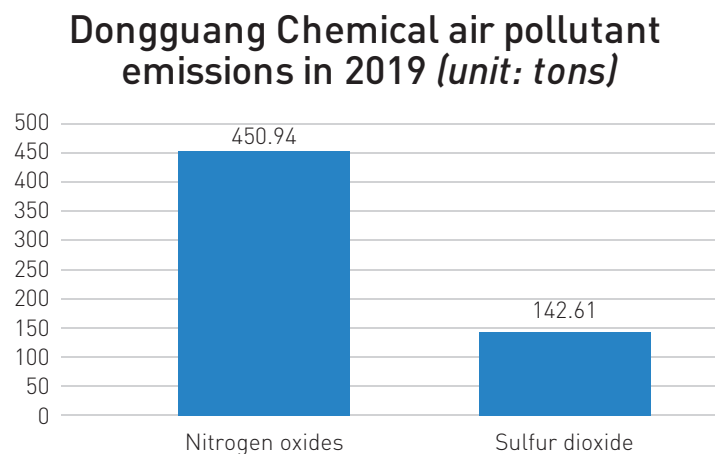
2.2 Emissions Correlation Analysis

The pollutants emitted by Dongguang Chemical due to fuel combustion mainly include nitrogen oxides (NO_x), sulfur dioxide (SO₂) and particulate matter. Most of the exhaust gas emitted comes from the consumption of coal fuel combustion, and a small part comes from the consumption of cars.

The Group's main fuel combustion source is coal. White coal and bituminous coal are the main raw materials used in the production of products. White coal has a high carbon content and the least amount of impurities. It is used as a raw material for the production of urea and methanol. Bituminous coal has a lower carbon content than white coal. It is used to produce electricity for the production process and steam for gasification. The types of vehicles that consume fuel are mainly small and light-duty vehicles, mainly from small-sized vehicles, and the consumption of passenger cars, trucks and other vehicles.

2.2.1 Exhaust emission data calculation

In the process of combustion, air pollutants such as nitrogen oxides, sulfur oxides, and particulates are emitted. Excessive discharge of pollutants can lead to air pollution. Therefore, the appropriate amount of pollutants is an important prerequisite and a priority for the chemical industry. The emission of each emission is calculated based on the data obtained and collected of Dongguang Chemical's gas fuel consumption and vehicle emissions and is shown in the following figure:



According to the standards set by the local environmental protection bureau for waste emissions, the annual limit of nitrogen oxides are 549.25 tons, and the annual limit of sulfur oxides are 327.1 tons. As shown in the above figures, the NO_x and SO_x emissions of the Group in 2019 were 450.94 tons and 142.61 tons respectively. The total emissions of the two major air pollutants have not exceeded the standard indicator.

2.2.2 GHG emissions data calculation

Greenhouse gases will be emitted through both direct and indirect methods. The combustion of fuel by fixed and mobile sources will directly emit a certain amount of greenhouse gases, which covers the greenhouse gas emissions directly generated by the business owned or controlled by the company, which is Scope1; the electricity provided will indirectly emit greenhouse gases which is Scope 2. Our company can basically recover carbon dioxide generated during the production process of fixed source combustion. The carbon dioxide recovered from this part is then produced into liquid carbon dioxide as by-product and then into the sales channel. The mobile source (small and light vehicle emissions) fuel consumption and emissions of carbon dioxide, methane and Nitrous Oxide amounted 87,842.52 tons of carbon dioxide equivalent. We calculate the carbon dioxide emissions of 664,484.99 tons of carbon dioxide equivalent via the Group monthly electricity bills.

2.3 Waste classification and emissions

2.3.1 Waste classification and processing

Dongguang Chemical Waste Sorting and discharging in 2019 (Unit: Ton)

Category		Name	Collection	Treatment	Weight
General waste	Non-recyclable waste	Peel, residual food and other domestic waste	Placed in company trash	Collection	6.3
		Sludge	No emission targets and no emissions	Burned by three-waste furnace	540.97
	Recyclable waste	Slag	Put it in the specified storage	Send three waste furnace to burn	32,911.97
		Waste paper: waste newspapers, office waste paper, etc.	Put it in the specified storage	Dealt by waste recyclers	1.5

2.4 Resource Usage Analysis

2.4.1 Main energy consumption structure of enterprises

In 2019, Dongguang Chemical consumed 60 tons of gasoline, 50 tons of diesel, 0.36 million tons of fuel coal, and 0.85 million tons of anthracite, the power consumption is 1.06 billion kwh. The Group applies water sources according to relevant national environmental protection policies and regulations, and has always adhered to the concept of water conservation. In 2019, the total water consumption of groundwater is about 769,400 tons.

In 2019, Dongguang Chemical's various energy consumption was 1.18 million tons of standard coal, of which 67.46% originated from anthracite, 21.56% originated from bituminous coal, and 10.97% originated from electricity.

Different types of energy consumption of Dongguang Chemical in 2019

(unit: ton standard coal)

Electricity	129,627.31
Anthracite	796,865.87
Raw coal	254,672.95
Gasoline	88.28
Diesel	72.86

2.4.2 Other Energy Consumption Statistics

Since coal is the main source of the Group's energy consumption, it is a difficult task for the Group to develop the urea industrial chain through the system's maximum use of the gas emitted from urea production, while reducing energy consumption, emissions, and environmental pollution. As of 31 December 2019, the number and types of company office equipment have been calculated. There are 212 computers, 42 printers, 3 fax machines, and 2 copy machines. In addition to working equipment, a total of 1,600 light bulbs are energy-saving lamps. There are 124 air conditioners, 110 split units and 14 water-cooled units.

