



秦皇岛港股份有限公司
QINHUANGDAO PORT CO., LTD.*

(a joint stock limited liability company incorporated in the People's Republic of China)
Stock Code : 3369

2021

CORPORATE SOCIAL
RESPONSIBILITY REPORT



*For identification purposes only

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ABOUT THIS REPORT

This is the Corporate Social Responsibility Report (or Sustainability Report) published by Qinhuangdao Port Co., Ltd. for the sixth consecutive year to communicate with stakeholders about the Company's social responsibility concepts, work initiatives and performance, and to respond to their needs.

1. REPORT PERIOD

From 1 January 2021 to 31 December 2021, the coverage of certain statements and data may go beyond the aforesaid period.

2. SCOPE OF REPORTING

The report covers the headquarters, internal departments and all branches and subsidiaries of Qinhuangdao Port Co., Ltd.

3. SOURCE OF DATA

The financial data in the report were extracted from the 2021 financial report of Qinhuangdao Port Co., Ltd. which is independently audited by Ernst & Young Hua Ming LLP; other data are derived from relevant systematic statistics of the Company.

4. REFERENCES OF PREPARATION

The report is prepared in accordance with the Stock Exchange of Hong Kong Limited (the "HKEx") Appendix 27 Environmental, Social and Governance Reporting Guide of the Rules Governing the Listing of Securities ("Listing Rules"), *the Guidelines on Environmental Information Disclosure by Companies Listed on the Shanghai Stock Exchange*.

5. RESPONSE TO THE PRINCIPLE OF THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE

Importance: In order to prepare this report, the Company conducted a materiality assessment procedure to determine the truthfulness and accuracy of the contents disclosed in this report as well as the contents of each subject area. Material analysis results for 2021 are presented in the "Materiality Assessment" section.

Quantification: Quantitative data were disclosed in the report for both environmental and social categories to demonstrate indicators and performance.

Balance: This report objectively discloses positive and negative information to ensure the balance of the contents.

Consistency: The indicators disclosed in this report disclose as much as possible the comparative data for two consecutive years based on actual management, helping readers to better understand the trend of indicators. Unless otherwise stated, the data disclosed in this report are based on the unified information collection process and working mechanism established by the Company to ensure that the data are comparable year after year.

6. DESCRIPTION OF KEY TERMS

For the convenience of expression, "Qinhuangdao Port Co., Ltd." is also referred to as "QHD Port" and "the Company".

7. ACCESS TO THE REPORT

You may browse or download the Chinese version of this report from the website of the Shanghai Stock Exchange, or the Chinese and English versions from the website of the Hong Kong Stock Exchange.

CHAIRMAN'S STATEMENT

2021 was an extraordinary year. The construction of a modern socialist country began with a new journey, and the implementation of China's new round of five-year economic development plans commenced. Under the guidance of Xi Jinping's Socialist Ideology with Chinese Characteristics for a New Era, QHD Port comprehensively strengthened the leadership of the party, adhered to the road of "innovation, coordination, greenness, openness and sharing", took business development as the core and benefit improvement as the target, and fulfilled political, economic and social responsibilities with high quality.

After a century of hardships, QHD Port is aware of the importance of sustainable development of enterprises, actively explores and practices, to strengthen practical action in corporate governance, business environment improvement, ecological security protection and social responsibility, in response to the high concern of all sectors of society and investors. In 2021, QHD Port won the "Golden Bull Secretary Award" and "Investor Relationship Management Award", ranking third among industrial A-shares listed companies of the Wind ESG rating list.

The Company insists on value first, customers first and professionalism, and has vigorously promoted the construction of "smart ports, green ports and safe ports", comprehensively upgraded enterprise management, insisted on innovation-driven development, stimulated the innovative vitality of talents, obtained 5 patents and applied for 10 patents throughout the year. A number of young people have taken important positions after training with the Post-80s and Post-90s generations gradually becoming the backbone of the Company's reform and development.

The Company continued to serve national strategies, seized opportunities for coordinated development of the Beijing-Tianjin-Hebei region, the "Belt and Road" initiatives and construction of the Hebei Free Trade Zone, vigorously developed the container transportation business of Qinhuangdao Port and Huanghua Port, opened foreign trade routes, built a comprehensive trade port, opened up the sea passage between central and southern Hebei, and deployed at Langfang International Airport Logistics Park, with key projects accumulating steadily and developing successively.

The Company adhered to the concept of in-depth practice of green development, comprehensively promoted port environment management, successfully passed on-site review of the green port grade evaluation, and the environment of the port area continued to improve. The Company established the concept of safe development and comprehensively carried out the construction of safety teams. No employee casualty accidents occurred during the Reporting Period. Responding to the national call, the Company has devoted itself to rural revitalization, systematically helped impoverished areas to shake off poverty, and assisted in the orderly development of local economic, political and epidemic prevention and control work.

In the past year, QHD Port sought improvement in a prudent manner, strove for progress to consolidate stability and successfully met various established targets. Facing future opportunities and challenges, the Company will adhere to innovative development concepts, take integrity as the foundation, compliance as the premise, risk control as the key, seek performance from management, vitality from reform and benefits from environmental protection, and continue to promote the development of green, low-carbon and high-quality models to live up to the expectations of the public and investors.

I wish QHD Port to continue high-quality development, work with unremitting diligence and resilience, and forge ahead courageously!

Cao Ziyu

Party Committee Secretary and Chairman of QHD Port

March 2022

STATEMENT OF THE BOARD

The Board, as the highest responsible body for QHD Port's ESG matters, attaches great importance to the performance of sustainable development. The Board of the Company makes decisions and leads the Company's ESG planning and annual work reports, arranges the Company's ESG work, assigns ESG work responsibilities to functional departments of the Company, and monitors the Company's ESG-related matters, considers and approves the Company's ESG management policies and strategies, assesses, determines and manages ESG risks, and reviews the progress of ESG goals to ensure that the Company's ESG management is in line with its development direction.

The Company has established an ESG Working Group to assist the Board in formulating the Company's ESG-related strategies and overseeing the implementation of ESG initiatives. The Company regularly holds internal and external events to communicate closely with stakeholders, identifies and evaluates important ESG issues, and reports the results to the Board for review, and takes the management and improvement of important issues as the annual focus of ESG work.

The Company attaches importance to the material impact that ESG risks may have on the Company. Based on the external socio-economic macro environment and the Company's development strategy, the ESG Working Group identifies the Company's environmental, social and corporate governance risks and opportunities, and then submits them to the Board for reviewing and determining the Company's ESG risks and opportunities. In 2021, QHD Port initially carried out the identification of climate change risks and opportunities, and set targets related to energy savings and emission reduction.

In the future, QHD Port will continue to strengthen its capability for managing climate risks and opportunities, assess relevant risks based on preliminary identification, and develop plans correspondingly.

This report discloses in detail the progress and effectiveness of ESG work of QHD Port in 2021, which was presented by the ESG Working Group for consideration and approval at the 32nd Meeting of the 4th session of the Board on 29 March 2022.

I. READY TO TAKE INITIATIVES AND SHOULDER RESPONSIBILITIES

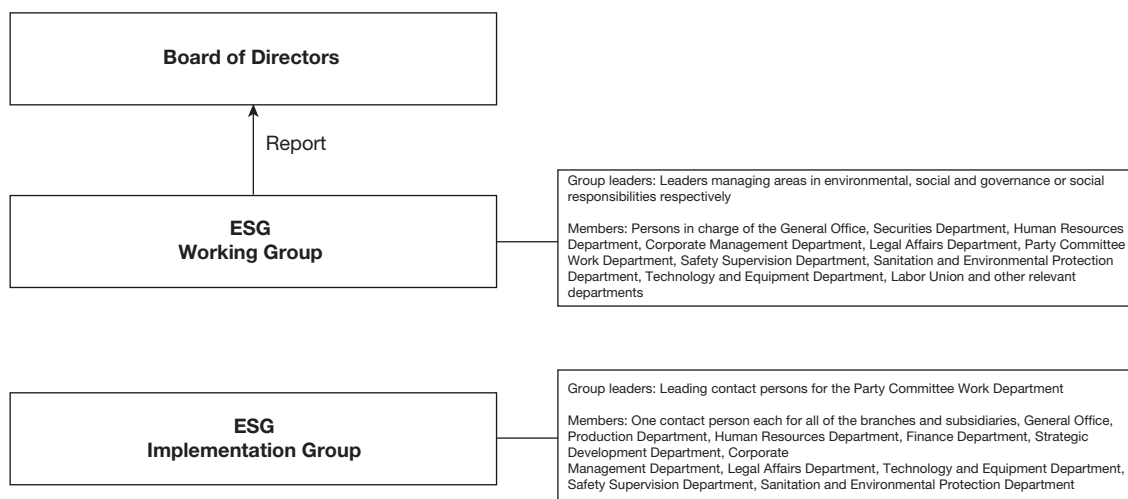
I. READY TO TAKE INITIATIVES AND SHOULDER RESPONSIBILITIES

QHD Port closely focuses on the outline of building a strong transportation power and the guidelines for building world-class ports, actively participates in macro planning covering the “Belt and Road” construction and coordinated development of the Beijing-Tianjin-Hebei region. With the target of high-quality development and orientation as a first-class port, it strives to promote the construction of “smart ports, green ports and safe ports”, practically fulfilling and undertaking social responsibilities and its duties as a state-owned enterprise.

1.1 Structure of Social Responsibility Management

Adhering to the corporate values of “contributing to the country, developing the enterprise, creating value for customers and fulfilling responsibilities for employees”, QHD Port perseveres in integrating ESG concepts into corporate development, continues improving ESG governance structure and operational mechanism, actively responds to stakeholders’ requirements and expectations, strives to practice the concept of sustainable development and serves as a model in fulfilling social responsibility in the industry.

QHD Port has established an ESG governance structure covering the Company and its affiliated enterprises, the ESG Working Group, which is composed of principal responsible persons of all departments of the Company and regularly reports annual ESG-related matters to the Board. The Board bears full responsibility for the Company’s ESG-related matters. The Company arranges for contact persons at the headquarters and all departments of branches and subsidiaries. Led by the Party Committee Work Department, it has established the ESG Implementation Group specifically implementing concrete work in areas of ESG or social responsibilities.



I. READY TO TAKE INITIATIVES AND SHOULDER RESPONSIBILITIES

1.2 Communication with Stakeholders

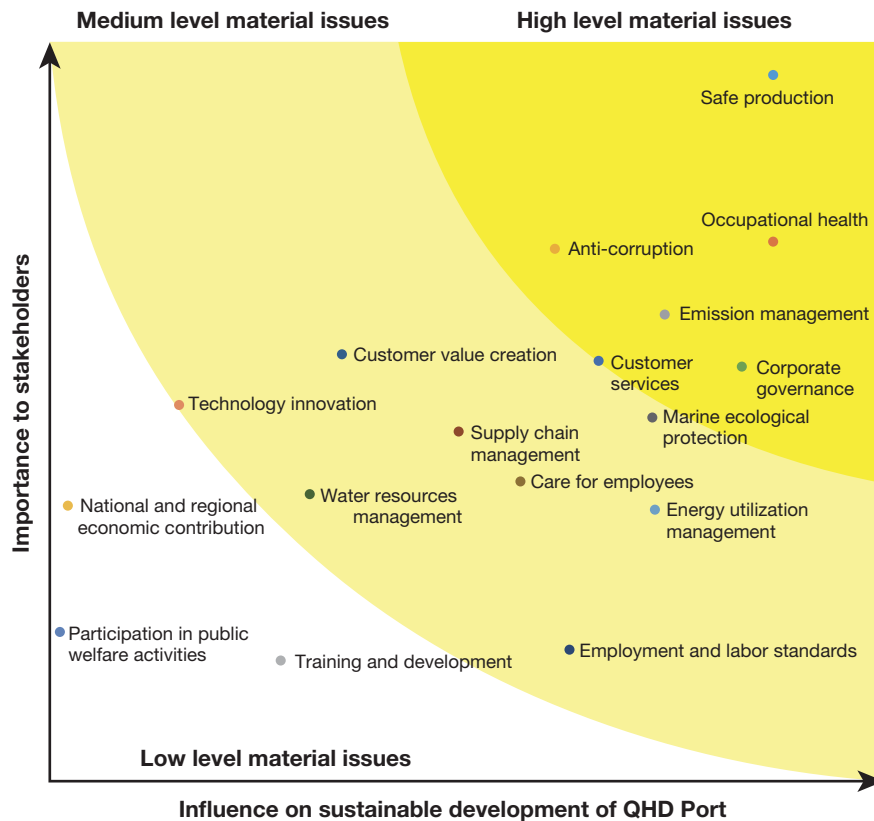
QHD Port attaches great importance to communicating with stakeholders, identifying feedback and expectations from stakeholders, making targeted improvements in ESG performance of the Company and responding effectively to the requirements of all parties.

Stakeholders	Requirements and Expectations	Communication and Response
Government	<ul style="list-style-type: none"> • Compliance with laws and regulations • Payment of taxes according to law • Support for economic development 	<ul style="list-style-type: none"> • Conducting business in compliance with relevant laws and regulations • Paying taxes according to law
Investors	<ul style="list-style-type: none"> • Return on investment • Growth of business and earnings • Risk management • Information disclosure 	<ul style="list-style-type: none"> • Regular disclosure of operational information • General shareholders' meeting • Results conference, roadshows • Investor summits
Customers	<ul style="list-style-type: none"> • Provision of quality products and services • Meeting customers' diversified needs • Creation of value for customers 	<ul style="list-style-type: none"> • Assurance of service quality • Protection of customer information • Survey of customer satisfaction
Employees	<ul style="list-style-type: none"> • Protection of employee interests • Sound development paths • Protection of occupational health • Work and life balance 	<ul style="list-style-type: none"> • Provision of good remuneration and welfare • Improvement of career development paths • Implementation of employee training
Partners	<ul style="list-style-type: none"> • Open, fair and equitable purchase • Compliance with contracts 	<ul style="list-style-type: none"> • Performance of contracts according to law • Open tendering • Project cooperation
Environment	<ul style="list-style-type: none"> • Energy savings and emission reduction • Protection of ecological environment • Response on climate change 	<ul style="list-style-type: none"> • Managing emissions • Increasing efficiency of resources and energy used • Participation in environmental protection welfare
Society and the Public	<ul style="list-style-type: none"> • Engagement in community development • Support for public welfare 	<ul style="list-style-type: none"> • Public welfare charity • Volunteer services • Rural revitalization

I. READY TO TAKE INITIATIVES AND SHOULDER RESPONSIBILITIES

1.3 Materiality Assessment

According to the requirements of the *Environmental, Social and Governance Reporting Guide*, with reference to international ESG initiatives and standards and industry ESG issues generally concerned, QHD Port conducts an anonymous questionnaire survey every two years or so to identify and screen ESG issues. After the questionnaire data is analyzed and evaluated, a material issues matrix is prepared, and alternative issues are determined and submitted to the Board for consideration and approval. Based on the assessment of all social responsibility issues by stakeholders and senior management of companies, we determined the material issues matrix for the Company's 2021 social responsibilities as shown below:



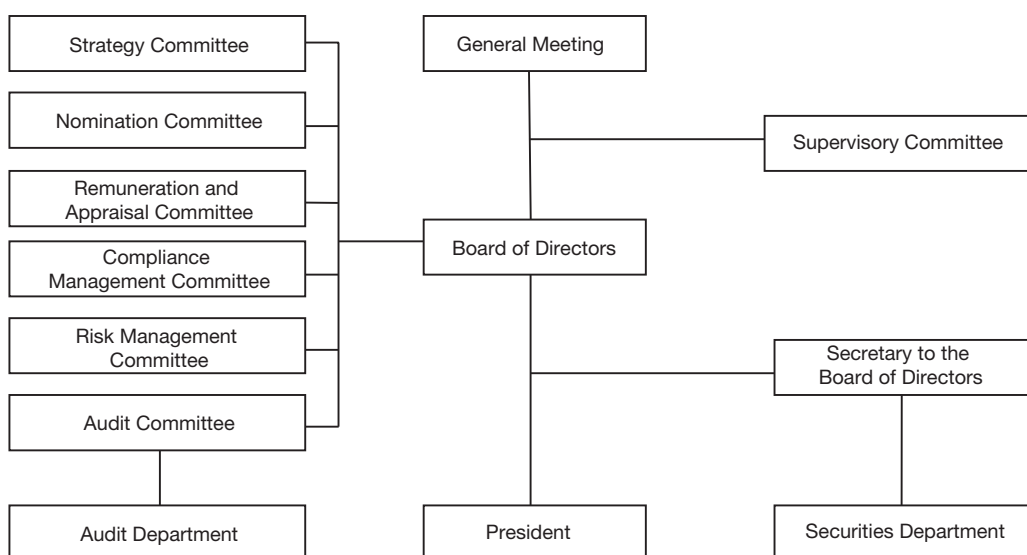
II. COMPLIANT OPERATION AND STEADY ADVANCEMENT

II. COMPLIANT OPERATION AND STEADY ADVANCEMENT

QHD Port has established a sound modern enterprise system to continuously strengthen the organic integration of corporate governance, improve the corporate governance system, and build a dynamic, streamlined, efficient and smoothly functioning institutional mechanism. It has also operated in good faith, managed in compliance and governed with honesty and high efficiency to practically safeguard the interests of investors and constantly increase the value of the Company.