Dongguang Chemical's sewage disposal capacity of 2019 is 35.6 cubic meters per hour. All sewage discharges are properly handled in accordance with relevant national environmental protection policies and regulations.

In addition, for the urea industry, the amount and treatment of fertilizer packaging also has important implications for the protection of human and animal security and the ecological environment. In order to strengthen the quality management of urea bags, Dongguang Chemical has established a packaging bags inspection and management system, strictly implements sampling inspections and issues inspection reports. Discarded packaging bags are standardized for recycling and unified scientific treatment to maximize the protection of the ecological environment.

2.4.3 Energy Saving and Emission Reduction

Energy-saving and emission reduction is an important measure to implement the scientific concept of development, promote economic restructuring, change the mode of economic development, and increase the potential for sustainable development. Dongguang Chemical strictly implements the energy-saving and emission-reduction system, and has repeatedly upgraded the production line to achieve certain results in reducing energy consumption.

2.4.3.1 Freeze blocking and waste avoiding

In order to minimize waste, Dongguang Chemical has done lots of work on preventing freezing. It is stipulated that the on-duty dispatcher should always pay close attention to the temperature change when the temperature reaches zero degree centigrade, and immediately notify the various positions to check the discharge status of each dredge to avoid the occurrence of frozen plugging events. When the temperature reaches above zero degree, the dispatcher on duty should be responsible for notifying each position, reasonably controlling (or shutting down) the drain discharge, and avoiding waste.

2.4.3.2 The use of heater

In order to reasonably control the on and off of heaters, Dongguang Chemical stipulated that when the temperature is higher than 15 degrees centigrade, all heating facilities in the office buildings and workshops should be turned off. When the temperature is lower than 15 degrees centigrade, heating facilities can be turned on according to the needs of the employees, so as to avoid waste of resources due to long-term use of heating facilities.

2.4.3.3 Electricity-saving management

In accordance with the principle of maximizing electricity savings, Dongguang Chemical stipulates the timely turn-off of office computers, the air-conditioner on-off control in the production workshop, and the prohibition of permanent lights in the factory area. The employees are required to turn off the lights and the fans when they leave the workshop.

2.4.3.4 The use of air-conditioning

The use of air-conditioning is based on the principles of safety management, energy saving and consumption reduction, so the Company makes relevant regulations on the use of air-conditioning according to changes in seasonal temperatures. Doors and windows should be closed during use, air conditioners must not be arbitrarily changed the direction of the fan blades, and air conditioners and other energy-saving regulations should be promptly closed when off duty.

2.4.3.5 Water conservation

Water conservation is also an important measure for effective energy conservation and emission reduction. Dongguang Chemical strictly forbids the occurrence of dripping, long running water, etc. in the water system. Employees will be punished if it violates the regulations. In addition, Dongguang Chemical stipulates that every time water is added to the desulfurization circulating water and gas-making circulating water, it must be approved by the water supply workshop. The addition of faucets must also be submitted to the production department and the water supply workshop for approval.

2.4.3.6 Energy saving

Every ton of urea produced by our company needs to consume a certain amount of steam. We recycle this part of steam through the equipment to achieve more possibilities for saving and reducing consumption. Secondly, we will also use the waste heat generated by fuel combustion to generate electricity, thereby saving the raw coal required for power generation. In addition, our production department will formulate energy-saving and consumption-reducing measures for gas production, purification, compression and other links according to the actual situation every month, such as the transformation of the through furnace to increase the gas production; the use of old stainless steel pipes to detect leaks in the urea synthesis tower Renovation; continuously optimize the devices that need to be strengthened and improved in production to better achieve the effect of energy saving and consumption reduction.

At the same time, while advocating water conservation, we also introduced a reclaimed water reuse device combining membrane separation technology and biotechnology to achieve sewage treatment, solid-liquid separation and reclaimed water reuse. The intermediate water reuse device is mainly used to purify the waste water generated in the production process. After the treatment of the device, more than 50% of the waste water can continue to be recycled for production, which greatly avoids the waste of water resources and reduces our economic expenditure.

2.5 Environmental protection

2.5.1 *Report on the air, water and noise situation of the plant*

Each year, the EPA entrusts or we commission a testing technology service company to inspect Dongguang Chemical's operating conditions and environmental protection facilities. The monitoring of the locations and items corresponding to exhaust gas, waste water, and noise is performed according to the implementation of the standard values. The monitoring equipment is used to check whether the monitoring limits of the equipment exceed the standard values. Based on the inspection results, the test results are obtained and a monitoring report is issued. the Group uses the monitoring report to obtain the discharge permit.

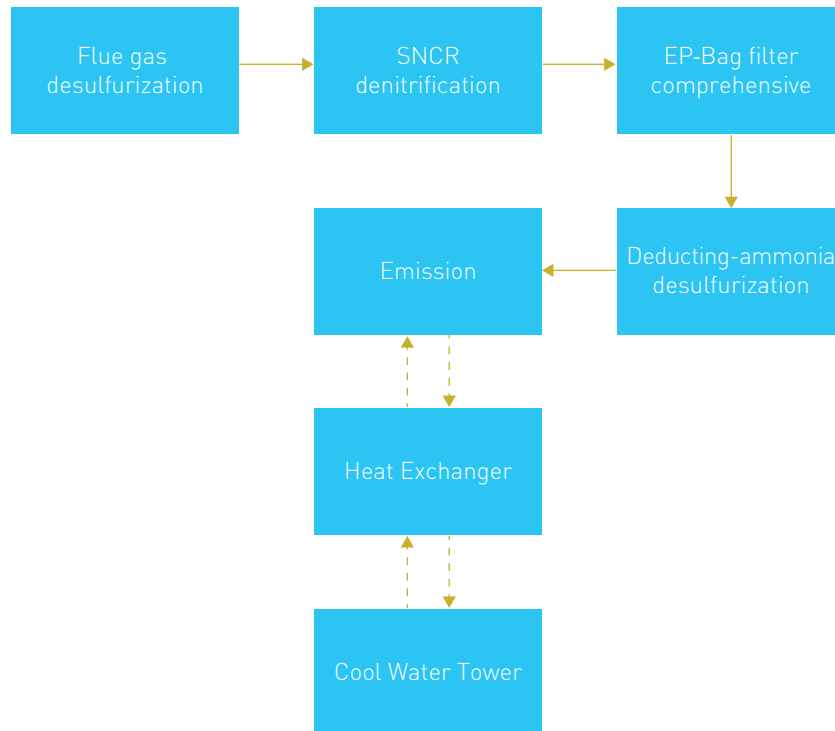
The monitoring report data of 2019 shows that the monitoring values of exhaust gas, waste water and noise meet the local or national emission standard values.

2.5.2 Environmental System Treatment Process (Handling Harmful Substances)

“Three wastes” are the products of the chemical industry in production, and improper treatment will cause serious pollution to the surrounding environment. The waste gas, waste water and waste residue generated by the Group’s manufactured products are processed by environmental protection equipment and will not be discharged until they reach the standard.

(1) Waste gas/water/residue treatment flow chart

Waste gas treatment flow chart

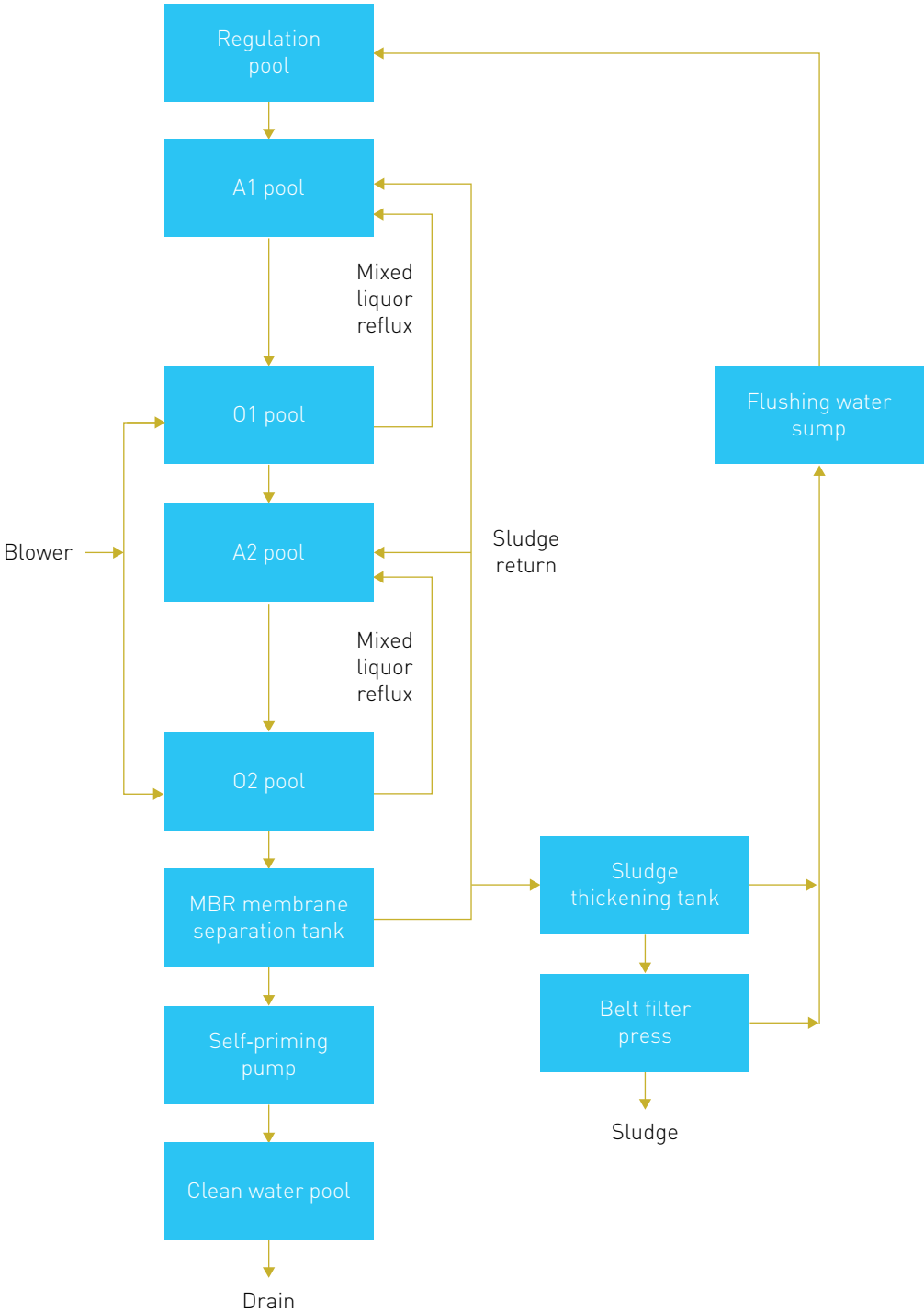


Exhaust gas is produced during the production of urea. The Group first uses the SNCR denitrification process to treat the exhaust gas, and then removes the dust through a wet scrubber, using electric bag composite dust removal, ammonia desulfurization and other treatment procedures, and finally reaches the national standard for discharge. We subsequently upgraded the flue gas desulfurization equipment, which increased the number of spray layers, expanded the spray contact area, and further improved the effect of sulfur and dust removal.