2.1 Improving Corporate Governance

QHD Port has been strictly in compliance with the Company Law of the People's Republic of China and other laws and regulations and regulatory requirements of the places where it is listed and continued to improve the governance frame of the Company. The General Meeting, Board of Directors and its special committee, the Supervisory Committee, management under the General Manager have clear rights and responsibilities and are efficient, ensuring the stable operation of the Company.



General Meeting

The General Meeting is the Company's supreme authority. The Company convenes the General Meeting strictly in compliance with the Articles of Association, and fully ensures that all shareholders are entailed equal status and exercise their rights to know, participate, inquire and vote. In 2021, the Company convened 1 annual general meeting, 1 extraordinary general meeting, 1 A-shares shareholders class meeting and 1 H-shares shareholders class meeting in total, with all 20 reviewed resolutions being passed.

Board of Directors

The Board of Directors is the permanent decision-making body of the Company and is responsible to the General Meeting. The directors abide by the principles of diligence, integrity and pragmatism in favor of all shareholders, and fulfill duties conscientiously. In 2021, the Company convened a total of 7 Board meetings, reviewed a total of 46 resolutions including the annual report and ensured that the Company's work was carried out in an orderly manner.

II. COMPLIANT OPERATION AND STEADY ADVANCEMENT

2.2 Leading the Industry through Efficient Operation

As a pilot enterprise of the “Double-Hundred Action” determined by the State-owned Assets Supervision and Administration Commission of the State Council (“Double-Hundred Action” is a special action for the reform of state-owned enterprises organized by the State-owned Enterprise Reform Leading Group of the State Council, which selected more than 100 subsidiaries of central enterprises and more than 100 local key state-owned enterprises), QHD Port combined required actions with innovative exploration, formulated the 2021 to 2022 Comprehensive Reform Implementation Plan for “Double-Hundred Enterprises” and identified 22 key reform measures in 6 areas. QHD Port successfully held a “Double-Hundred Enterprise” on-site observation meeting to promote the Company’s experience and practice externally. In 2021, QHD Port was recognized as a Three Special System Reform Evaluation A-level Enterprise under “Double-Hundred Enterprises” by the State-owned Assets Supervision and Administration Commission of the State Council.

The Company organized and carried out the clean-up of production and operation management rules and regulations, issued the “List of Current Effective Rules and Regulations” and the “List of ‘Regulations, Reforms, and Abolitions’ of Rules and Regulations” and ensured that there were rules for production and operation of the Company. Combined with the Company’s actual situation, it deepened benchmarking and improvement actions, and carried out benchmarking such as listed company performance benchmarking, safe production benchmarking and service quality benchmarking, achieving better results. The Company promoted typical demonstrations, summarized and processed the experience and practice in management work, and reported innovative achievement in enterprise management modernization. The Company carried out the creation of governance demonstration enterprises, sped up improvement of governance ability and governance level from point to area and converted its advantage as a modern enterprise system with Chinese characteristics to governance effectiveness, so as to continue to build a corporate governance benchmark.

The Company has always insisted on safeguarding the rights and interests of investors, actively carried out communication and exchange with investors, and maintained close relationships with shareholders and investors via performance briefing, conference calls, investor hotline and SSE e-Interaction and other ways, which has effectively improved the transparency of the Company and smooth communication with the capital market. In 2021, the Company organized annual results briefings, with in-depth participation in the online collective results briefing of listed companies in Hebei and provided efficient and convenient channels for investors to receive a comprehensive understanding of the Company’s business performance, development strategy and other important information through in-depth and detailed communication with investors, building a strong image of the Company in the capital market.

II. COMPLIANT OPERATION AND STEADY ADVANCEMENT

Table: Business Management Related Awards Granted to QHD Port

Awards	Name of Program and Unit	
Title of Honor of State-owned Enterprise Corporate Governance Demonstration Enterprise by the State-owned Assets Supervision and Administration Commission of the State Council	Qinhuangdao Port Co., Ltd.	
Title of A-level enterprise in the Special Evaluation of the Three System Reforms of "Double Hundred Enterprises" awarded by the State-owned Assets Supervision and Administration Commission of the State Council	Qinhuangdao Port Co., Ltd.	
23rd "Golden Bull Award" – "Investor Relations Management Award"	Qinhuangdao Port Co., Ltd.	
Enterprise Quality Management Meritorious Enterprise in Hebei for 40 Years	Qinhuangdao Port Co., Ltd.	
2021 National Excellent Quality Management Team	Metrology Pioneer QC Team in Qinhuangdao Zhongli Company	
Excellent Quality Management Team of Hebei Province in 2021	1.	Metrology Pioneer QC Team in Qinhuangdao Zhongli Company
	2.	Youchuang Pioneer QC Team in Grocery Company of QHD Port
	3.	Signal Maintenance QC Team of Railway Company's Electric Dept of QHD Port
	4.	Material Procurement QC Team of Material Supply Center of QHD Port
	5.	QC Team in Comprehensive Service Center (Plumbing) Reclaimed Water Service Team of QHD Port
	6.	Westport Technical Design QC Team in Comprehensive Service Center (Plumbing) of QHD Port
First Prize of Hebei Province Enterprise Management Modernization Innovation Achievement in 2021	1.	Ninth Company of QHD Port-Talent-driven engine "five core circles" management reform and development practice
	2.	Material supply center of QHD Port-Construction and implementation of the "six in one" material management pattern based on the "integration" model
Second Prize of Hebei Province Enterprise Management Modernization Innovation Achievement in 2021	1.	Ninth Company of QHD Port-Comprehensive management application based on the perspective of total factor productivity
	2.	Ninth Company of QHD Port-Running a comprehensive management system boosting refined management to a higher level
	3.	Seventh Company of QHD Port-Innovation and Application of Port Enterprise Management Mechanism Based on Green Development
	4.	Railway Transport Company of QHD Port-Application of PDCA cycle method in quality management of railway signal equipment
Third Prize of Hebei Province Enterprise Management Modernization Innovation Achievement in 2021	1.	Exploration and practice of "three modernizations and one innovation" in enterprise grass-roots safety management in Material supply center of QHD Port
	2.	Caofeidian Coal Company of QHD Port-Transformation of management mode and improvement of management level based on the transformation of intelligent yard operation system

II. COMPLIANT OPERATION AND STEADY ADVANCEMENT

2.3 Compliance Operation in Accordance with Laws

The Company has established comprehensive risk identification, prevention and control mechanisms based on the Comprehensive Risk Management System of Qinhuangdao Port Co., Ltd., specified the preferences to and ratings of various risks and has chosen the risk management strategies applicable to the Company on the basis of the nature of various businesses and the external environment. The Company provides necessary risk reminders to management at all levels when appropriate to have risk alerts in place by strengthening the management and control of unfavorable events and troubleshooting of potential risks in its ordinary course of operation and management. In 2021, the Company continued to apply risk management and control to its operation and development processes as a whole and adhered to both strategy-oriented and risk control, and improved risk prevention and management to ensure stable operation and the sustainable and sound development of the Company.

We adhere to the basic principles of “corporate governance according to laws and punishment on violation of laws”, based on the requirements of the Guideline on Regulating the Compliance Management of Enterprises of the Provincial SASAC (For Trial Implementation) (《省國資委監管企業合規管理指引(試行)》). The Company has advanced the construction of corporate compliance management systems, to establish and optimize dedicated compliance management systems, specified responsibilities and divisions on compliance management, streamlined and identified compliance risks to ensure the Company’s compliance operation. In addition, active efforts are made on publicity and education for rule of law within the Company, to cultivate a compliance culture among all staff to gradually build the concept of “compliance on everything, at any time, by everyone, compliance creates value”, as well as by amending and improving our systems in a timely manner based on changes in policies and regulations. The Company has strictly implemented 100% legal review rate requirements for important operation decisions, rules, regulations and major contracts.

The Company strictly complies with various relevant laws and regulations in China and has established complete policies and systems on building a clean and honest party and anti-corruption, increased and refined daily supervision to rectify work style and discipline and combat corruption under the concept of systematic governance, and made new progress and achieved new results in discipline supervision. In 2021, the Company strengthened supervision under the normalized epidemic prevention and control requirements. The supervisory group conducted precise supervision and guidance in major entities, and the disciplinary inspection group carried out overall supervision and guidance in resident entities, generating daily and weekly reports on 68 issues, rectifying 469 issues. Focusing on increased supervision on material work arrangements, such as marketized reform, cost and expenditure reductions, the Company has promoted the complete rectification on 95 major problems of the relevant entities. The Company continued to rectify the “four undesirable work styles”, conducted special inspections on the work style and discipline of meetings, and enhanced discipline and ethics education.

III. BEARING IN MIND THE COUNTRY'S MOST FUNDAMENTAL INTERESTS AND BUILDING THE BRAND IMAGE THROUGH SERVICES

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QHD Port actively responded to the requirements on construction of a coastal economic belt in Hebei Province, strived to involve itself in the "Belt and Road" initiatives, developed multimodal transport to smooth trade channels and participated in promoting the coordinated development of the Beijing-Tianjin-Hebei region and construction of Xiong'an New Area, to further facilitate complementary advantages of ports in the region and win-win cooperation. The Company has vigorously developed its principal business and improved service functions with digitalized technologies to upgrade customers' experience and continue to enhance the quality of port services.

3.1 Serving National Strategies

QHD Port firmly seized significant development opportunities in the coordinated development of the Beijing-Tianjin-Hebei region, the "Belt and Road" initiatives and construction of the Hebei Free Trade Zone, and actively undertook projects to serve national strategies. Based on the functional positioning of major logistics bases for modern business and trade in China, the Company has formulated green and low-carbon sea-rail multimodal transport schemes and implemented open-up policies in a wider scope and at a deeper level, to fully integrate into a new development pattern with dual circulation in domestic and overseas businesses.

As an important pivot port of the "Belt and Road" initiatives and the most convenient and cost-effective exit port in Xiong'an New Area, Cangzhou Huanghua Port has a vast economic hinterland and significant development potential; it is also an important presence of QHD Port in the south of Hebei Province, and the Company is developing it into an international trading port.

Tangshan Caofeidian Port, as a gateway to northeast Asia, is an import transit port for ore and the major pivot port of energy resources and raw materials in northern China. QHD Port has built 11 production berths at the port, with a designed annual throughput of 116 million tonnes, which has become a new economic growth driver of the Company.



Cangzhou Huanghua Port



Tangshan Caofeidian Port

III. BEARING IN MIND THE COUNTRY'S MOST FUNDAMENTAL INTERESTS AND BUILDING THE BRAND IMAGE THROUGH SERVICES

Serving the “Belt and Road” Initiatives

QHD Port has actively developed multimodal transport to smooth trade channels and serve the “Belt and Road” initiatives. In September 2021, the Company formulated green and low-carbon sea-rail multimodal transport schemes and reached cooperation consensus with original suppliers of goods and enterprises around Baoding to mutually create and develop new sea-land channels for “Baoding-Qinhuangdao Port-Incheon”. The Company launched the “South Korea-China-Mongolia” international container train on sea-railway combined transportation at Qinhuangdao Port, which achieved stable operation for consecutive years. The Company also, together with railways, shipping companies and other entities, applied for the 4th batch of national demonstration projects of multimodal transport with Qinhuangdao Port as the center.

Case: QHD Port launched a new low-carbon sea-land channel for “Baoding-Qinhuangdao Port-Incheon”

In September 2021, QHD Port launched a new sea-land channel for “Baoding-Qinhuangdao Port-Incheon”, which provides inland enterprises in Hebei Province with a new channel starting from Baoding, Hebei, using Qinhuangdao Port as a transit base, and finally arriving at Incheon, South Korea, which demonstrates that green and efficient cross-border sea-rail multimodal transport at Qinhuangdao Port has reached a new level. This channel mainly serves domestic trade, foreign trade, “Belt and Road”, China-Europe Railway Express and China-ASEAN Railway Express businesses, which cover East China and South China in the PRC, and Europe, the United States, Japan, South Korea and Central Asia, effectively promoting the flow of goods between regions and economic and trade exchanges, contributing to create a new development pattern of “dual circulation”.



The first sea-rail intermodal container train from Jingxiongbao International Smart Port pulling into Qinhuangdao Port

Implementing the coordinated development of Beijing-Tianjin-Hebei and devoted to the development of Xiong'an New Area

In 2021, centered on the coordinated development of the Beijing-Tianjin-Hebei region, the Company continued to strengthen business cooperation with Tianjin Port by increasing the capital in their joint operation, namely Jinji Container Company (津冀集装箱公司), in their shareholding proportion to fully leverage the advanced experience and strengths of Tianjin Port in container transportation with aims to promote the stable increase in throughput of Jinji Container Company. At the same time, the Company actively conducted a study on relevant national policies and prepared for investment in the Langfang International Airport Logistics Park project to further strengthen regional cooperation and develop a new pattern for the coordinated development of seaports, inland ports and airports.

In 2021, centered on the development of Xiong'an New Area, the Company accelerated Ore Terminal Phase I (continued construction) project at Huanghua Port. By the end of 2021, the project completed the acceptance of hydraulic structure, road yard and dredging of the port basin. It is planned to be officially put into operation in 2022 and developed into the most convenient seaport in Xiong'an New Area and an integrated trade port with increasingly comprehensive functions.

III. BEARING IN MIND THE COUNTRY'S MOST FUNDAMENTAL INTERESTS AND BUILDING THE BRAND IMAGE THROUGH SERVICES

Ensuring the smooth flow of national energy resources

In 2021, QHD Port actively and successfully undertook the social responsibility of ensuring the supply of coal and stabilizing the price and pooled its full efforts in supporting the smooth transportation of energy resources. The Company has formulated and published the Coal Transportation Support Plan During the Period of Stabilization of the Supply and the Price 《保供穩價時期煤炭運輸保障預案》, established an all-weather coordination mechanism based on the system of “Qinhuangdao Port, maritime affairs, pilotage, railways, tugboats, shipping agents and upstream and downstream customers” to strengthen information sharing on coal yard storage, freight volume, the number of ships at anchorage, meteorological monitoring and early warning in an effort to improve the plan fulfillment rate, stack turnover rate, berth utilization rate and equipment availability. Meanwhile, the Company coordinated with its corporate customer to actively respond to price limit requirements and contributed its efforts to adjust coal pricing and stabilize the market, playing an important role as China’s “coal price stabilizer” and “water pool for transporting coal from the north to the south” at a critical time.