In 2019, we have newly invested equipment for flue gas whitening and further technically reformed the desulfurization tower. The flue gas whitening equipment can eliminate the aerosol generated by the ammonia desulfurization process or operation defects, remove the saturated steam in the exhaust gas, and reduce the flue gas temperature of the desulfurization tower, thereby achieving the purpose of eliminating colored plumes.

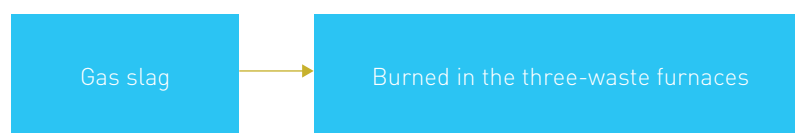
Therefore, the waste gas generated in the production process of the Group becomes cleaner after denitrification, dust removal, desulfurization, whitening and other measures. After meeting the emission standards of the new environmental protection smoke and rain treatment policy, it is discharged into the air through the chimney. After the Group’s continuous exploration and improvement in environmental protection in recent years, the air conditions at and around the Group’s location have significantly improved.

Flow chart of wastewater treatment



Our production and operation must comply with various environmental protection, occupational health and safety laws and regulations, government policies and industry standards applicable to China's environmental protection, occupational health and safety related to the discharge of waste water, solid waste and gases. We installed waste water treatment facilities in Plant 1 and Plant 2 respectively to treat all waste water generated during the production process of our products. The respective waste water treatment capacity of the relevant facilities is 751 tons and 104 tons per day, respectively. Most of the waste water will continue to be used in the production of products after treatment, and a small part will be discharged after reaching the standard.

Waste slag processing flow chart



Unlike urea producers who use natural gas as raw materials, we use coal for urea production, so a large amount of waste residue will be generated during the production process. We send the generated waste slag to three waste furnaces for combustion. After combustion, some waste slag can be recycled as boiler fuel, and some waste slag can be processed into new building materials and sold to other companies.

The three-waste furnace is a facility for treating three wastes, waste gas, waste residue, and coal foam. In order to respond to the national environmental protection policy and reduce pollutant emissions, the Group renovated the flue gas desulfurization facility, and solved the problem that the original 150-ton boiler and 90-ton three-waste furnace had no desulfurization facilities. At present, Dongguang Chemical has a total of 4 exhaust gas outlets, all of which are connected to the Municipal Environmental Protection Bureau and the County Environmental Protection Bureau to achieve information disclosure and discharge in strict accordance with standards. According to statistics, the real number of four chimneys is 24 hours/day to achieve uninterrupted production facilities. The running time in the past three years is as follows:

Category \ Time	2017		2018		2019	
	Operating days	Operating hours	Operating days	Operating hours	Operating days	Operating hours
Three waste furnace chimney (120 tons)	349	8,376	362	8,680	348	8,352
Three waste furnace chimney (90 tons)	92	2,208	277	6,654	62	1,491
Boiler chimney	305	7,320	260	6,239	43	1,046
New exhaust gas outlet			84	2,024	314	7,547

2.5.3 Strengthen pollution control facilities

In order to improve the air environment in the surrounding areas in autumn and winter, we actively improve the problem of the unorganized emission of particulate matter in the coal sheds where coal is stored. In addition, we also use low-noise equipment, vibration reduction, distance attenuation and other methods to reduce noise, while meeting environmental quality standards, and further reducing the impact on the ecological environment. Facing the severe energy conservation and environmental protection situation, we started with comprehensive energy utilization, combined the "three wastes" treatment, comprehensive utilization and technological transformation, closely linked the enterprise development with environmental protection, and achieved good economic benefits and environmental protection results.

2.5.4 Environmental inspection department daily inspection

In order to protect our living and production environment, prevent pollution, implement sustainable development strategies, and gradually realize cleaner production, we have formulated the "Environmental Protection Management System" and implemented related management. Cadres and employees must pay attention to energy conservation and emission reduction, so as to improve their environmental protection awareness and legal concept. Keep the production workshop clean, clean up the factory roads in time to prevent dust pollution; check, repair and maintain the environmental protection facilities on time to ensure the integrity of equipment. The supervision and management of the above situations are all under the responsibility of the Environmental Protection Department.

The Environmental Protection Department will formulate a monthly inspection plan, conduct daily inspections in accordance with the daily inspection plan, and conduct a joint inspection once a week. In addition, unannounced inspections are also essential, such as checking whether the online monitoring facilities are operating normally, whether the environmental protection equipment is inspected on time, or whether the workshops and departments are cleaned in time, etc. Penalties are imposed and a penalty notice is formed. Monthly check the operation of each production facility and form an inspection table of the Environmental Protection Department to check whether the equipment is operating normally.

2.5.5 Green construction

In order to optimize and afforest the plant environment, improve the afforestation management level, consolidate the afforestation construction achievements of the plant, and make the afforestation of our plantation institutionalized and standardized, Dongguang Chemical has formulated the "Greening Evaluation" for the roads, workshops, departments and other areas based on the actual situation "Incentive Measures", organizing offices every year, the logistics department, the first branch production department, the second branch production department and other departments to participate in the greening evaluation. In 2019, in order to promote more detailed and routine greening work and further increase the greening enthusiasm of production cadres and employees, Dongguang Chemical has formulated a greening fund based on the actual situation of the Group. The fund includes a fixed amount of greening funds that the Group will provide in the spring and autumn, and a certain amount will be withdrawn from the actual bonuses issued by the plant director and the director of the production department every month from October 2019. The branch's production department, environmental protection department, and logistics department are responsible for the overall planning of greening, planting and other technical support, and are also responsible for greening logistics support and daily supervision and management; each workshop does its own green plant maintenance work in accordance with the planning. We evaluate and reward the greening achievements of each branch and workshop every spring and autumn.

3. CSR ANALYSIS

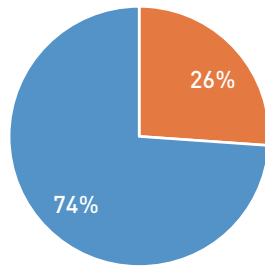
3.1 Employment and labor status analysis

3.1.1 Overview of staff employment and labor standards

Dongguang Chemical formulates a comprehensive staff employment rules and regulations in accordance with national and local policies regarding the employment of staff and labor conditions. From the employee handbook, it is seen that employees work eight hours a day and implement a three-shift system for factory workers. The non-production department is closed for five days a month, and the production department is closed for eight or nine days a month. At the same time, employees legally enjoy any prescribed benefits, wages, and holidays. In addition, during the period of high temperature, workers will be issued heatstroke and cooling supplies to provide employees with a good and suitable working environment, which also ensures safe production in high temperature weather and effectively prevents the occurrence of heatstroke in front line employees.

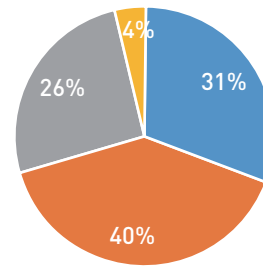
We hire employees strictly in accordance with the established recruitment process and plan. The person in charge of the human resources department and the head of the relevant department determine the employee to be hired, and the employee can only be hired after review and approval by the chairman. We uphold the principle of "justice, openness and fairness" to motivate and restrain every employee, and resolutely resists the employment of minor children as regular employees of the Group. At the same time, we pay attention to personnel training and development, and every employee has the right and opportunity for promotion. We evaluate self-recommended employees in accordance with relevant systems, implement a promotion system for qualified employees, create a space for employees to fully implement their talents, and develop training plans to enable employees to develop better.

Dongguang Chemical's major indicators of employees in 2019



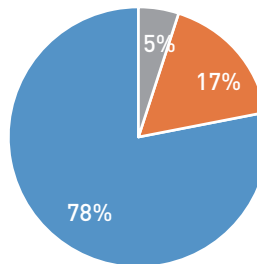
■ Male ■ Female

Gender



■ Below 30 ■ 31-40
■ 41-50 ■ Above 50

Age



■ Undergraduate
■ College
■ Technical secondary school and below

Education situation

Dongguang Chemical's number of employees and turnover rate in 2019

Type of employees	Number at y.e	Percentage at y.e	Number of staff left	Turnover rate
Functional management	192	14.84%	8	0.62%
Urea production	1,014	80.68%	52	4.02%
Other	58	4.48%	2	0.15%
Total	1,294	100.00%	62	4.79%

As of 31 December 2019, the total number of employees in Dongguang Chemical was 1,294, of which males accounted for a relatively large proportion, among which the staff number of urea production was the largest. Overall, our annual turnover rate was low, and there was little change in personnel, so the overall situation is stable.

3.1.2 Overview of employee Health and Safety

In order to ensure safe production, we have formulated and implemented the "Working Environment and Safety Management Measures", "On-site Safety Management Percent Assessment Measures" and other rules and regulations, and evaluates daily production safety in accordance with the "Production System Percent Assessment Management Measures" happening. Secondly, the Environmental Protection Department is responsible for the supervision and inspection of the Group's civilized production management work. It implements daily inspections and regular joint inspections. It issues daily assessments and rectification notices within a time limit to departments that violate civilized production assessment standards, and performs daily assessments and rectification Check records and ledger. At the same time, the Safety Department organizes comprehensive inspections with the participation of production, equipment, process, electrical, instrumentation and other departments, and conducts comprehensive inspections once a quarter. Then, the Group adopts different investigation methods and investigation frequencies for different types of hidden dangers. The responsible person strictly implements the "security inspection and hidden danger investigation and governance system", and implements preventive treatment by classification, and handles the discovered hidden dangers in a timely manner. In addition, the investigation, treatment, and monitoring of hidden dangers of various departments are included in the monthly safety assessment of the person in charge of the unit, and the excellent inspection workshop is rewarded, and the responsible persons who do not require the implementation are given corresponding penalties.

In addition, in order to ensure the safe operation of production facilities, we will implement a one-year repair system for large-scale substations, and small-scale production equipment will also be regularly repaired and maintained; seasonal and professional investigation of hidden dangers, and immediately prepare hidden danger inspection records, the Safety Department establishes the hidden danger files, clarifies the hidden danger level, and urges the implementation of various measures for hidden danger management in accordance with the "five fixed" principles, monitors the hidden danger management situation, and ensures that the hidden danger management is completed on schedule; ensure adequate and complete materials for employees on time. Do a good job in all aspects of the Group's safety in production, reduce the possibility of accidents, so as to ensure that employees have a safe working environment.