Case: QHD Port supported coal supply

On 20 October 2021, the officer chiefly in charge of the Department of Evaluation and Supervision of the National Development and Reform Commission led a team comprising, among others, the Department of Price, Price Monitoring Center, National Center For Public Credit Information, China Economic Herald to Qinhuangdao Port to supervise the work of ensuring the coal supply and stabilizing prices.

On 17 January 2022, Li Xiaopeng, the Minister of Transport, held meetings via video link with six transport companies including QHD Port to enquire about energy supply during the Spring Festival and winter.



Video supervision by leaders of the Ministry of Transport



On-site supervision by the National Development and Reform Commission

III. BEARING IN MIND THE COUNTRY'S MOST FUNDAMENTAL INTERESTS AND BUILDING THE BRAND IMAGE THROUGH SERVICES

3.2 Strengthening the Principal Business of Ports

As the world's leading operator of public ports for dry bulk cargoes, QHD Port mainly operates a total of 71 modern professional berths in Qinhuangdao Port, Tangshan Caofeidian Port Zone and Cangzhou Huanghua Port Zone and handles coal, metal ores, oil and liquefied chemicals, containers and general cargoes, and has established a port logistics chain with stevedoring, stacking, warehousing, transportation and other fundamental services as well as freight forwarding and multimodal transport. In 2021, QHD Port made new progress in key business such as coal, metal ore, general cargo and containers

Coal Transportation Business

QHD Port has accurately developed sources of goods, vigorously cultivated high-quality customers, and continuously improved profitability. The Company paid close attention to changes in national industrial policy and market information, enhanced initiatives and science in production organization and ensured that the ports operated effectively. The Company also formulated upstream and downstream linkage schemes, combined online with offline communication, and carried out home marketing backed by data.

The Company has prepared and issued a standard system of professional coal terminal production operations and conducted a comprehensive review on the system framework in coal business management, production process control and operation standards of Qinhuangdao Port, thereby improving the standardization and refinement level of coal business at ports. The Company has further strengthened cooperation with railways, monitored railway transportation trends in a timely manner and ensured effective transfer of large-scale sources of goods.

Case: QHD Port scientifically coordinated Qinhuangdao Port and Caofeidian Port in production integration

In 2021, QHD Port implemented the strategy of "A Game of Chess in the Overall Situation" and scientifically coordinated Qinhuangdao Port and Caofeidian Port in production integration. Through formulating plans to overhaul and update the equipment, the Company scientifically organized production, coordinated traffic arrangements, leveraged subsidiaries characteristics to complement their mutual advantages and ensured that large-scale sources of goods were transferred smoothly. In addition, the Company strengthened the management of unloading dispatch, urged subsidiaries to compress auxiliary work time to improve unloading efficiency, strengthened dispatch command and strictly implemented a realistic unloading system, ensuring efficient and orderly production.



Coal Terminal Phase 5 in Qinhuangdao Port Zone



Coal Terminal Phase 2 in Caofeidian Port Zone

III. BEARING IN MIND THE COUNTRY'S MOST FUNDAMENTAL INTERESTS AND BUILDING THE BRAND IMAGE THROUGH SERVICES

Metal and Iron Ore Transportation Business

QHD Port has conducted metal and iron ore transportation business and strived to improve its efficiency and service level. The Company has deeply exploited the potential of port value-added services and proactively carried out bonded and mixed ores business. Among which, the new business model of "Whole ship stored and mix as required" was approved by the General Administration of Customs, which significantly reduced the time for approval and helped meet customer demand.

In 2021, Bauxite business grew, and the Company continued to consolidate its partner relationships with Hangjin Group (杭錦集團), CHINALCO (中鋁), East Hope (東方希望) and other clients on the basis of stabilizing the customer base of Lubei (魯北) and Shandong Innovation (山東創新).

In 2021, Huanghua Port Zone firstly launched the reverse ore powder transportation business of "Huanghua Port-Cangang Port Railway-Baoshen Railway", promoting the development of "pendulum transportation" and "revolution rail" business for the port train. The "2+6" operation mode was adopted in Huanghua Port Zone, which can effectively reduce the waiting time for ship anchorage and improve the berth utilization rate. In 2021, Cangzhou Ore Company increased the number of "2+6" operating vessels by 103% year-on-year, reaching a quarter of the number of operating vessels.

Case: Steady progress in the Phase 1 (expansion) metal ores terminal project of Huanghua Port

With a total investment of about RMB2.36 billion, the Phase 1 (expansion) of metal ores terminal project of Huanghua Port of QHD Port involved construction of two specialized ore berths of 200,000 tonnes and corresponding supporting facilities. The total length of the main berth of the wharf is 682 meters, the total width of the cap is 37 meters and the designed annual handling capacity is 20 million tonnes. All ports are transported by water, of which 7 million tonnes are transported by railway, and 13 million tonnes are transported to enterprises near the port by public belt conveyor. In the future, the Phase 1 (expansion) of metal ores terminal project of Huanghua Port will continue to promote the intercommunication and integration of ports around Bohai Sea and the "Beijing-Tianjin-Hebei Integration" logistics ring and promoting the comprehensive competitiveness of ports in the province and contributing to the construction of smart ports.



Ore Terminal in Huanghua Port Zone undergoing loading and unloading operations

III. BEARING IN MIND THE COUNTRY'S MOST FUNDAMENTAL INTERESTS AND BUILDING THE BRAND IMAGE THROUGH SERVICES

General Cargoes Transportation Business

QHD port continued optimizing the cargo structure, improved the forward-looking production planning from fine operation, and formulated the production peak response plan in advance. By setting up special fields, professional loading and unloading processes, dredging port road renovation and a series of new measures, the Company successively undertook the supply of export bridge components for the China Railway Shanhaiguan Bridge and the suitable supply of natural gas and water pipe of Zhongyou BSS. With the continuous expansion of copper concentrate, wind-power blades such as loading and unloading service brand, QHD Port strengthened cooperation with railways, taking Yangang sea-rail multimodal transportation business to a new level.

Case: Speed up green channel of sea-rail multimodal transport of QHD Port

QHD Port built a “safe, high-quality and efficient” sea-rail multimodal transportation logistics channel, combined railway integrated transport and port integrated transport, further optimized the transport structure, reduced logistics costs, contributed green forces to improve environmental quality and imposed stringent emission control measures. In 2021, 1.4 million tonnes of coil steel were delivered by railway, accounting for 82.4% of the total port volume of coil steel. More than 100,000 tonnes of copper concentrate were delivered by railway, accounting for 11.1% of the total dredging volume of copper concentrate.

To speed up the channel of sea-rail multimodal transportation, the Company built a real-time “port-railway-enterprise” communication platform to capture the dynamic status of goods collection at ports, shipping and equipment operation at any time. Thus, vessels and goods are closely connected by smooth linkages between railways and ports to improve the efficiency of both loading and unloading.



The general cargo terminal in Qinhuangdao Port Zone
undergoing coil steel loading and unloading operations

III. BEARING IN MIND THE COUNTRY'S MOST FUNDAMENTAL INTERESTS AND BUILDING THE BRAND IMAGE THROUGH SERVICES

Container Business

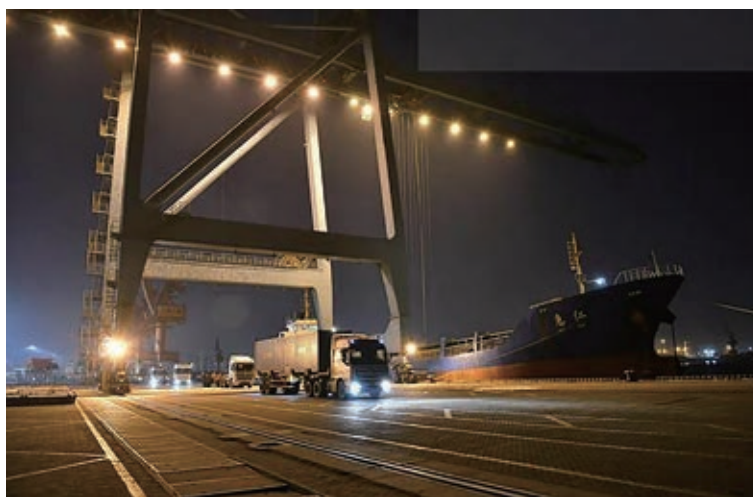
QHD Port made strenuous efforts in developing its container transportation business by focusing on improving its service level to contribute to the development of the local economy. The Company launched the “Qinhuangdao-Qingdao” container shipping route, opened a new shipping channel from Hebei to Shandong, added direct shipping routes to East China and South China at Huanghua Port to diversify its logistics channels and developed the Qinhuangdao-Shanghai East China shipping route with Tangshan Port, which bridged the gap in direct shipping routes from Qinhuangdao to Shanghai. In 2021, the Company recorded container throughput of 1,494,990 TEU, representing an increase of 11.18% as compared with 2020.

The Company has progressed with the construction of inland ports, with 10 newly built container inland ports and sites centering on Qinhuangdao Port or Huanghua Port in Datong, Shanxi, Tangshan, Baoding, Shijiazhuang of Hebei and Baotou, Inner Mongolia to improve the Company's scope and service ability to the hinterland.

The Company has actively improved and promoted green transformation in its bulk cargo transportation, with “dry bulk cargoes to containers”, an additional container repair and adjustments service provided in port, such that customers can easily transfer containers.

Case: QHD Port launched the “Qinhuangdao-Qingdao” domestic trade container shipping route

On 5 January 2021, QHD Port and Shandong Port Shipping Group (山東港口航運集團) jointly launched the “Qinhuangdao-Qingdao” container shipping boutique route. As the first domestic trade shipping route between Hebei and Shandong, it opened up a new shipping channel between Qingdao Port in Shandong and ports in the Bohai Rim, and through the addition of access to Yantai Port in Shandong, it would promote the flow of goods and economic and trade exchanges between regions and provide customers in the hinterland with more efficient and economical service.



“Qinhuangdao-Qingdao” domestic trade container shipping route

III. BEARING IN MIND THE COUNTRY'S MOST FUNDAMENTAL INTERESTS AND BUILDING THE BRAND IMAGE THROUGH SERVICES

3.3 Upgrading customer service

QHD Port has strictly complied with the Contract Law of the People's Republic of China 《中華人民共和國合同法》, the Railway Law of the People's Republic of China 《中華人民共和國鐵路法》, the Procedures for Railway Freight Transportation 《鐵路貨物運輸規程》 and other relevant laws and regulations, constantly improved its service system, and amended the Ten Commitments for Service Quality 《服務質量十項承諾》 to regulate services and quality standards and improve service functions, striving to provide customers with premium services.



The Company closely followed demands from its customers to effectively “create value for customers”, managed 26 large-scale shippers by category, set up indicators for targeted marketing services, regularly compared and analyzed railroad track scale data, and compared the belt scale data and water gauge data of each ship. With this data driven approach, value-added services are continuously optimized to safeguard the vital interests of customers. In 2021, the weighted average customer service satisfaction rate of QHD Port's all-cargo operation companies was 97.96 points, and there were zero complaints on service quality.

By adhering to the “customer-centered” service concept, the Company has developed and promoted an online business platform, which enables it to transfer port business from offline to online and deepen electronic and paperless port operation documentation work. This online business platform model has been replicated at Huanghua Port Zone and Caofeidian Port Zone, offering customers with more efficient and customized services.

Case: QHD Port's “Internet + Service” upgrade in all respects

On 26 January 2021, the first electronic document for oil transport business received by the Company through the online business platform officially entered the pending review process, which marked the realization of online operation for all cargo business of QHD Port's East and West Port Zones. At present, the integrated online business platform has been applied in Qinhuangdao Port Zone, Tangshan Caofeidian Port Zone and Cangzhou Huanghua Port Zone in all respects, realizing full coverage of the online business platform in all cargo businesses in these three port zones. Meanwhile, the Company completed the design of a data interface between the online platform and ICBC E-enterprise payment and bridged the data gap with the bank's online payment platform. Information sharing and interconnection have made phased progress. The platform's well-established functions and convenient services are well recognized by a wide range of users.



Online business handling interface on QHD Port's Online Business Platform

III. BEARING IN MIND THE COUNTRY'S MOST FUNDAMENTAL INTERESTS AND BUILDING THE BRAND IMAGE THROUGH SERVICES

3.4 Regulating supplier management

QHD Port regards its suppliers as important partners, and works with them to create a mutually beneficial and win-win business environment. The Company has developed all-dimensional appraisal and assessment systems for suppliers, adopts dynamic management measures on suppliers in accordance with the Measures for Supplier Management (《供應商管理辦法》), strictly controls the selection, assessment and appraisal of suppliers, irregularly conducts all-dimensional reviews on suppliers, enters into letters of undertaking on integrity operation to guide suppliers to perform their contracts in good faith and establishes supplier management patterns with “loose access, strict management, openness and fairness”. By the end of 2021, the Company had a total of 595 suppliers.

Table: QHD Port's suppliers in 2021

Region	Hebei province	Outside Hebei province
Number	382	213

According to the Safety Filing System for Suppliers (《供應商實施安全備案制度》), the Company implemented a safety filing system for relevant suppliers of steel, gas, fuel oil and recycling of waste materials, and gave priority to procurement of products that were environmentally friendly or less harmful and had high resource utilization and low energy consumption throughout the life cycle, protected the rights and interests of laborers, and promoted environmental protection and social responsibilities along the entire supply chain.

Case: Supplier service + online e-commerce platform

The Company distributed the Supplier Operation Handbook (《供應商操作手冊》) and established a WeChat account for supplier relationship management to offer easy access to supplier communication, material procurement platform registration and business development. Meanwhile, the Company further expanded and enriched the coverage of suppliers and established a port mall by introducing e-commerce to form a diversified procurement model of “Platform + Mall” and further improve procurement efficiency and user experience.



Supplier Operation Handbook



Material Supply Platform interface

IV. LEADING SMART PORTS WITH TECHNOLOGY EMPOWERMENT

IV. LEADING SMART PORTS WITH TECHNOLOGY EMPOWERMENT

QHD Port has implemented the spirit of the National Science and Technology Work Conference, deeply cooperated with leading science and technology enterprises, improved science and technology innovation platforms and enhanced its capabilities on independent innovation. Benchmarking world-class ports, the Company actively builds green ports, promotes the construction of safe ports and provides intelligent guarantees to the transformation and upgrading of ports.

4.1 Led by Science and Technology Projects

Leveraging on digitization and intelligence, QHD Port has carried out research on technological innovation. It cooperated in the research and development of “Research and Application of Key Technology for Dust Suppression and Material Leakage Control of Belt Conveyors for Bulk Cargoes at Ports” (散料碼頭帶式輸送機抑塵、物料撒漏治理關鍵技術研究及應用), “Key Technology and Application of Large Portal Reclaimers with Bucket-wheel Reclaimer Systems for Bulk Cargoes at Ports” (散料港口大型門式取料機斗輪取料系統關鍵技術及應用), “R&D and Application of Blockage Prevention and Dredging Devices for Coals in Hoppers” (料斗防堵煤疏通裝置的研發與應用) and other projects, and independently implemented projects such as “Research on Structural Health Monitoring Platform of Large-scale Port Machinery Based on Logistics Safety at Ports” (基於港口物流安全的大型港機結構健康監測平台研究). The results of these projects have reached leading levels both at home and abroad.

Table: Awards for QHD Port's projects

Project name	Award
Research and Application of Key Technology for Dust Suppression and Material Leakage Control of Belt Conveyors for Bulk Cargoes at Ports	First Prize in Preliminary Evaluation on Science and Technology Progress Award by China Ports & Harbours Association in 2021
Key Technology and Application of Large Portal Reclaimers with Bucket-wheel Reclaimer Systems for Bulk Cargoes at Ports	Second Prize in Preliminary Evaluation on Science and Technology Progress Award by China Ports & Harbours Association in 2021
R&D and Application of Blockage Prevention and Dredging Devices for Coals in Hoppers	Second Prize in Preliminary Evaluation on Science and Technology Progress Award by China Ports & Harbours Association in 2021
Research on Structural Health Monitoring Platform of Large-scale Port Machinery Based on Logistics Safety at Ports	Third Prize for Excellent Projects by 2021 China Society of Logistics in 2021

Case: QHD Port promotes intelligent sites of ports and remote centralized control

QHD Port continues to accelerate the in-depth integration of artificial intelligence, Beidou positioning, big data, cloud computing, blockchain and other technologies in production and management, and has comprehensively improved the construction of smart ports to promote digitization of sites and “unmanned” transformation. In 2021, Caofeidian Coal Port Company built digitized sites, realizing unmanned operation in turning, stacking and fetching; Cangzhou Mineral Port completed the automatic transformation on digitization of sites and stackers and reclaimers in the phase 1 ore project and continued construction; the Ninth Company of QHD Port actively promoted the remote centralized control of ship loaders and completed the relocation and transformation of the centralized control room for “turning, stacking, fetching and loading”, realizing remote centralized control for the whole process.



Data measurement with UAVs

IV. LEADING SMART PORTS WITH TECHNOLOGY EMPOWERMENT

4.2 Supported by Innovation Platforms

QHD Port always takes innovation as the first driving force for development, promotes big data, artificial intelligence, mobile Internet, cloud computing and Internet of Things and realizes the full coverage of online service halls in the Qinhuangdao-Tangshan-Cangzhou port area. It introduced the most advanced intelligence and green concepts in the construction of Cangzhou Ore Phase I (continued construction) from the beginning. Caofeidian Coal Company has carried out digitization of sites and the Ninth Company of QHD Port has realized remote centralized control on the production operation. Currently, the Company has built one national-level innovation studio, 10 provincial innovation studios and 11 municipal innovation studios. It has cultivated a large number of model workers and skilled craftsmen, saving RMB300 million through technological upgrades and innovation. In addition, the Company carried out the selection of “Innovative Persons” and “Innovative Teams” for the first time in 2021, injecting new driving forces into the high-quality development of the Company.

No.	Studio name	Level
1	Zhang Haibo Model Worker Innovation Studio	National
2	Process Innovation Studio	Provincial
3	Shi Zisheng Model Worker Innovation Studio	Provincial
4	Environmental Innovation Studio	Provincial
5	Electromechanical Innovation Studio	Provincial
6	Turning & Fetching Line Innovation Studio	Provincial
7	Locomotive Innovation Studio	Provincial
8	Process Refinement Innovation Studio	Provincial
9	Plumber Innovation Studio	Provincial
10	Li Fuyu Innovation Studio	Provincial
11	Wang Youbin Model Worker Innovation Studio	Provincial
12	Oil Transportation Process Innovation Studio	Municipal
13	Door-motor Innovation Studio	Municipal
14	PLC Innovation Studio	Municipal
15	Sand Table Decompression Innovation Studio	Municipal
16	Innovation Studio of Ocean Company	Municipal
17	Employee Innovation Studio of Communications Company	Municipal
18	IG Innovation Studio	Municipal
19	“Smart Port” Innovation Studio	Municipal
20	Safe Port Innovation Studio	Municipal
21	“Port Benefits” (港口惠) Innovation Studio	Municipal
22	Boying Innovation Studio	Municipal

IV. LEADING SMART PORTS WITH TECHNOLOGY EMPOWERMENT

Case: Carrying out the construction of innovation studios

Electromechanical Innovation Studio

In 2021, the Electromechanical Innovation Studio developed and released the technical innovation results of employees named in the Research and Application of Key Technologies in Dust Suppression and Material Leakage Control of Belt Conveyors for Bulk Materials in Ports, achieving all-round and whole-process collaborative governance on dust removal in operation, material throwing and carrying and leakage prevention. Currently, the results have been successfully applied in Qinhuangdao Port Coal Phase 4 Port, achieving material cleaning, dust suppression and material spilling and acceptance rates for belt conveyor carrying surfaces of over 95%, 90% and 98%, respectively, and creating benefits of more than RMB27 million from expense savings annually.



Electromechanical Innovation Studio

Safe Port Innovation Studio

In 2021, the Safe Port Innovation Studio organized research and development for technological innovation achievements in the "dual-control" supervision information platform on safety production and incorporated hierarchical risk management and control, investigation and rectification on hidden dangers as well as the operation of certain key projects, key positions and key related parties into management on the platform, effectively assisting in the investigation and governance of hidden dangers by various grass-roots units and continuously improving the quality and efficiency of investigation and governance of hidden dangers. The Safe Port Innovation Studio will continue to promote the organic combination of construction of safety informatization and dual-control mechanisms on safety production and smart, green and safe ports, strive to build standardized, normalized and convenient working procedures on safety management and guide employees to independently carry out safety management and transform from passive safety to active safety, so as to truly realize the advancement of safety supervision.



Safe Port Innovation Studio

IV. LEADING SMART PORTS WITH TECHNOLOGY EMPOWERMENT

4.3 Assisted by Patent Management

QHD Port carries out the protection of intellectual property rights and management of patents of the Company in accordance with the Patent Management Measures of Qinhuangdao Port Co., Ltd. 《秦皇島港股份有限公司專利管理辦法》, the Management Measures on Science and Technology Projects of Qinhuangdao Port Co., Ltd. 《秦皇島港股份有限公司科技項目管理辦法》, the Incentive Measures on Scientific Technology of Qinhuangdao Port Co., Ltd. 《秦皇島港股份有限公司科學技術獎勵辦法》 and other rules and regulations and encourages scientific and technological innovation by all employees. In 2021, the Company was authorized 5 patents, including one invention and four utility models.

Table: Patent authorizations obtained by QHD Port

Name of patent	Date of authorization	Type of patent
Traction system and method for rapid replacement of flexible belts for long-distance overhead belt conveyors (invention)	29 June 2021	Invention
Running gears for portal cranes with easy-to-remove buffers	10 September 2021	Utility model
Towline pulleys that can be quickly removed and replaced	31 August 2021	Utility model
Height limiter base with adjustable positions for installation	3 December 2021	Utility model
Dust removal pipeline with blockage prevention and dredging devices	21 December 2021	Utility model

4.4 Display of Outstanding Results

QHD Port has continuously accelerated the unmanned and intelligent transformation of loading and unloading equipment and carried out the intelligent transformation of Phase 5 coal ship loaders and reclaimers, creating a new business card for digital transformation of the port. Caofeidian Coal Company built the first intelligent site of QHD Port. The online service hall successfully obtained management system certification for the integration of digitalization and intellectualization, effectively improving the operation and management.



Centralized control center of the Ninth Company of QHD Port

Case: QHD Port further improves the application effect of the “Push-To-Talk” demonstration project

In 2021, QHD Port continued to optimize the functions of the “Push-to-Talk” intelligent port demonstration project for bulk cargoes and completed the introduction of subsystems such as dispatching, coal, general cargoes, customer services APP and big data analysis. All subsystems strictly follow the principle of “entering data at one end and using at multiple ends”, realizing rapid data sharing on production scheduling and operation at the port.



QHD Port’s “Push-to-Talk” intelligent port demonstration project for bulk cargoes

V. BUILDING GREEN PORTS WITH THE ENVIRONMENTAL AND LOW-CARBON CONCEPT

V. BUILDING GREEN PORTS WITH THE ENVIRONMENTAL AND LOW-CARBON CONCEPT

QHD Port has adhered to the development concept of “Building Green Hubs and Sharing Clean Seas and Blue Skies”, insisting on the path of sustainable and circular development and promoting institutionalized and standardized development of green operations. It resolutely prevents air, water and waste pollution and comprehensively improves energy use efficiency.

5.1 Adhering to Green Operation

Enhancing Top Design

QHD Port practices the concept of green development and has established an ecological and environmental protection committee and a leading group on energy conservation and emission reduction with the chairman as the first responsible person and improved its decision-making and coordination mechanism on ecological and environmental protection to jointly promote the construction of green and ecological ports.

In 2021, QHD Port recorded no responsible environmental pollution incidents in its three ports. The comprehensive index of air quality in Qinhuangdao Port area was 4.04, representing a decrease of 6.5% compared with 2020, and the number of days reaching the standard was 321, representing an increase of 9 days compared with 2020. The coastal water quality of Qinhuangdao Port area reached the Class I standard on water quality. The Sixth, Seventh and Ninth Companies in Qinhuangdao Port area passed the preliminary evaluation on four-star green ports with outstanding results and the ore operation area of Cangzhou Ore Company has applied for a three-star green port based on the procedures.

Table: Comparison of Environmental Quality in Qinhuangdao Port

Indicator	2020	2021	Increase or decrease
Comprehensive index	4.32	4.04	Decrease by 6.5%
Number of days reaching the standard	321 days	312 days	Increase by 9 days
Coastal water quality	Class-I water quality	Class-I water quality	–

Strengthening Source Control

QHD Port strengthens the whole-process control of dust and is committed to leading the industry in improving dust control. The Company has established an evaluation and response mechanism on dust from special cargoes and new cargoes, formulated emergency dust control measures, refined the hierarchical ledger based on the characteristics of cargoes and strictly implemented hierarchical prevention and control.

The Company adheres to high standards in the multi-dimensional coordinated management and control of collection and distribution vehicles and non-road mobile machinery in the port area, realizes comprehensive registration of environmental protection codes for non-road mobile machinery in use, monitors exhaust from non-road mobile machinery in accordance with regulations and fully promotes key units to sign public letters of commitment on the use of vehicles based on environmental standards. By the end of 2021, the Company's equipment and collection and distribution vehicles in use all met environmental protection requirements.

The Company strictly implements measures on water pollution prevention and control. In 2018, it completed the sealing of sewage outfalls to the sea in Qinhuangdao Port area. All sewage in the production area was collected, treated and reused. All domestic sewage entering the municipal pipe network was treated for recycling.

The Company strengthens the whole-process management of hazardous wastes, monitors the storage of hazardous wastes intelligently and strengthens the supervision on transfer of hazardous wastes to ensure that all hazardous wastes are safely transferred in compliance with regulations.

Strengthening Energy Conservation and Consumption Reduction

In 2021, QHD Port set “dual-control” targets on energy consumption as the orientation of energy conservation management, improved the energy conservation management network and improved energy use efficiency.

The Company initiated the refined management mode of “self-control and self-use” for thermal power, established and improved the statistical ledger on thermal consumption of all branches and subsidiaries and promoted the reform of thermal management, effectively reducing thermal energy consumption and bridging the gap in original energy management.

The Company established an energy consumption management information system with unified standards on energy consumption. It can automatically analyze energy consumption and upload to the network for information sharing among departments. The Company released the Measurement and Assessment Indicators for Energy and Water Conservation in 2021 《2021年度節能、節水、計量考核指標》 to ensure the consistency of targets and develop an effective management model with specific responsible persons designated.

V. BUILDING GREEN PORTS WITH THE ENVIRONMENTAL AND LOW-CARBON CONCEPT

In accordance with the Management Measures for Energy and Water Conservation of Qinhuangdao Port Co., Ltd. (《秦皇岛港股份有限公司节能节水管理办法》) and other rules and systems, the Company strengthens water conservation management, issues quarterly or annual evaluation indicators at the beginning of the year and establishes a mechanism on rewards and punishment to ensure the smooth achievement of various energy and water indicators.



Relevant energy and water conservation management systems issued by QHD Port

The Company organizes and carries out energy auditing work to evaluate the Company's energy management and its effectiveness and weaknesses in a scientific and objective manner, further specifying the direction of the Company's work on energy conservation and promoting the scientific and information-based development of energy management.

The Company encourages creation and innovation in environmental protection technologies and constantly explores the energy-saving potential of equipment and processes. New methods for energy conservation and emission reduction have been constantly proposed from ship loaders and reclaimers to bucket-wheel stacker reclaimers for dry bulk in ports, and from the collection of renewable energy to the utilization of new energy, to achieve economical and energy-saving operation.

Case: QHD Port promotes the energy-saving project through operation with automatic speed regulation

In 2021, an automatic speed regulation energy-saving project independently designed by the Ninth Company of QHD Port was put into operation on a pilot basis. This project is a bucket wheel reclaimer for coal loading and unloading at ports. It was upgraded from manual operation to semi-automatic mode. While improving the operation efficiency and realizing stable and controllable operation of the machine, it also reduced the machine overload risk. As of 31 December 2021, the automatic speed regulation operation technology had reduced electricity usage by nearly 30%; the operation time of reclaimers and ship loaders was reduced by 1,100 hours and 320 hours respectively; and the overall efficiency increased by 124 tonnes/hour, significantly reducing energy consumption. The technology is planned to be promoted throughout the port.



Reclaimer of the Ninth Company of QHD Port

V. BUILDING GREEN PORTS WITH THE ENVIRONMENTAL AND LOW-CARBON CONCEPT

Strengthening Monitoring Measures

QHD Port has continuously improved its detection system on environmental quality and pollutant emission, monitored pollutant emissions at the port in a timely manner and provided data support for the green development of the port. It has invested in the construction of two sets of automatic air quality monitoring stations in Qinhuangdao Port area, built five micro-grid monitoring stations in the port area and along its boundaries and 22 online dust monitoring points in the specialized coal terminal in eastern port area. All monitoring equipment is connected to the competent governmental departments and monitoring data is transmitted to the provincial and municipal platforms in real time, so as to realize the open and transparent monitoring of air quality at the port and effectively promote the construction of green and ecological ports.

The Company actively carried out self-monitoring on the environment, collected data on organized and unorganized dust emissions, VOCs and noise at the factory boundaries at the port in all aspects, implemented dust monitoring and notification mechanisms, carried out dust reduction monitoring on key roads by “measuring cleanness at gram”, and supervised dust cleaning and control in the port area based on the monitoring results for accurate and scientific management and control.

Table: Environmental Data of QHD Port in 2021¹

	Indicator	Unit	2021
Emissions	Total exhaust emissions	10,000 cubic meters	65,314.76
	Total soot emissions	Tonne	16,022.00
	Total amount of hazardous waste generated	Tonne	238,652.00
	Total amount of general industrial solid waste generated	Tonne	21,900.00
	GHG emissions (Scope 1)	tCO ₂ e	305,596.84
	GHG emissions (Scope 2)	tCO ₂ e	210,920.57
	Total GHG emissions	tCO ₂ e	516,517.40
	GHG emission intensity	tCO ₂ e/RMB10,000	0.78
Use of resources	Total power consumption	10,000 kWh	30,985.83
	Consumption of municipal water supply	Tonne	1,068,639.00
	Reclaimed water consumption	Tonne	2,534,681.00
	Gasoline consumption	Tonne	67.29
	Diesel consumption	Tonne	5,483.03
	Steam	Tonne	69,237.00
	Closed-circuit supply of hot water	GJ	153,520.96
	Comprehensive energy consumption	10,000 tonnes of standard coal	19.08
	Comprehensive energy consumption per RMB10,000 output value	Tonnes of standard coal/RMB10,000	0.29

¹ The GHG emissions under Scope 1 were calculated according to the Guidelines on Accounting Methods and Reporting of Greenhouse Gas Emissions of Other Industrial Enterprises through the conversion from the consumption of gasoline and diesel; the GHG emissions under Scope 2 were calculated according to the 2012 Baseline Emission Factors of China Regional Power Grid and the HKEx Reporting Guidelines for ESG Environmental Performance Indicators through the conversion from consumption of purchased power and heat.