Due to the initiative of the employees of the Group and the frequent self-examination of the workshop groups, no safety accidents have occurred in 2019.

Safety-production indicators	Times
Environmental pollution accident	0
Fire accident	0
Light-hurt accident	0
Severe accident	0
Death accident	0

In order to ensure the health of employees, we also invite hospitals to "home service" every year to conduct health checks for all employees. For the front-line employees, we will also arrange related occupational health checks. In addition, we also have corresponding protection for female employees. During the physical examination, it has added inspection items related to female health to ensure the physical and mental health of female employees.

In 2019, the labor union of Dongguang County organized a "one-day donation for employees' mutual assistance" activity, which raised funds through various channels for mutual assistance in providing assistance to employees and their families who participated in "one-day donations" due to illness, hospitalization and major accidents. The employees of the Group carry forward the fine tradition of unity, friendship and mutual assistance. A total of 1,083 people participated in this activity, with a total donation of more than RMB30,000.

3.1.2.1 SIS (Safety Instrument System)

With the development of industry, the production process is becoming more and more complicated, and the possibility of safety accidents is increasing, so the safety control procedures are becoming more and more complicated. There are a lot of production parameters and equipment data in the production process. If these parameters and data are within the specified range, it means that the production is in a normal state; if it exceeds the specified range, it means that there is an abnormal production. In the normal range, this advance program is called a safety interlock. SIS (Safety Instrument System) is a system to prevent accidents from automatically taking part or whole production equipment to stop, or automatically introducing a predetermined safe state, which can prevent further expansion of abnormal conditions such as mechanical equipment failure and energy interruption. The Group introduced the system in 2019, which greatly improved the degree of automation of the Group's production and provided a guarantee for safe production under abnormal working conditions. This transformation also achieved the Company's safety management ideas of centralized production control, mechanized substitution, and automation reduction.

3.1.2.2 Daily fire drill



"Safety first, environmental protection determines the future" is the slogan and goal of Dongguang Chemical. In order to implement the national laws and regulations on safe production, strengthen safety management, further strengthen fire safety education for all personnel, and do a good job in fire safety in the factory area. A fire brigade of Donghua Company was formed and equipped with professional firefighting facilities and equipment, and employees of the plant were often organized for fire drills.

In June 2019, Dongguang Chemical organized an annual fire drill. The theme of this drill was a comprehensive drill on the safety production emergency plan. The drill simulated the emergency treatment of the employees of Dongguang Chemical when the root valve of the 2# spherical tank leaked. Since the production employees are familiar with how to respond to such incidents, the employees throughout the exercise were not in a hurry and were in order, and completed the response to the leakage of the valve at the root of the spherical tank in a short time. Through this fire drill, it provided employees with a practical combat simulation drill opportunity, which enabled everyone to consolidate fire fighting knowledge and be familiar with emergency operations, and at the same time strengthened employees' production safety awareness.

3.1.3 Overview of Staff development and training

In order to provide employees with a better working environment and development prospects, Dongguang Chemical arranges various training courses from time to time to enhance employees' safety awareness and professionalism. The main training items are safety operation skills; emergency rescue training; protection supplies, emergency supplies training; workshop operation rules learning, etc. In addition, all employees must carry out advance job training to master the necessary professional skills. Employees in certain special positions must also hold a certificate to avoid unnecessary damage caused by the lack of technology.

At present, Dongguang Chemical's internal training is divided into on-the-job training, daily training and other internal training, which mainly includes two parts: process and safety. According to statistics, there were 341 training activities in 2019, with a total of 702 hours and 2,306 participants.

Training Name/type	content	Internal/ external	Acc. Hours (unit hours)	Acc. Times (unit times)	Acc. Participants (unit people)	Percent (acc. Part./ total staff)	Result
On-the-job training	process	internal	20	5	78	100.00%	Y
	safety	internal	120	5	78	100.00%	Y
Daily training	process,	internal	300	200	1,010	78.00%	Y
	technical safety	internal	262	131	1,140	88.00%	Y
Total			702	341	2,306		

- Environmental knowledge training:



In February 2019, all management personnel of Dongguang Chemicals participated in environmental protection knowledge training to introduce them to the basic situation of green factories and the Group's environmental protection status.

The Environmental Protection Department will talk about the national policy situation, the policy situation of Hebei Province and Cangzhou City, the implementation of the same industry and the Groups current greening situation, etc., so that the management personnel can change the Group's water, noise and pollutant emissions. Intuitive understanding can pay more attention to where the Group's current environmental protection is not in place, so as to further improve and strengthen, and make the Group's production and operation more green.

In addition to training, Dongguang Chemical will also hold post skill competitions, daily discussion and study, and travel activities such as tourism activities to enrich the lives of employees.

- Teacher Apprenticeship Meeting



In order to help new employees to understand the Group faster, adapt to the working environment, and integrate into the team, Dongguang Chemical organized a teacher-apprentice meeting in June 2019. Department leaders, factory leaders and new employees participated in this event. At the event, nearly one hundred pairs of mentors and apprentices completed the apprenticeship ceremony at the apprenticeship meeting.

Starting from May 2019, the Group has tried out the apprenticeship system for the students in the probation period and proficiency period to inherit the technical skills and corporate culture. At the same time, we are also exploring new ways to cultivate excellent talents. The purpose of this activity of Dongguang Chemical is to inherit the excellent tradition of "passing the belt" of old employees, strengthen the mutual learning of new and old employees, promote the new employees to realize the role change faster, and help the new employees grow quickly. At the same time, the old employees can also re-learn from the work content in the teaching guidance, so as to achieve the common growth of teachers and students' work skills.