V. BUILDING GREEN PORTS WITH THE ENVIRONMENTAL AND LOW-CARBON CONCEPT

5.2 Building Green Ports

QHD Port strictly implements the Planning on Green Ports of Qinhuangdao Port Co., Ltd. during the “14th Five-year Plan” Period 《秦皇島港股份有限公司“十四五”綠色港口規劃》 and is committed to building green collection and distribution systems, improving the energy structure, building a clean and low-carbon energy system and deepening the pollution treatment model to facilitate the stable improvement of the ecological environment at the port. The Company continuously innovates in pollution and carbon reduction and other fields and plans to reach the demonstration level of green development in the same field and achieve “peak carbon” in 2025. Based on its current production, QHD Port plans to achieve green collection and distribution for 100% of bulk cargoes and the use of shore power for 100% of vessels berthing in 2025. In terms of energy consumption, the comprehensive energy consumption per 10,000 tonnes of cargo throughput will be reduced by over 5% year on year and carbon dioxide emissions per 10,000 tonnes of cargo throughput will decrease by no less than 5% year on year in 2025.

Improving the Pollution Treatment System

QHD Port attaches great importance to the construction of green and ecological ports. Based on the Three-Year Work Plan on the Construction of Green Ports 《綠色港口建設三年工作方案》, the Company promotes the construction of environmental protection facilities at the ports, advances the adjustment of transportation and energy structures and deepens energy conservation, emission reduction, resource utilization and other work. In 2021, the Company carried out a series of exploration initiatives in green lighting, green driving, green heating and green port machinery to promote the all-round green upgrading of the enterprise throughout the entire process. With reference to the “Ten Measures on Prevention and Control of Air Pollution” in Hebei Province, the Company formulated measures to deepen the comprehensive air treatment in the port area and fully promoted air and environment treatment at the port. The Company continued to improve its air treatment equipment and facilities, built new vehicle washing stations in the stacking yards, promoted the transformation of single-machine fog cannons for dust suppression, realized automatic water supply for large-scale dust removal and improved the windproof nets in stacking yards. It conducted hardening and renovation of roads in the stacking yards and implemented wet cleaning of general bulk cargoes in the stacking yards.

Case: QHD Port upgrades spraying methods and improves spraying in the stacking yards

In 2021, QHD Port promoted dust suppression measures such as belt washing devices and driving station enclosures in Cangzhou and Caofeidian ports and implemented the transformation of belt conveyor trestle bridges at ore terminals to improve dust suppression in the operation of ports in an all-round way. The Company adhered to “four controls”, “spraying five times” and “two covers”, studied refined spray watering models, adjusted the day-night proportion of spraying and improved scientific spraying in the stacking yards.



Spraying operation in the stacking yards

V. BUILDING GREEN PORTS WITH THE ENVIRONMENTAL AND LOW-CARBON CONCEPT

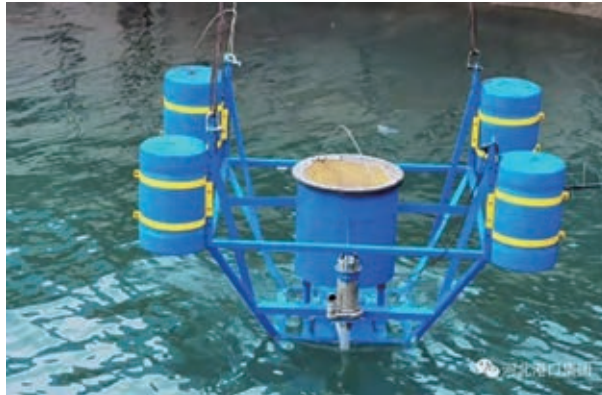
Facilitating Green Development with Science and Technology

QHD Port pursues innovation in environmental protection and has applied various “hard core” environmental facilities on the operation sites at the ports. Its self-developed winter spraying system for stacking yards provided dust removal in the winter in northern regions. The Company carried out the technical transformation in dust suppression with dry fog for reclaimers and constantly improved the matching degree of dust particles and fog droplets and dust prevention with high-pressure fog curtains and other technologies. It also promoted the transformation of the reclaimers’ bottom spraying and belt washing devices and built 14 sets of bottom spraying and 104 sets of belt washing devices, further improving the overall technology for dust suppression and the comprehensive prevention effect of the unloaders. It developed and promoted the technical transformation of belt transfer towers with high-pressure micro mist and realized wet dust removal for transfer towers in all seasons.

The Company carried out “research on marine garbage collection devices”, independently designed and manufactured two kinds of marine garbage collection devices, namely ocean garbage cans and unmanned ships, providing new technological means for environmental protection in ports and sea areas. It conducted research on rust removal and spraying processes to provide reference for green and environmental painting work at the site of large-scale equipment in ports. The Company also conducted research on the unpowered dust suppression technology of ship loaders to provide technical support for the optimization of loading and unloading processes, and independently developed technologies on prevention of spilling and leakage from crane grab buckets, improving both energy-saving production and production safety.

Case: Research on marine garbage collection devices of QHD Port

In 2021, the “Ocean Garbage Can” project independently developed by QHD Port was officially put into use. The project includes ten sets of automatic cleaning and collection devices for self-cleaning and self-collection of ocean garbage with pump-suction floating buckets. The devices can autonomously collect ocean garbage 24 hours a day, replacing manual daily cleaning, and can flexibly adjust positions and achieve all-weather, high-efficient and autonomous cleaning in ocean areas.



Ocean garbage cans

V. BUILDING GREEN PORTS WITH THE ENVIRONMENTAL AND LOW-CARBON CONCEPT

Case: QHD Port develops technologies on prevention of spilling and leakage from grab buckets of portal cranes

In 2021, QHD Port increased investment in research and development and conducted research on technologies for prevention of spilling and leakage from grab buckets of portal cranes. During the loading and unloading operations of the bulk grain business, QHD Port General Cargo Port Branch (秦港股份雜貨公司) added a non-powered anti-leakage device featuring easy installation and disassembly to the grab buckets to prevent material spilling and leakage and reduce loss of materials. While ensuring a clean and tidy environment at the transportation site, it also achieved the target of environmental protection and energy-saving production.



Bulk cargo operation with grab buckets at the general cargo terminal of Qinhuangdao Port

Adjusting the Transportation Structure of Ports

The Company resolutely implements national policies on “railway transit (公轉鐵)” and vigorously develops a green collection and distribution system to continuously increase the total cargo distribution from the port with trains and belts and optimize the collection and distribution structure. As of the end of 2021, the Company had achieved railway collection and distribution of 13.617 million tonnes. Railway collection and distribution in Huanghua Port area reached 24.186 million tonnes and belt transportation reached 4.922 million tonnes. The proportion of train and belt collection and distribution increased by nearly 10 percentage points and the railway collection and distribution capacity has been further improved.

Case: QHD Port purchases new energy equipment

In 2021, QHD Port initiated the renewal of new energy mobile machinery, actively promoted the application of new energy machinery and vehicles, studied and formulated new energy transformation plans for tugboats and locomotives. According to the requirements on the purchase of new energy port vehicles and machinery formulated by the Company and on the basis of fully considering the current situation of mobile machinery and equipment at Qinhuangdao Port, QHD Port purchased 6 electric and new energy non-road mobile machinery and equipment items and one new energy vehicle based on comprehensive market research and completed the engine upgrading and transformation for 25 large mobile machinery and equipment items, specifying the development path for the port to advance towards the new energy era.



60-tonne electric tractor of QHD Port

V. BUILDING GREEN PORTS WITH THE ENVIRONMENTAL AND LOW-CARBON CONCEPT

Case: QHD Port increases use frequency of power in the harbor

QHD Port guided vessels berthing at the port to actively use power in the harbor, improved the supporting preferential policies for use of power in the harbor, prioritized the arrival, stevedoring, berthing and departure of vessels with use of power in the harbor and implemented electricity fee reduction and exemption and other measures during the peak travel season to encourage vessels to use power in the harbor. In 2021, use of power in the harbor at Qinhuangdao port area improved significantly, with a total of 17 vessels using power, a total of 15,587 minutes of power used and a total power supply of 73,245 kWh.



Shore power facilities of QHD Port supplying power for vessels berthing at the port

Intelligentization of Environmental Protection

QHD Port independently built an intelligent environmental protection management and control platform and achieved refined management. Based on the monitoring data on dust concentration, information from weather stations, characteristics of different types of coal, moisture content and other information and through the statistics, records and analysis of environmental protection equipment, different environmental protection equipment can be intelligently selected and used to make dust control and suppression more scientific and accurate. The Company has developed and promoted a program for "transformation of continuous belt washing devices". Data showed that the spilling and leakage of a single belt conveyor decreased by 97% year on year, greatly improving the overall belt washing effect. It also further promoted the green transformation of the port and achieved high-quality development.

The Company has established an online data monitoring platform for mobile sources at Qinhuangdao Port. It is the first to realize online monitoring on exhaust emissions from non-road mobile machinery in China to monitor equipment exhaust emissions in real time. After comprehensive treatment, the environmental protection failure rate of exhaust gases from equipment in use at Qinhuangdao Port has dropped by 96% and the optical absorption coefficient of exhaust gases has dropped by an average of 92.56% over the corresponding period, greatly reducing the emissions of exhaust particles. Construction and operation of the exhaust gas monitoring platform regulated the operation behavior of drivers, eliminated abnormal exhaust emissions from equipment and ensured that the equipment involved in production and operation in the port area meets the requirements on environmental protection.

Case: Construction plan for the monitoring system on the green and ecological environment of Qinhuangdao Port

On 26 July 2021, the construction plan for the monitoring system on the green and ecological port environment of Qinhuangdao Port passed the review and acceptance. The plan includes monitoring systems for air quality and the soil environment, an intelligent monitoring system for noise and a shore-based sniffing system for exhaust gas from vessels, carrying out a comprehensive and systematic design and planning for the green development of Qinhuangdao Port. It is in line with the actual development needs of QHD Port and will facilitate the transformation and upgrading of QHD Port towards high-quality development.

V. BUILDING GREEN PORTS WITH THE ENVIRONMENTAL AND LOW-CARBON CONCEPT

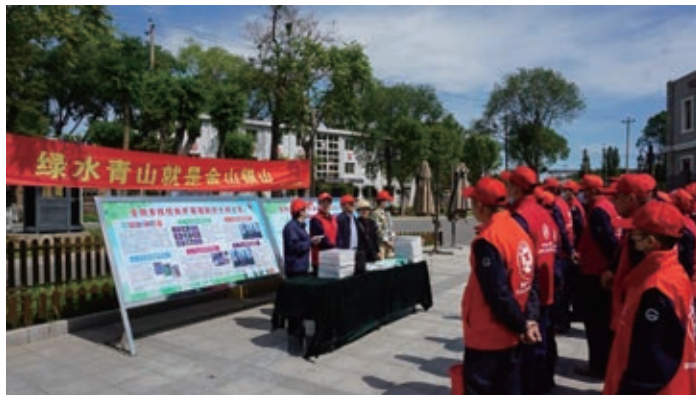
Construction of Green Culture

QHD Port is committed to promoting the construction of a green environment under the construction of an ecological environment with the participation of all employees. It has established a long-term training mechanism, vigorously carried out publicity and education activities on environmental protection and energy conservation, and further enhanced employees' awareness on resources and energy saving. In 2021, the Company arranged for over 720 employees to participate in training on knowledge and skills on ecological environment and energy conservation and more than 3,500 employees participated in the knowledge competition on environmental protection. The Company regularly publishes the "Green Development Report of Qinhuangdao Port" to show the relevant practices of QHD Port on green development to the public.

The Company proactively established ecological and environmental education bases at provincial and municipal levels and has been awarded the ecological and environmental education base in Qinhuangdao City. Combined with the Environment Day on "5 June", the Company organized volunteer activities on environmental protection in the new era with civilized practice, publicized knowledge on ecological environment, cleaning up the environment of the port area and improved the awareness on ecological environment, creating a corporate culture and atmosphere on green environmental protection, energy saving and low-carbon development.

Case: QHD Port carries out publicity activities on environmental protection

On 30 June 2021, QHD Port and the Publicity and Education Center of Qinhuangdao Ecological Environment Bureau promoted World Environment Day on "5 June" and carried out environmental protection activities. More than 40 volunteers from QHD Port distributed publicity materials on environmental protection to the public and collaboratively organized a knowledge competition on environmental protection. This reflected the general environmental protection awareness of QHD Port employees, which indirectly improved the relevant knowledge of employees and created an outstanding green cultural atmosphere.



Site of the World Environment Day activities on "5 June"

V. BUILDING GREEN PORTS WITH THE ENVIRONMENTAL AND LOW-CARBON CONCEPT

5.3 Responding to Climate Change

Climate change is a serious challenge for mankind in the 21st century. With the frequent occurrence of extreme weather and national goals on “peak carbon and carbon neutrality”, QHD Port attaches great importance to improving the Company’s resistance to climate change risk, actively identifies climate change risks and countermeasures, and formulates extreme weather emergency plans to ensure the smooth implementation of the Company’s work on climate change.

The Company has improved its contingency plans for environmental emergencies, managed the storage of emergency materials for joint prevention bodies and formulated and released the *Contingency Plans on Preventing Vessels and Their Operations from Polluting the Marine Environment* (《防止船舶及其有關作業活動污染海洋環境應急預案》). It improved its heavy pollution weather emergency management mechanism, carried out inspections on the implementation of emergency measures and pollution prevention in the port area, initiated orange warnings 6 times as required and implemented intensified measures 11 times, involving 78 days. It recorded no violations during the emergency responses to heavy pollution.

The Company actively responds to sudden severe weather and has improved its working mechanisms on organization and command, monitoring and warning and information reporting. It has received severe weather notices in a timely manner, implemented prevention measures and responses and issued 30 warnings on severe weather throughout the year. The Company has formulated the *Special Emergency Plan on the Prevention of Typhoons* (《防颱風專項應急預案》) and the *Special Emergency Plan on the Prevention of Floods* (《防汛專項應急預案》) to respond to major hidden dangers of climate change. Meanwhile, it also focuses on implementation of measures against wind, rain and cold, takes effective precautions for equipment and facilities, building facilities and ancillary facilities, vessels and large machinery and other major issues to ensure road traffic safety and fire safety under severe weather conditions. It has closely strengthened contact with the fire prevention and rescue department in Qinhuangdao City, participated in joint training and exercises on flood control and rescue organized by the Municipal Emergency Bureau and established systems for joint training and exercises to continuously improve its emergency response and handling capabilities. The Company has organized “emergency production safety accidents of special equipment” and “comprehensive rescue exercises on production safety accidents and environmental emergencies” training.