- Staff basketball game



The Dongguang Chemical Trade Union Committee organizes the factories and functional departments to conduct the "Donghua Cup" professional basketball game every year. In October 2019, the logistics department, the electrical instrument department, the first plant and the second plant and other relevant departments formed a total of 8 basketball teams. Referees, commentators, scorekeepers and timekeepers and other staffs, a total of more than 70 people participated in this time game.

The players on the court actively attacked, defended hard, sweated, and showed themselves. Although the game was very tense, the players all followed the principles of friendship first and game second, and showed the style and level of the game. After a fierce competition, the winners and runners-up were selected, while the winners received trophy awards, the Group also awarded commemorative awards to the rest of the participants, and the game ended in the applause of the audience.

Through this professional basketball game, the atmosphere among employees was activated, the daily heavy work pressure was relieved, the spare time of employees was enriched. At the same time, the game has made "Donghua" spirit which including civilization and friendliness been carried forward.

- Company travel activities



To thank all employees for their hard work on weekdays, to enrich employees' cultural life, ease work pressure, enhance team cohesion, and further stimulate employees' enthusiasm for work, Dongguang Chemical Trade Union Committee specially organizes all employees to travel. In May 2019, the Group's employees went to Pingyao, Shanxi, Rizhao, Qingdao and other places for a three-day "Happy Work, Happy Travel" tourism activities.



In addition to visiting the scenic spots of the ancient city of Pingyao, enjoying the night view of the seaside in Rizhao, and tasting the local famous specialties, the employees of this event left traces of mutual help, reflecting the warmth and care between employees. To make Dongguang, a big family, more friendly, thereby enhancing the Group's cohesion, and then allowing employees to relax and cultivate their sentiments, can devote themselves to work with fuller enthusiasm.

- Celebrate the July 1st Party



To commemorate the 98th anniversary of the founding of the Communist Party of China, celebrating the great achievements and glorious achievements of the new China in the past 100 years, on 28 June 2019, Dongguang Chemical and the Agricultural Bank of China Dongguang County Branch jointly held the celebrations in the theme of "Celebrate July 1st, Commemorate the kindness of the Party, and follow The Party".

The content of this evening party is based on the actual situation of the Group, and the performance is small in size, with points and faces, from different angles and different positions to highlight the achievements of Dongguang Chemical. There are various types of programs, such as songs, recitations, magic, calligraphy, tooling shows, etc. The "Celebrate 1 July" activity, on the premise of inheriting and carrying forward the glorious tradition and excellent style of the Party, further strengthens the cohesiveness and combat effectiveness of the enterprise, inspires all employees to work enthusiasm with not forgetting their original intention and remembering the mission, and shows the Group's spirit of working hard.

- Magnificent 70 years, Striving for a new era



In September 2019, the Dongguang Chemical and Dongguang County Financial System jointly held a literary and artistic performance to celebrate the 70th anniversary of the founding of the People's Republic of China. The theme of this performance is "Magnificent 70 Years, Strive for a New Era". Through singing red songs, composing red songs, praising the motherland and other forms expressed their love for the Party and patriotism. At the same time, the employees performed all manner of entertainment and reviewed the Group's growth and development process, reflecting the long-term dedication of the employees to their own positions and dedication. Through this performance, employees are encouraged to continue to maintain the spirit of innovation and forging ahead, and being good.

3.1.4 Guidelines and measures to prevent child labor or forced labor

The Group strictly abides by state laws and regulations in labor and employment and strictly prohibits the employment of child labors. Through the recruitment, registration, labor contracts and other aspects of strict control, the Group avoid the use of child labor due to work errors. In the employment of the Group and suppliers in 2019, neither the use of child labor nor the use of adolescent workers for high manual labor was found.

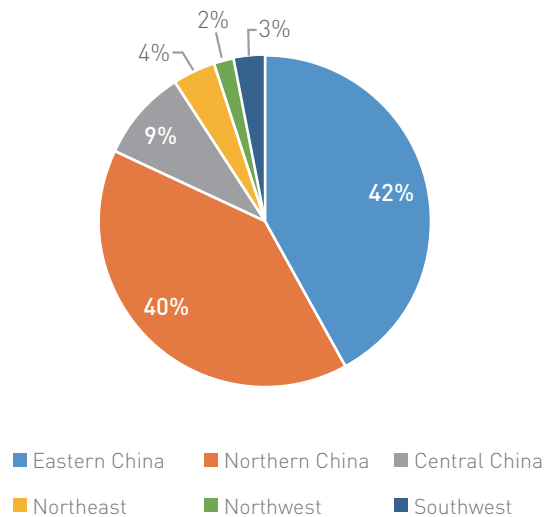
3.2 Analysis of Operation Management Status

3.2.1 Supply Chain Management Overview

To effectively evaluate and select qualified suppliers, optimize the Group's supply structure, and improve the Group's supply system to ensure that suppliers' supply quality and production delivery capabilities are in line with the Group's requirements, the Group has formulated corresponding regulations for supplier selection and evaluation management. The system, based on the Group's "supplier selection and evaluation management system", set up a responsibilities assessment team to assess the supplier's qualifications, in accordance with the norms of supplier evaluation, from which to select quality suppliers, in order to ensure the Group's normal production needs.