The Company attaches great importance to relevant risks and opportunities brought about by climate change and actively responds to the hidden safety dangers of equipment under extreme weather conditions. For typhoons, gust, storms and other extreme weather conditions, the Company strictly implements the requirements of the *Guidelines for the Safety of Large-scale Machinery in Ports in the Prevention of Gusts and Typhoons* (《港口大型機械防陣風防颱風安全工作指南》), carries out inspection, rectification and electric transformation of windproof anchoring devices. In response to winter weather, the Company has formulated the *Requirements on the Management of Loading and Unloading Equipment in Winter* (《冬季裝卸設備管理規定的要求》) and established a working group to guide all units in the management and use of equipment during cold weather, thus providing an effective response mechanism on the risks brought by climate change.

VI. KEEPING ALERT IN BUILDING SAFE PORTS

VI. KEEPING ALERT IN BUILDING SAFE PORTS

QHD Port has firmly established the development concept of “putting life first”, further strengthening the sense of responsibility, fulfilled responsibilities on production safety, continuously strengthened safety management, improved safety systems and implemented safety measures to avoid safety risks. While protecting the occupational health of employees, it strives to develop a safety culture for the enterprise to make employees feel at ease.

6.1 Strengthening Management Systems

In strict compliance with the Work Safety Law of the People's Republic of China 《中華人民共和國安全生產法》, the Law of the People's Republic of China on Ports 《中華人民共和國港口法》, the Road Traffic Safety Law of the People's Republic of China 《中華人民共和國道路交通安全法》, the Fire Protection Law of the People's Republic of China 《中華人民共和國消防法》 and other laws and regulations, QHD Port formulated the Production Safety Accountability System of Qinhuangdao Port Co., Ltd. 《秦皇島港股份有限公司安全生產責任制》, the Management Measures for Production Safety Risk Control and Hidden Hazard Treatment of Qinhuangdao Port Co., Ltd. 《秦皇島港股份有限公司安全生產風險管控與隱患治理管理辦法》 and other relevant systems, and continuously improved the safety system of the Company. It developed a dual prevention working mechanism on the hierarchical management of production safety risks and hidden hazards treatment and established a working model with the identification, control and dual prevention of risks as the focus supported by safety inspections and investigation of hidden hazards to promote the scientific development of safety risk management.

Case: QHD Port independently develops an intelligent safety supervision system

In 2021, the Company independently developed an intelligent safety supervision system. Leveraging artificial intelligence and information technology, combined with multiple functions such as storage, management, control, analysis and early warning, the system can transmit video monitoring of production sites in real time, accurately identify on-site violations of regulations and abnormal conditions such as smoke and flames and raise the alarm through audio and loudspeakers. The remote command center can also give instructions through pop-up warnings. Safety management personnel can monitor the on-site operation situation while “staying at home”, further improving the on-site safety supervision and emergency response and strengthening the timeliness of safety management.



Page of the dual-control data visualization platform of QHD Port

VI. KEEPING ALERT IN BUILDING SAFE PORTS

6.2 Adhering to Safety Operation

In accordance with the Supervision and Management Measures for Fire Prevention 《消防安全監督管理辦法》 and the Supervision and Management Measures for Road Traffic Safety at the Port 《港口道路交通安全監督管理辦法》 and other relevant systems, QHD Port strives to achieve the target of “zero” accidents and insists on safety operation. The Company carries out standardized production and construction and identifies key areas in the production and operation process to ensure risk analysis on positions with high risks. Specific personnel are arranged to supervise safety operation, strictly implement procedures for safety operation and strengthen coordinated management to ensure standardized safety production. For employees in high-risk positions, the Company strictly screens occupational contraindications and strictly prohibits personnel without certificates from participating in operation. As of 31 December 2021, QHD Port had recorded no accidents in safety production above minor injuries, no deaths in safety production and 0 days lost due to safety production accidents.

The Company strictly implements safety education and trainings, regularly conducts safety exercises with different themes, inspects the safety management of all departments and investigates potential safety hazards in the operation of the Company to improve the safety awareness of all employees.

Table: Data on safety training of QHD Port in 2021

Indicator	Unit	2021
Training on safety qualification certificate	person-time	2,382
Special education and training on safety	person-time	15,644
Publicity and education on safety	person-time	16,227
Total number of participants in training on safety	person-time	34,253

Case: QHD Port launches a series of activities on safety teams

In 2021, QHD Port launched the labor competition of “Safety Team Tour”, aiming to strengthen the safety construction of teams, improve the safety management of teams, enhance the safety awareness and safety quality of employees, intensify the motivation and capability of employees to manage and control safety risks and investigate potential safety hazards. It carried out targeted technical innovation and skill training, fully stimulated the enthusiasm and initiative of employees and teams and realized the fundamental transformation from “making me safe” to “I want to be safe”, “I will be safe” and “I can be safe”, further consolidating the fundamental safety work of the enterprise.

A total of 367 grassroots production teams and 4,675 employees of the Company participated in the competition. They investigated a total of 2,374 potential safety hazards, implemented 38 minor rectifications on safety and technology, independently compiled 51 training handbooks on safety skills, carried out 40 innovative cultural activities on safety, implemented 39 innovative measures on team safety management and put forward 328 suggestions for improvement of the fundamental team management work. Based on the results of the activities, the Company rewarded 96 excellent teams and 1,818 employees and fully improved the environment for 6 typical demonstration teams.



On-site promotion of the
Safety Team Tour competition



Technical staff conduct tour
safety inspections on equipment

VI. KEEPING ALERT IN BUILDING SAFE PORTS

Case: QHD Port set up a smart grid to ensure power safety

In December 2021, QHD Port successfully completed the laying of temperature sensing optical fibers with “zero power failure”. The cables of the distributed optical fiber temperature sensing system of the equipment can continuously read the temperature data of the measurement point online and effectively prevent various cable accidents such as long-term overload and structural defects. Through the linkage between the temperature sensing host and the monitoring computer, the Company has developed a smart grid to discover potential safety hazards in a timely manner and improve the safety and reliability of power supply and power management.



Smart grid

Case: The rotary feed collision-avoidance system offers a “safety umbrella” for ship loaders

In December 2021, QHD Port officially put the “rotary feed collision-avoidance system for ship loaders” into operation. The system has different levels of autonomous alarming models and can inspect in-cabin operations in real time to effectively deal with collision risks in different shipping processes, thereby improving the flexibility and practicability of risk prevention. It is the first application in the industry.



Marine safety umbrella

VI. KEEPING ALERT IN BUILDING SAFE PORTS

Fire Prevention and Road Traffic Safety

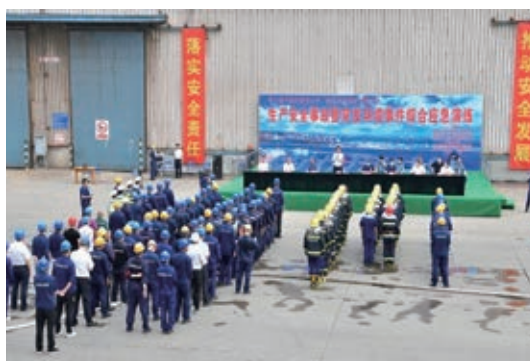
In accordance with the Fire Protection Law of the People's Republic of China 《中華人民共和國消防法》 and the Regulations on Fire Prevention for Governmental Departments, Entities, Enterprises, and Institutions 《機關、團體、企業、事業單位消防安全管理規定》 issued by the Ministry of Public Security and other relevant laws and regulations, QHD Port has formulated the Supervision and Management Measures for Fire Prevention of Qinhuangdao Port Co., Ltd. 《秦皇島港股份有限公司消防安全監督管理辦法》, the Administrative Measures for Fire Prevention Archive of Qinhuangdao Port Co., Ltd. 《秦皇島港股份有限公司消防檔案管理辦法》 and other relevant systems, improved fire prevention management, prevented fire risks and improved risk response capabilities.

The Company has established a long-term mechanism on weekly fire prevention inspections, which is implemented from the Company as a whole to the grassroots teams as a whole to effectively eliminate potential fire safety hazards. It organized evaluation on fire prevention and rectified potential safety hazards in a timely manner. The Company strictly examines and approves the use of fire and strengthens the construction of emergency response capabilities on fire prevention. It built 50 new miniature fire stations in key areas such as substation and high-rise buildings and held "special emergency exercises for traffic and fire prevention", effectively improving employees' capabilities to respond to dangers.

The Company formulated the Supervision and Management Measures for Road Traffic Safety at the Port of Qinhuangdao Port Co., Ltd. 《秦皇島港股份有限公司港口道路交通安全監督管理辦法》 in accordance with the Road Traffic Safety Law of the People's Republic of China 《中華人民共和國道路交通安全法》, the Regulation on the Implementation of the Road Traffic Safety Law of the People's Republic of China 《中華人民共和國道路交通安全法實施條例》 and other relevant laws and regulations to strictly standardize the setting of traffic signs and road traffic facilities in the main business areas of the Company. For driving safety, the Company strictly reviews the qualifications of licensed drivers to ensure that they were obtained in accordance with the laws and conducts reviews regularly.

Case: QHD Port carries out comprehensive emergency rescue exercises on fire prevention and traffic accidents

On 23 July 2021, QHD Port organized the "Comprehensive Emergency Exercise for Production Safety Accidents and Environmental Emergencies in 2021". Qinhuangdao Emergency Management Bureau, the Municipal Bureau of Marine Development and Fisheries and the Municipal Fire and Rescue Detachment and other departments observed the exercises.



Site of fire prevention exercises

VI. KEEPING ALERT IN BUILDING SAFE PORTS

6.3 Protecting Occupational Health

In strict compliance with the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases 《中華人民共和國職業病防治法》, the Administrative Regulations on Employers' Protective Equipment of Labor 《用人單位勞動防護用品管理規範》, the Provisions on the Supervision and Administration of Occupational Health at Work Sites 《工作場所職業衛生監督管理規定》 and other relevant laws and regulations, QHD Port formulated the Administrative Measures for Occupational Health Protection of Qinhuangdao Port Co., Ltd. 《秦皇島港股份有限公司職業健康監督管理辦法》, the Administrative Measures for Protective Equipment of Labor of Qinhuangdao Port Co., Ltd. 《秦皇島港股份有限公司勞動防護用品管理辦法》, the Administrative Measures for Workplace's Occupational Health Supervision of Labor of Qinhuangdao Port Co., Ltd. 《秦皇島港股份有限公司工作場所職業衛生監督管理辦法》 and other internal rules and systems to further perfect occupational health management, enhance the Company's health management mechanism, improve standardized health management, prevent occupational disease risk for employees and effectively protect the health rights and interests of all employees.

The Company implements a regular health examination system for dangerous positions, adopts targeted control measures on hazards and sets up individual archives for monitoring the occupational health of employees. Meanwhile, the Company actively optimizes the working environment of key positions, strengthens the monitoring on harmful factors to employees and promotes standardized operation of the workplace to fundamentally reduce occupational hazards. In 2021, the Company had no recorded employee occupational disease cases.

Case: QHD Port actively prevents pandemic risks

In 2021, facing the severe COVID-19 pandemic, QHD Port frequently updated pandemic-related information through its WeChat public account platform and promptly notified employees of the latest adjustments to pandemic prevention and control areas. It kept "zero reports" in monitoring the health of employees at ports on a daily basis, completed nucleic acid testing for on-the-job and retired employees and strengthened management at gates and places with crowds at all levels. The Company implemented closed-loop management for personnel involved in high-risk operations as required and strengthened the management of pandemic prevention and control in centralized offices and public places to prevent the risk of cluster infections. QHD Port actively publicized basic knowledge on health management, advocated employees to voluntarily complete full-process vaccination and reminded employees to pay attention to personal protection and personal health management.



Pandemic prevention personnel sterilize vehicles at the collection and distribution port



Qinhuangdao Port Hospital conducts nucleic acid testing for people at the port

VII. CARING FOR EMPLOYEES AND ACHIEVING MUTUAL GROWTH

VII. CARING FOR EMPLOYEES AND ACHIEVING MUTUAL GROWTH

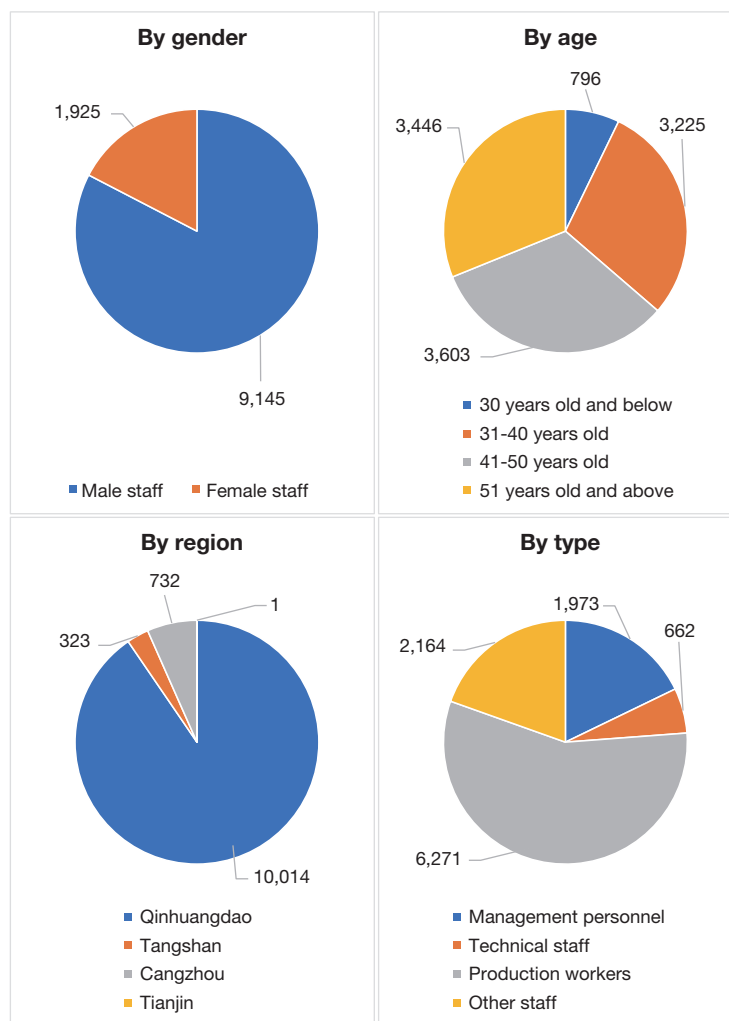
QHD Port adheres to a people-oriented operation philosophy and considers employees as an essential part in the development of the enterprise. The Company attaches great importance to employees' rights and interests. With the support of complete remuneration and welfare systems and diversified training and promotion mechanisms, the Company practically safeguards the physical and mental health of employees and motivates them to continuously enhance their vocational skills and professional quality to achieve mutual growth of the enterprise and employees.

7.1 Safeguarding Employees' Rights and Interests

In strict compliance with the *Labor Law of the People's Republic of China* (《中華人民共和國勞動法》), the *Labor Contract Law of the People's Republic of China* (《中華人民共和國勞動合同法》) and other relevant national laws and regulations, and under the guidance the *Recruitment Guidelines* (《招聘簡章》) and other internal systems, QHD Port follows the principles of "openness and equality, selecting the best through competition and matching positions" and recruits talents through campus and social recruitments. In the process of recruitment, appointment and employment, the Company resolutely safeguards the legitimate rights and interests of all employees and strictly prohibits any discrimination against gender, region, age, ethnic group, religion and cultural background and vicious competition to create equal working opportunities for all employees and guarantee diversified employment.

Following the principles of "legality and fairness, equality and willingness, negotiation, honesty and trustworthiness", the Company enters into labor contracts with employees to establish the employment relationship. During the process, the Company strictly screens the identification information submitted by employees and resolutely eradicates the employment of child labor and forced labor. It strictly handles any activities in violation of relevant regulations.