The Group has established a list of suppliers and updates them as circumstances change. For suppliers that have long-term cooperation, the Supply Department shall establish a file to obtain a copy of a valid business license and various related licenses. The Supply Department organizes related departments and personnel to conduct annual comprehensive evaluations of large suppliers and long-term suppliers at the end of each year, determine the business volume for the following year based on the evaluation situation, and record the evaluation results in written documents. The methods of selecting suppliers include bidding and price comparison. In 2019, Dongguang Chemical had a total of 303 suppliers and distributed in various regions in East China, North China, and China. Most of the suppliers were selected through the method of price-inquiry and price-comparison.

Suppliers regional distribution



3.2.2 Analysis of Anti-corruption Measures of Enterprise

According to the requirement of relevant national laws and policies, the Group has formulated anti-corruption company policies. Fraud, corruption, and other violations of professional ethics that damage the Group's economic interests can be reported through the hotline or email, and the Group will take corresponding penalties for those who violate the rules after verification; the unfair economic benefits obtained will be ordered to be removed; if it causes economic losses to the Group, it shall be liable for economic compensation in accordance with relevant national regulations. In 2019, Dongguang Chemical did not have any major corruption litigation cases.

3.3 Product liability

The Group has been in strict compliance with laws and regulations including the "Law of the People's Republic of China on Product Quality", the "Law of the People's Republic of China on the Protection of Consumer Rights and Interests"; and pays full attention to product quality and sales management. We ask for the high quality for each step from the production to delivery. It is required to continuously innovated breakthroughs in the areas of product enhancement and improvement in order to ensure the quality of products and to provide safer and more environmentally friendly products. The Group produces products in its own production facilities, so it has been constantly looking for solutions to improve the production processes, identifying new production facility models, optimizing equipment and upgrading production facilities to improve the quality and efficiency of production processes, and ensure that products are more efficient.

In addition, the Group has formulated and strictly implemented internal system procedures such as "Product Quality and Safety Management System", "General Principles of Intellectual Property Management", and "Sales Management System" to strive to enhance customer satisfaction and strengthen after-sales services to win customers' trust and support, to fulfill the responsibility of the Group for consumers and the society.

3.4 Community investment

The Group attaches great importance to safety in production, and has specially set up a fire department, equipped with professional fire equipment, and conducts fire drills from time to time. Therefore, it has skilled countermeasures for various fire accidents. When a fire occurs in the surrounding area, the Group's fire department will also be dispatched as soon as possible, volunteering to participate in fire fighting and extinguishing work, and contributing to the environmental safety of the Group's surroundings.

Secondly, since Dongguang Chemical is a coal-based urea production company, huge heat will be generated in the production process. The Group will send the waste heat generated in the production process into the office area through the pipeline, thereby solving the problem of heating in the office area of the Group in winter, and achieving the effect of energy saving and emission reduction. Even so, the Group still has abundant industrial waste heat in the production process. Under the leadership and coordination of the Dongguang County Government, the Group signed an agreement with Luyuan Company to provide the waste heat of the Group's gas cooling tower to Dongguang County Heating place.

In addition, in March 2019, Dongguang Chemical donated 41 tons of urea to Tangziling Village, Dongtuanbao Township, Laiyuan County, and distributed it to the households of the villagers in time to facilitate the farming and cultivation of local villagers and help the local economic development.

Finally, the Group does not forget to fulfill its social responsibilities while developing itself, insisting on participating in public welfare charity, investing in the community where it is located, and encouraging employees to actively participate in various public welfare donations. In addition, the Group also provides employment opportunities for the residents of the community, helps some residents find employment, creates opportunities for a better life, and contributes to the harmony of the community.

4 FUTURE PLANNING

4.1 The external risks and future plans

In recent years, China's energy industry structure has been continuously optimized, structural reforms on the energy supply side have continued to advance, and the release of clean energy supply capabilities has accelerated. The domestic energy industry is facing a transformation, and the rise in market energy supply costs will directly affect the Group's costs and reduce competitiveness. The rapid change of urea market has led to frequent fluctuations in urea market prices. The decline in urea prices directly affects the Company's sales performance.

Facing the constant changes in market supply and demand and the unstable fluctuations in the market price of urea, we have gradually increased the product categories appropriately to increase the degree of product diversification; actively introduced new technologies and technologies for energy saving and consumption reduction, and promoted technological upgrading and production process transformation. We will continue to develop downstream products related to urea, continue to expand the industrial chain and product chain, open new sales channels, and always pay attention to the new direction of industry development.

4.2 The internal risks and future Plans

Independent innovations such as research and development, technology investment, and application of information technology, professional ethics of senior management personnel, professional competence of employees, and other management factors such as organizational structure, operating methods, asset management, business processes, operational safety, employee health, and environmental protection and other safety and environmental protection factors are internal risks faced by enterprises, and are also risks arising from internal factors that enterprises should correctly identify.

We will continue to expand professional and technical personnel, develop technical strength, increase talent reserves, and improve the quality and knowledge reserves of the original employees of the enterprise to meet the needs of the development of the knowledge economy. In order to exert greater economic and social benefits, we will continue to actively study energy-saving and environmental protection technologies, increase investment in energy-saving and environmental protection treatment facilities, and effectively reduce production costs by adopting new technologies and new equipment. On the basis of increasing benefits, we will further strengthen energy-saving management and achieve green development of enterprises.

4.3 Future development strategy and business plan

The Company will continue to optimize its growth strategy, including effectively increasing production capacity, actively improving production quality and efficiency, and expanding the value chain to urea-related products such as automotive urea and other products. In addition, we will strengthen our strategic partnership with major customers, diversify our customer resource and identify strategic acquisition opportunities, achieve sustained and stable development, and actively respond to future challenges in order to provide more efficient and environmentally friendly products and quality services.