As of the end of the Reporting Period, the Company had a total of 11,070 employees, all of which were in Mainland China with details as follows:



Number of employees by type of QHD Port in 2021

VII. CARING FOR EMPLOYEES AND ACHIEVING MUTUAL GROWTH

In order to further safeguard the remuneration of employees and motivate them, the Company optimized its remuneration and incentive policies in 2021 and released the *Notice on Deepening the Performance Management of Employees*, the *Administrative Measures for the Remuneration of Mid-level Management*, the *Notice on Adjusting the Remuneration Plan of Pilot Units for Full Market-based Operation*, the *Incentive Plan on Incremental Business and Revenue for 2021* and other internal systems to innovate with the distribution mechanism of the Company and derivate new development drivers.

Notice on Deepening the Performance Management of Employees	<ul style="list-style-type: none">Promoting performance management of employees by breaking down indicators and delegating clear responsibilities to comprehensively implement classification and differentiated appraisal.
Administrative Measures for the Remuneration of Mid-level Management	<ul style="list-style-type: none">Redeeming remuneration based on performance appraisal results and achieving “no top and bottom limits” on performance bonus.
Notice on Adjusting the Remuneration Plan of Pilot Units for Full Market-based Operation	<ul style="list-style-type: none">Exploring the implementation of the “surplus profit sharing” mechanism to further standardize remuneration management and improve the linkage mechanism on remuneration and profits.
Incentive Plan on Incremental Business and Revenue for 2021	<ul style="list-style-type: none">Achieving the direct linkage between the total remuneration of piece-based employees of the Coal Company and its cargoes throughput capacity to further stimulate the production enthusiasm of grass-roots employees and motivate the Coal Company to tap into its potential and improve efficiency.

Measures of the Company on safeguarding the remuneration of employees in 2021

VII. CARING FOR EMPLOYEES AND ACHIEVING MUTUAL GROWTH

7.2 Supporting Career Development

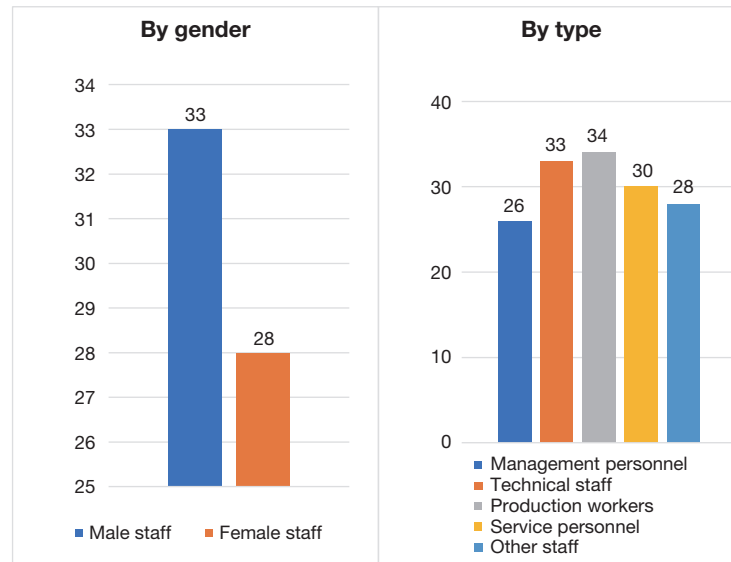
QHD Port attaches great importance to the career development of employees and considers them as the most valuable assets of the Company. The Company has established the Employee Job Evaluation Committee, further improved safeguarding measures on education and training and carried out training activities to build competitive talent teams and reserve energy for the future development of the Company.

Enhancing the leadership of organizations	<ul style="list-style-type: none">Major Party and administrative leaders of all units shall study and solve the difficulties and problems in educating and training employees; all departments and units shall coordinate and cooperate with each other in implementing relevant tasks based on the division of work
Enhancing base construction	<ul style="list-style-type: none">Party schools of members of the GroupTraining bases for national high-skilled talents
Strengthening faculty teams	<ul style="list-style-type: none">Stepping up efforts in the cultivation of professional teachersEstablishing the management system for internal trainersRegularly holding training and lecturing contests
Building training systems	<ul style="list-style-type: none">Building a three-level education and training networkConducting dynamic management on training systems
Implementing the guarantee of fees	<ul style="list-style-type: none">Reasonably using fees on employee educationStrictly implementing the approval system on fees for employee education
Emphasizing monitoring and inspection	<ul style="list-style-type: none">Carrying out evaluation on various training classes

Safeguarding measures on education and training of the Company

VII. CARING FOR EMPLOYEES AND ACHIEVING MUTUAL GROWTH

The Company actively organized and carried out work under the “14th Five-year” Plan. With the independent evaluation of technical talents as the driver, the Company conducted training prior to the certification of the levels of technical staff and implemented the “training + evaluation” dual-dimensional skills improvement program. Meanwhile, the Company also arranged final examinations on training to further improve the structure of the high-skilled talent team. Currently, the Company has completed the arrangements under the training plan for 2021. 19,415 attendances were recorded in training with an average of 32 training hours for each employee, details of which are as follows:



Average training hours of all types of employees in 2021

VII. CARING FOR EMPLOYEES AND ACHIEVING MUTUAL GROWTH

While firmly focusing on the production and operation of the enterprise, the Company actively implemented various types of training programs on employees, including those on projects, strategic management, finance, production business, safety supervision and Party affairs, and fully promoted the improvement of the capability and quality of the staff team to provide human resources guarantees for serving the transformation and upgrading as well as the high-quality development of the enterprise.



Training of security management staff



On-site teaching at Li Dazhao Memorial Hall



On-site teaching at Panjiayu



Training of reserve cadres



Training of senior drivers of electric handling machinery



Training of leaders of gold classes



Training of activists in party application



Serving grass-roots levels with Party classes



Systematic training on the Labor Union themed "always following the leadership of the Party"



Training of cadres on political work



Training of cadres on organization work



Study and education activities of the Youth Civilization

Training activities carried out by the Company in 2021

The Company also actively carried out activities such as labor skills competitions and offered the corresponding incentives based on the actual performance of employees in the competitions to further motivate the working enthusiasm of employees, unleash their innovation potential and lay a solid foundation for enhancing the comprehensive competitiveness of the enterprise.

Case: Staff skills competition

On 20 October 2021, the staff skills competition was officially initiated, which included 6 types of work. 5 employees were awarded the title of Top Technical Staff and 25 employees were awarded the title of Technical Experts based on the final results of the competition.



Forklift driver skills competition

VII. CARING FOR EMPLOYEES AND ACHIEVING MUTUAL GROWTH

7.3 Caring for Employees

QHD Port cares for the physical and mental health of employees and is always devoted to creating a working environment with warmth, harmony, equality and care. The Company ensures the protection of employees' welfare and organizes diversified leisure activities to promote work-life balance and improve their sense of happiness and belonging.

Case: Fighting against high temperature and bringing coolness and love to grass-roots employees

From 2 to 6 August 2021, leaders of the Company visited grass-roots employees and brought summer coolness and sincere care to employees at working positions.



Leaders of the Company brought coolness to grass-roots employees

The Company also resolutely safeguards the basic rights and interests of female employees and actively carries out relevant themed activities to fully display the humanity of the enterprise and build a warm and comfortable family at QHD Port.

Case: Training on mental health for female employees

In 2021, the Company held training on mental health with the theme of “Nip in the Bud - Self-counseling on Sentiment and Mental Stress for Female Employees”.



Training on mental health for female employees

VIII. FOLLOWING THE GUIDANCE OF BANNERS WITH CONCERTED EFFORTS

VIII. FOLLOWING THE GUIDANCE OF BANNERS WITH CONCERTED EFFORTS

Standing on the historical juncture of the “Two Centenary Goals”, QHD Port celebrated the 100th anniversary of the founding of the CPC with full pride and enthusiasm. As a state-owned enterprise, the Company remained true to its original aspirations and kept its missions firmly in mind. While achieving development, it has also given back to society and practically pursued common progress and development with the public.

8.1 Consolidating Foundations and Shaping Images to Play the Role as an SOE

To boost the mental strength of all Party members and cadres in carrying forward the revolutionary tradition of the century-old port and advancing transformation and development in its new journey, QHD Port initiated a series of activities with the theme of “Embarking on a New Journey and Following the Leadership of the Party Forever” on the occasion of celebrating the 100th anniversary of the founding of the CPC. It organized various activities such as the awarding of souvenir badges for “50 years a Party member” at the commendation meeting on “1 July”, the “Shining Candles · Ode for 100 Years of History” themed day on Party building, a poetry contest themed “Ode for 100 Years of History with Poetry” and a short-video contest with the theme of “Pledging to the Party and Building a Motivated Port”.

As the most important subsidiary of Hebei Port Group Co., Ltd. (河北港口集团有限公司), the Company has been a pioneer in Party building within the Group. Leveraging its distinctive working programs represented by the “project-based operation of Party building” and other brands on Party building, the Company was highly recognized by the Party Committee of the State-owned Assets Supervision and Administration Commission of Hebei Province. The Company also shared its experiences and practices in Party building within the Group and played a key role in obtaining the “National Advanced Grassroots Party Organization” by the Party Committee of the Group.

Case: Celebration of the 100th anniversary of the founding of the CPC and commendation meeting on “1 July”

On 24 June 2021, the Company held a celebration of the 100th anniversary of the founding of the CPC and a commendation meeting on “1 July”. Representatives of senior Party members receiving souvenir badges for “50 years a Party member” were invited to attend the meeting.



Chairman Cao Ziyu takes a group photo with senior Party members

VIII. FOLLOWING THE GUIDANCE OF BANNERS WITH CONCERTED EFFORTS

Case: Activities themed “Embarking on a New Journey and Following the Leadership of the Party Forever”

On 11 June 2021, the Company held activities themed “Embarking on a New Journey and Following the Leadership of the Party Forever” at the Qinhuangdao International Tourism Port with a history of over 100 years to celebrate the 100th anniversary of the founding of the CPC. 100 sailboats with red sails closely followed the pilot vessel with the Party flag and braved winds and waves on the sea, depicting a vivid picture of “a hundred sailboats riding the waves in a new voyage following the guidance of the Party flag”. The activity was included in the People’s Daily and the headline of the Workers’ Daily on 1 July with a total of over 3 million views on mainstream media.



Sailing activity celebrating the 100th anniversary of the founding of the CPC

Case: Celebration of the 100th anniversary of the founding of the CPC and exhibition of results in 100 years of transformation of the port

In 2021, the celebration of the 100th anniversary of the founding of the CPC and exhibition of results in 100 years of transformation of the port was held in Storeroom 4 of the South Warehouse at the Qinhuangdao International Tourism Port. Through historical pictures, tangible archives, innovative modeling, themed videos and other various forms, the Company reviewed the history of exploration, innovation, reform and development of the port in 100 years under the leadership of the CPC and vividly told the struggles and inheritance of spirit over the history of the Party and the port.



Exhibition hall for results and certain exhibits

VIII. FOLLOWING THE GUIDANCE OF BANNERS WITH CONCERTED EFFORTS

8.2 Vigorously Advancing Rural Revitalization and Assistance

QHD Port has been devoted to poverty alleviation and assistance for years. It actively integrated internal and external advantage resources to consolidate the results in poverty alleviation. The Company continuously consolidated the results of assistance work on “not worrying about two things and ensuring three things”, vigorously fostered distinctive industries, coordinated social resources in improving the industrial chains on consumption assistance and led rural governance under the leadership of Party building, laying a solid foundation for aligning with rural revitalization efforts. The Company has invested a total of RMB3,610,282 in industrial projects, consumption assistance, poverty prevention and assistance, pandemic prevention and control, and other charities, achieving outstanding results in assistance.

Case: Shimenzi Village in Qinglong County - industrial assistance

In 2021, the Company actively coordinated social resources and established a cooperative agricultural assistance mechanism. Through the targeted sale of “local” products of Shuanghesheng Ecology Agricultural Products Co., Ltd. (雙合盛生態農產品有限公司) in Qinglong, it established the “Demonstration Base for Poverty Alleviation in Shimenzi Village for Materials Procurement by Shuanghesheng”. The Company entered into a Pumpkin Planting and Purchasing Cooperation Agreement and achieved production based on orders and withdrew from the “Consumption and Poverty Alleviation Fund” at certain proportions to provide relief and carry out industrial assistance, effectively extending the chains of industrial assistance.

To increase the additional value of agricultural products and retain value-added income for villages and farmers, the Company set up “poverty alleviation workshops for agricultural products processing in Shimenzi Village” with the “Consumption and Poverty Alleviation Fund”. Through cleaning, peeling and slicing pumpkins and sweet potatoes, farmers increased their income by more than RMB2 per kilogram. Pumpkin seeds are also processed into travelling and leisure food, increasing public employment in their own backyard. In 2021, over 40 mu of pumpkins were planted in the village and 22,500 kilograms of pumpkins and 60,000 kilograms of sweet potatoes were purchased. The fund provided 15,000 kilograms of “sliced pumpkins” and 40,000 kilograms of “sliced sweet potatoes” to Shuanghesheng and sold 230 kilograms of pumpkin seeds, offering over 20 employment positions for villagers, increasing the per capita income by over RMB1,300 and preliminarily developing a leading industry in villages lifted out of poverty.



Villagers in Shimenzi are conducting preliminary processing of pumpkins for Shuanghesheng in poverty alleviation workshops

VIII. FOLLOWING THE GUIDANCE OF BANNERS WITH CONCERTED EFFORTS

Case: QHD Port innovates consumption assistance

The Company resolutely implements the requirements of national, provincial and municipal policies on consumption assistance and established the benefit linking mechanism on “leading enterprises + assistance units + villages lifted out of poverty” with consumption assistance as the bond. The mechanism is mainly composed of five components:

- Firstly, promoting the plantation and processing of agricultural products through consumption assistance. The Company established demonstration bases for the plantation, processing and production of pumpkins and sweet potatoes in Shimenzi Village and developed a benefit linking mechanism with mutual benefits among leading enterprises, assistance units and villages receiving assistance;
- Secondly, exploring distinctive agricultural and sideline products through consumption assistance. The Company developed, procured and sold products of Shimenzi Village through the cooperation with Qinhuangdao Chaoxuan Commerce and Trade Co., Ltd. (秦皇島超炫商貿有限公司), solved the difficulties in sale of honey, facilitated the employment of villagers and built distinctive brands;
- Thirdly, promoting employment through consumption assistance. Through the targeted procurement of “Taolin Spring Water”, the Company facilitated Qinhuangdao Peach Blossom Spring Company and Shimenzi Village to enter into a Cooperation Agreement on Rural Revitalization and Assistance. It recruited villagers to work in their own backyard, purchased commercial insurance for them and provided them with skill training and other welfare;
- Fourthly, establishing the “reverse feeding” assistance mechanism through consumption assistance. The Company entered into a Supplementary Agreement on Consumption Assistance with various leading enterprises and set up the “Consumption and Poverty Alleviation Fund” to achieve the virtuous circle of industry through consumption assistance in areas lifted out of poverty;
- Fifthly, establishing special transit and exhibition areas for consumption assistance. The Company solved the blocks, pain points and difficulties in the “connection of production and sales” and the “connection of catering enterprises and farmers” for the sale of products receiving assistance, making it the first distribution place for such products with the integration of storage, transportation, exhibition, sale and cold chains in Qinhuangdao.

Throughout 2021, the Company purchased agricultural and sideline products of RMB2.14 million and assisted in sales of RMB1.31 million in Qinglong area and donated over RMB49,000 to the Consumption and Poverty Alleviation Fund.



First special transit and exhibition areas for agricultural and sideline products receiving consumption assistance in Qinhuangdao put into operation

VIII. FOLLOWING THE GUIDANCE OF BANNERS WITH CONCERTED EFFORTS

Case: “Moral bank + love supermarket” in Shimenzi Village, Qinglong County put into operation

Based on the experience of three villages lifted out of poverty in Gonghui Township, Zhangbei County, namely Panchengfang, Donghao and Luohuaying, in rural governance, the working group of the Company in the village assisted the village’s “two committees” in formulating and improving the Implementation Plan on Moral Bank and Love Supermarket in Shimenzi Village and the “moral bank + love supermarket” in Shimenzi Village was officially put into operation on a trial basis in September 2021. Through the redemption of items at the love supermarket with moral points, it improved village regulations and facilitated rural governance. While increasing the income of villagers, it also improved the mental quality of villagers.



Villagers redeem incentives with moral points at the love supermarket in Shimenzi Village

Case: Pandemic prevention and control in Shimenzi Village

In 2021, the Company donated materials for pandemic prevention and control to Shimenzi Village and dispatched a working group to assist the village’s “two committees” in implementing various prevention and control measures. They judged the situation of pandemic prevention and control, deployed prevention work, implemented requirements on normalized prevention and control, completed vaccination, set up accounts on pandemic prevention and control and publicized knowledge on pandemic prevention and control to enhance the awareness of villagers.



Pandemic prevention and control in Shimenzi Village

VIII. FOLLOWING THE GUIDANCE OF BANNERS WITH CONCERTED EFFORTS

8.3 Participating in Volunteer and Public Welfare Activities

QHD Port carries out civilized practices in the new era and continuously promotes targeted, normalized and branded volunteer services to warm the public with true feelings, gather people's wishes with services, publicize new thinking of the times and lead new social morality, pooling strong positive power for charity.

Case: Pioneers and examples in volunteer services of the Company

QHD Port always adheres to the idea of “serving society, serving the overall situation, serving young people” and focuses on public welfare and social assistance. Based on the conditions of its industry, the Company carried out regular volunteer activities on offering theories, warmth, health and culture. It has cultivated various pioneers and examples in volunteer services.



Tian Li, a member of the 13th All-China Youth Federation, an outstanding volunteer in volunteer services in learning from Lei Feng in Hebei Province and one of the first moral models of the SASAC of Hebei Province, talked with impoverished students and visited the elderly in Hongyang Elderly Apartment



Zhang Haibo, a member of the 19th CPC National Congress and a national model worker, led the oath at the activity themed “Embarking on a New Journey and Following the Leadership of the Party Forever” and participated in the torch relay of the Beijing Winter Olympics



Li Fuyu, a national model worker and the winner of the National May Day Labor Medal, participated in volunteer services on theory publicity and participated in the torch relay of the Beijing Winter Paralympic Games (photo taken by Zhao Jie from Hebei Daily)

VIII. FOLLOWING THE GUIDANCE OF BANNERS WITH CONCERTED EFFORTS

Through the establishment of the Youth Volunteer Association, the Company organized volunteer activities on social education, environment, employment, culture and sports and made its contributions to building a prosperous society. In 2021, the Company carried out over 50 volunteer activities with over 700 participants and over 1,400 hours.

Case: Volunteer service action on “Acts on Green and Low-carbon Development in Ports”

5 December 2021 marks the 36th “International Volunteer Day”. The Company conducted centralized action on civilized practices and volunteer services in the new era with the theme of “Acts on Green and Low-carbon Development in Ports” at the Qinhuangdao International Tourism Port. With the focus on the publicity of the spirits of the sixth plenary session of the 19th CPC Central Committee and the 10th Party Congress of Hebei Province, the creation of demonstration social programs on green and low-carbon actions, the publicity of the Constitution and embracing the Winter Olympics with public fitness, the Company organized various volunteer service activities such as the publicity of theories and laws, gratuitous treatment, long-distance running for public welfare and the promotion of agricultural products, attracting the participation of various citizens.



Site of the civilized practice and volunteer services in the new era with the theme of “Acts on Green and Low-carbon Development in Ports”

Case: Campaign on respecting the elderly with love

In 2021, the Company conducted the “Campaign on Respecting the Elderly with Love”. Young volunteers carried out service activities in nursing homes, medical care centers, service stations for retired staff, community squares and other places with the elderly gathered. They cut hair, repair household appliance and publicized epidemic prevention and health knowledge, bringing care and warmth to the elderly on a normalized basis.



Campaign on Respecting the Elderly with Love

VIII. FOLLOWING THE GUIDANCE OF BANNERS WITH CONCERTED EFFORTS

Case: Remembrance Day of Lei Feng on 5 March

5 March 2021 marks the 58th Remembrance Day of Lei Feng. The Company and the Public Service Center of Learning from Lei Feng in Qinhuangdao carried out volunteer activities on learning from Lei Feng with the theme of “The World is not Lonely with Love”. The young volunteer service team of the Company visited children with autism at Qinhuangdao Xingyao Autism School and brought them warmth and love during the activities.



Volunteer activities on learning from Lei Feng themed “The World is not Lonely with Love”

Case: Volunteer services on important days

On “1 October National Day”, “5 December International Volunteer Day” and other important days, the Company carried out a series of themed volunteer service activities on caring for children, green and environmental protection, such as “Youthful Volunteers Embracing the National Day with Practical Actions”, “Facilitating Carbon Peak Emissions and Carbon Neutrality and Achieving Green Development” and “Donating Love and Bringing Hope with Books”.



Donation of school supplies

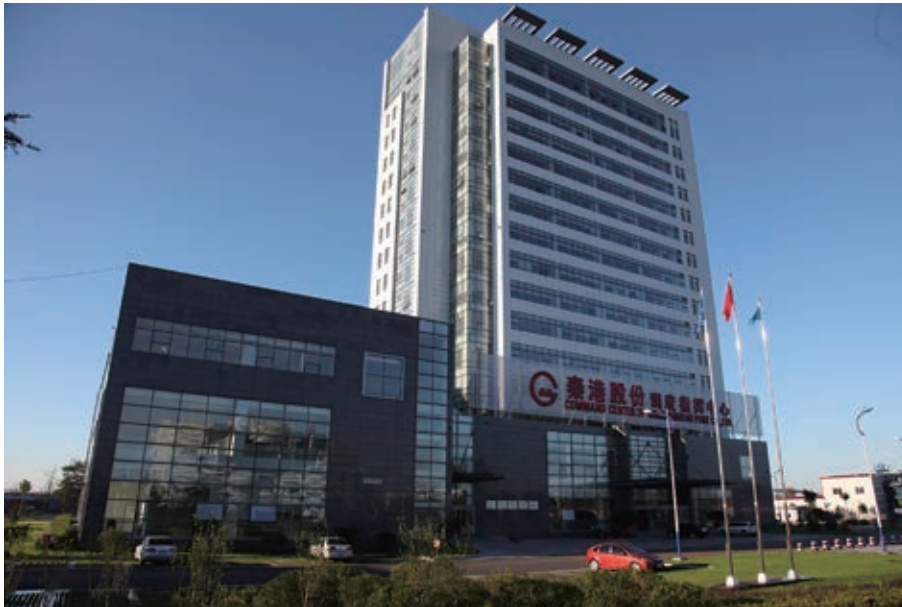


Garbage collection at the seaside

IX. OUTLOOK

With a history of 100 years, QHD Port has firmly seized strategic opportunities in the midst of the historic streak of development. Adhering to the corporate values of “contributing to the country, developing the enterprise, creating value for customers and fulfilling responsibilities for employees”, QHD Port further deepened the transformation and upgrading of the enterprise, vigorously promoted the construction of “smart ports, safe ports and green ports”, further adjusted and optimized the functions of ports and the structure of cargoes and boosted efforts in stabilizing coal production, strengthening mine exploration and increasing oil reserves, achieving leapfrog development in the general cargoes and container businesses. Focusing on effectiveness, QHD Port has enhanced its own profitability and capability on sustainable development and strived to be an operator of industrial clusters at the port with the integration of ports operation, comprehensive logistics services and capital operation with sound governance systems, strong competitiveness and leading economic effectiveness.

Management is the foundation, performance is the target and responsibility is the bottom line. Looking forward, QHD Port will actively respond to national calls and integrate into the “Belt and Road” initiatives and the coordinated development of the Beijing-Tianjin-Hebei region. It will stick to the interactions of ports, industries and cities, adhere to the green development philosophy and put people first to continuously improve its ESG governance and strengthen corporate governance and business ethics. The Company will highlight the development demands of talents, join hands with partners in promoting the construction of industrial chains and value chains, care about disadvantaged groups and be responsible for all stakeholders. QHD Port will achieve the organic integration of economic development and social responsibilities and play the role of SOEs as a major driving force in building the pattern with “dual circulations” to make active contributions to the building of a “beautiful China”.



INDEX TO THE ESG REPORTING GUIDE OF THE STOCK EXCHANGE

Environment, Society and Governance Indicators			Where the disclosure is made
Environment	A1 Emission	General disclosure: in relation to air and greenhouse gas emissions, sewage to water and land, hazardous and non-hazardous waste generation: (a) Policy; and (b) Information on compliance with relevant laws and regulations that have a significant impact on the issuer	V. Building Green Ports with the Environmental and Low-Carbon Concept
		A1.1 The types of emissions and respective emissions data	5.1 Adhering to green operation
		A1.2 Greenhouse gas emissions in total (in tonnes) and where appropriate, intensity (e.g. per unit of production volume, per facility)	5.1 Adhering to green operation
		A1.3 Total hazardous waste produced (in tonnes) and where appropriate, intensity (e.g. per unit of production volume, per facility)	5.1 Adhering to green operation
		A1.4 Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	5.1 Adhering to green operation
		A1.5 Description of measures to mitigate emissions and results achieved	5.2 Building green ports
		A1.6 Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved	5.2 Building green ports
	A2 Use of Resources	General disclosure: Policy in relation to use of resource (including energy, water and other raw materials) efficiently	V. Building Green Ports with the Environmental and Low-Carbon Concept
		A2.1 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility)	5.1 Adhering to green operation
		A2.2 Water consumption in total and intensity (e.g. per unit of production volume, per facility)	5.1 Adhering to green operation
		A2.3 Description of energy use efficiency initiatives and results achieved	5.2 Building green ports
		A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved	5.2 Building green ports
		A2.5 Total packaging materials used for finished products (in tonnes) and, if applicable, with reference to per unit produced	N/A
	A3 Environment and Natural Resources	General disclosure: Policy in relation to minimizing the issuer's significant impact on environment and natural resources	V. Building Green Ports with the Environmental and Low-Carbon Concept
		A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	5.3 Responding to climate change

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Environment, Society and Governance Indicators			Where the disclosure is made
Society	B1 Employment	General disclosure: in relation to compensation and dismissal, recruitment and promotion, working hours, holiday, equal opportunity, diversity, anti-discrimination and other treatment and benefits: (a) Policy; and (b) Information on compliance with relevant laws and regulations that have a significant impact on the issuer	VII. Caring for Employees and Achieving Mutual Growth
		B1.1 Total workforce by gender, employment type, age group and geographical region	7.1 Safeguarding employees' rights and interests
		B1.2 Employee turnover rate by gender, age group and geographical region	7.1 Safeguarding employees' rights and interests
	B2 Health and Safety	General disclosure: in relation to providing safe working environment and protect employees from occupational hazards: (a) Policy; and (b) Information on compliance with relevant laws and regulations that have a significant impact on the issuer	VI. Keeping Alert in Building Safe Ports
		B2.1 Number and rate of work-related fatalities	6.2 Adhering to safety operation
		B2.2 Lost days due to work injury	6.2 Adhering to safety operation
		B2.3 Description of occupational health and safety measures adopted, how they are implemented and monitored	6.3 Protecting occupational health
	B3 Development and Training	General disclosure: Policy in relation to improve the knowledge and skill of employees in fulfilling work duties. Describe training activities	7.2 Supporting career development
		B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management)	7.2 Supporting career development
		B3.2 The average training hours completed per employee by gender and employee category	7.2 Supporting career development
	B4 Labor Standard	General disclosure: in relation to avoid child or forced labor: (a) Policy; and (b) Information on compliance with relevant laws and regulations that have a significant impact on the issuer	7.1 Safeguarding employees' rights and interests
		B4.1 Description of measures to review employment practices to avoid child and forced labor	7.1 Safeguarding employees' rights and interests
		B4.2 Description of steps taken to eliminate such practices when discovered	7.1 Safeguarding employees' rights and interests
	B5 Supply Chain Management	General disclosure: Environment and social risks policy for managing of supply chain	3.4 Regulating supplier management
		B5.1 Number of suppliers by geographical region	3.4 Regulating supplier management
		B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented and the relevant practices	3.4 Regulating supplier management

INDEX TO THE ESG REPORTING GUIDE OF THE STOCK EXCHANGE

Environment, Society and Governance Indicators			Where the disclosure is made
Society	B6 Product Responsibility	General disclosure: in relation to health and safety, advertisement, labels and privacy matters for product and services provided as well as remedies (a) Policy; and (b) Information on compliance with relevant laws and regulations that have a significant impact on the issuer	III. Bearing in Mind the Country's Most Fundamental Interests and Building the Brand Image through Services IV. Leading Smart Ports with Technology Empowerment
		B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons	N/A
		B6.2 Number of products and services related complaints received and how they are dealt with	N/A
		B6.3 Description of practices relating to observing and protecting intellectual property rights	4.3 Assisted by patent management
		B6.4 Description of quality assurance process and recall procedures	N/A
		B6.5 Description of consumer data protection and privacy policies, how they are implemented and monitored	3.3 Upgrading customer service
	B7 Anti-corruption	General disclosure: in relation to the prevention bribery, extortion, fraud and laundering: (a) Policy; and (b) In compliance with relevant laws and regulations that have a significant impact on the issuer	II. Compliant Operation and Steady Advancement
		B7.1 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees	2.3 Compliance operation in accordance with laws
		B7.2 Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored	2.3 Compliance operation in accordance with laws
	B8 Community Investment	General disclosure: Policy in relation to understanding the need of the community where it operates via community participation and ensure that the interests of the community will be considered in its business activity	VIII. Following the Guidance of Banners with Concerted Efforts
		B8.1 Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport)	VIII. Following the Guidance of Banners with Concerted Efforts
		B8.2 Resources contributed (e.g. money or time) to the focus area	VIII. Following the Guidance of Banners with Concerted Efforts

FEEDBACK QUESTIONNAIRE

Dear readers,

Hello! We are very grateful for you to read the 2021 Corporate Social Responsibility Report of Qinhuangdao Port Co., Ltd. The Company places great emphasis on and is expected to hear your feedback about sustainability management, practices and disclosures of QHD Port. Your advice and suggestions are an important basis for the Company to continuously promote the management and practice of sustainability. Looking forward to your reply!

Selective question (please tick the appropriate place)

1. Do you think whether this report can reflect the QHD Port's significant impact on economy, society and environment or not?
Yes ☐ Average ☐ No ☐
2. Do you think whether stakeholders identified in this report and the analysis on relationship between them and QHD Port are accurate and comprehensive or not?
Yes ☐ Average ☐ No ☐
3. Do you think whether the information provided in this report is comprehensive or not?
Yes ☐ Average ☐ No ☐
4. Do you think whether the information provided in this report is readable or not?
Yes ☐ Average ☐ No ☐
5. Open-ended question: Other advice and suggestions from you on the 2021 Corporate Social Responsibility Report of Qinhuangdao Port Co., Ltd. are welcome.

Your Contact Details

Name:

Employer:

Telephone:

Email: