

2023

# 中國同輻股份有限公司 China Isotope & Radiation Corporation

(於中華人民共和國註冊成立的股份有限公司) (A joint stock company incorporated in the People's Republic of China with limited liability) 股份代號 Stock Code: 1763



環境、社會及管治報告

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# DEFINITIONS

Unless otherwise stated, these terms are defined as follows:

China	People's Republic of China
CIRC, the Group, or we	China Isotope & Radiation Corporation and its subsidiaries
CNGT	Chengdu Gaotong Isotope Co., Ltd. (CNGT)
CNNC	China National Nuclear Corporation
CNNC ACCURAY	CNNC Accuray (Tianjin) Medical Technology Co., Ltd.
CNNCHE	CNNC High Energy Equipment (Tianjin) Co., Ltd.
EB Curing	Electron Beam Curing
ESG	Environmental, Social and Governance
ESG Reporting Guide	The Environmental, Social and Governance Reporting Guide set out in Appendix C2 of the Listing Rules
Hazardous Chemicals	Hazardous Chemical Waste
Headway	Shenzhen Zhonghe Headway Bio-Sci & Tech Co., Ltd.
Hong Kong	Hong Kong Special Administrative Region of the People's Republic of China
НТА	HTA Co., Ltd.
IAEA	International Atomic Energy Agency
Listing Rules	The Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited
NO <sub>x</sub>	Nitrogen Oxides
PM	Particulate Matter

CHINA ISOTOPE & RADIATION CORPORATION

# DEFINITIONS (CONTINUED)

SEHK	The Stock Exchange of Hong Kong Limited
SO <sub>x</sub>	Sulphur Oxides
The Company	China Isotope & Radiation Corporation
The Report	China Isotope & Radiation Corporation Environmental, Social and Governance Report 2023
The Year, the Reporting Period	From January 1, 2023 to December 31, 2023

Environmental, Social and Governance Report 2023

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## **ABOUT THIS REPORT**

The Group is pleased to announce the release of its sixth Environmental, Social, and Governance (ESG) Report, which aims to disclose and review the Group's philosophy, initiatives, performance, and commitments in sustainable development for the year 2023, while specifically addressing the key concerns of major stakeholders regarding the Group's sustainability efforts. To fully comprehend the Group's performance in ESG aspects, this Report should be read in conjunction with the "Corporate Governance Report" section of the Group's 2023 Annual Report.

### **ABOUT THE GROUP**

Since its establishment in 1983, as a driving force in China's nuclear technology application industry, China Isotope & Radiation Corporation (CIRC) has taken on the dual mission of building a "strong nuclear industry nation" and a "healthy China." Actively participating in the main battleground of the nuclear technology application industry, CIRC has grown into a leading manufacturer of diagnostic and therapeutic radiopharmaceuticals in China, a major producer of medical and industrial radioactive sources, and the producer with the most comprehensive range of radioactive source products in China. It has become a key force for CNNC in advancing into the field of people's health and a main channel for the transformation of scientific and technological achievements, progressively moving towards becoming a national supplier of critical isotope and radiation technology application products and services.

During the Reporting Period, in the pharmaceutical business segment, the Group consistently provided radioactive drugs to domestic medical institutions and strengthened the promotion of nuclear medicine diagnostic and treatment techniques to clinical departments through support for the work of the Nuclear Medicine Branch of the Chinese Medical Association, thus continuously advancing the development of the existing industry. In the radioactive source product segment, revenue continued to grow, with the radioactive sources developed for the Shenzhou-15 manned spacecraft performing well, ensuring the accurate issuance of the reverse thrust engine ignition command by the altitude control device, and guaranteeing the complete success of the Shenzhou-15 manned spacecraft mission. Additionally, the technology for the reuse of retired radioactive sources made significant contributions in the field of circular economy applications and won the first prize of the Sichuan Low-Carbon Science and Technology Award. In the field of radiation processing, the Group actively expanded the irradiated product market, and continued to focus on and develop the EB curing industry, building an EB curing series of industrial ecosystems. In terms of radiation therapy equipment and related services, the Group accelerated the domestication of high-end radiotherapy equipment. The domestically produced spiral tomography radiotherapy system (TOMO C) by CNNC Accuracy was successfully approved by the National Medical Products Administration, becoming China's first domestically produced high-end medical spiral tomography radiotherapy product.

With the support of CNNC, CIRC enjoys the advantage of its parent company's substantial resources. Leveraging CNNC's outstanding equipment and resources in the fields of isotope and irradiation technology applications, including nuclear reactors, cyclotrons, professionals, and technical reserves, CIRC is rapidly and robustly advancing the localization of isotope raw material production and irradiation product research and development.

# ABOUT THIS REPORT (CONTINUED)

### **Brand Value**

As a forward-looking enterprise, CIRC places significant emphasis on the value and power of its brand. By focusing deeply on the nuclear technology sector and maintaining a dual-focus strategy on product and service development, CIRC continually revitalises its brand, creating long-term value for customers, shareholders, and other stakeholders. In recent years, CIRC has consistently upheld its brand mission of "sowing ideals and achieving health," further refining its brand positioning and structural system. This involves implementing a brand strategy that aligns with the current phase of development, thereby enhancing the bidirectional transmission of brand assets, continuously elevating brand value, and steadily accumulating brand assets.



Picture: CIRC Branding System

## ABOUT THIS REPORT (CONTINUED)

### Market Development

During the Reporting Period, the Group continued to promote brand building efforts. In May 2023, the Group, in collaboration with eight departments of Sichuan Province, successfully held the "Sichuan Province Medical Isotopes and Radiopharmaceutical Industry Development Promotion Summit." In September 2023, the Group supported and participated in the High-Quality Development Conference of the Nuclear Technology Application Industry, the Second China-ASEAN Forum on the Peaceful Use of Nuclear Technology, and other events, releasing cooperative demonstration projects and showcasing nuclear medical equipment and digital exhibits related to nuclear medicine.

Additionally, the Group actively leveraged the value of the IAEA Collaborating Center platform to enhance its international influence. In August 2023, the Group hosted the "International Training Class for Radiopharmaceutical Preparation in the Asia-Pacific Region" under the auspices of the IAEA Radiopharmaceuticals and Radioisotopes Collaborating Center. Fifteen participants from member countries including Thailand, Malaysia, Indonesia, Pakistan, India, South Korea, Japan, and China engaged in on-site teaching and professional exchanges. In September, the Group organized a delegation of experts from the Nuclear Medicine Branch of the Chinese Medical Association to visit the IAEA and hold discussions to strengthen cooperation.

The Group continued to promote the reform of the marketing center, pushing for collaborative, high-quality, and safe development of radiopharmaceuticals, radioisotopes, and radioactive particles businesses. In terms of promoting domestic nuclide markets, the Group integrated internal resources for the production, sales, distribution, and service of domestically produced Lu-177 and Ge/Ga generators, laying the foundation for market expansion after reaching full production capacity in 2024.

CIRC has grown alongside the industry. Under the leadership and practice of the CIRC management, every CIRC employee is interpreting the brand management values of CIRC through their actions, each product, each service, and each behavior.

### **REPORTING SCOPE**

The content and key performance indicators disclosed in this Report primarily concentrate on the Group's core businesses<sup>1</sup> in Mainland China. Unless stated otherwise, the Reporting Period aligns with the *Group's 2023 Annual Report*, spanning from 1 January 2023 to 31 December 2023.

The scope of environmental key performance disclosure in this year's Report will include the addition of the headquarter CNNC High Energy Equipment (Tianjin) Co., Ltd., CNNC Accuray (Tianjin) Medical Technology Co., Ltd. and the removal of BNIBT (Beijing North Institute of Biotechnology Co., Ltd.).

# ABOUT THIS REPORT (CONTINUED)

### **REPORTING GUIDELINE**

The Group compiled the Report in accordance with the latest ESG Reporting Guide from the SEHK. The Report adheres to the mandatory disclosure requirements and the "comply or explain" provisions outlined in the ESG Reporting Guide, and it is structured based on four reporting principles: "Materiality", "Quantitative", "Balance", and "Consistency".

Principles	The Group's response
Materiality	The Group collects stakeholders' opinions through questionnaires and conducts materiality assessments to identify current material ESG issues.
Quantitative	Where feasible, the Group discloses its environmental and social performance indicators in a quantitative manner, providing detailed explanations and comparable data.
Balance	The Group has identified material issues that have significant impacts on its business. The Report comprehensively discloses the Group's performance and impact on ESG based on objective facts.
Consistency	The Group has used consistent methodologies to allow for meaningful comparisons of ESG data over time. If there is any change in the methods used and scope of reporting, it shall be explained in the notes for readers' reference.

### **ACCESS TO THE REPORT**

The Report is prepared and published in Traditional Chinese and English. Should there be any inconsistency, the Traditional Chinese version shall take precedence. You can access and download the electronic version of the report from the Group's official website (https://www.circ.com.cn) or the website of Hong Kong Exchanges and Clearing Limited (https://www.hkexnews.hk/index.htm). If you have any inquiries or recommendations regarding the report, please feel free to contact us via email at ir@circ.com.cn.

The Central Committee of the Communist Party and the State Council attach great importance to people's health, issuing the *Healthy China 2030* Planning Outline" in October 2016, which calls for the construction of a "Healthy China." This is the first time a long-term strategic plan in the health field has been launched at the national level since the founding of the People's Republic of China, serving as an action program for advancing the construction of a Healthy China over the next 15 years.

The Group inherits the corporate mission of CNNC, "Strengthening the Nation through Nuclear Power, Benefiting Humanity," Striving to Achieve the Goals of "Highlighting Uniqueness," "Benefiting People's Livelihood," and "Nourishing Society." Adhering to the new era spirit of the nuclear industry, "dedicating to the country through nuclear power and innovation," and based on isotope and irradiation technology, the Group aims to grow and excel in the two major industries of nuclear medical health and irradiation applications. Through the development and extension of the upstream and downstream industrial chain, we realize the full industrial chain layout of nuclear technology applications.

### **CLOSELY ALIGNING WITH THE "HEALTHY CHINA" DEVELOPMENT PLAN**

### "Healthy China" Group Mission

Guided by General Secretary Xi Jinping's speech on "Healthy China," the Group, following the strategic layout of CNNC, sets the dual mission of "Building a Strong Nuclear Industry" and "Healthy China." We actively participate in the main battlefield of nuclear technology industries, firmly focusing on the "Healthy China" strategy. With the CNNC solution, we assist in achieving the "One County, One Specialty" initiative, committed to optimising and strengthening the health industry, providing excellent products and services, playing a leading role in the application of nuclear technology, actively promoting high-quality development of smart nuclear medicine, and enhancing the quality of people's health and life.

### "健康中国 2030" 规划纲要

Outline of the "Healthy China 2030" Plan

党中央、国务院高度重视人民健康工作,于 2016 年 10 月 25 日发布了《"健 康中国 2030"规划纲要》,发出了建设"健康中国"的号召,是建国以来首 次在国家层面提出的健康领域中长期战略规划,是今后 15 年推进健康中国 建设的行动纲领。



#### Isotope Medium - and Long-term Development Plan

The National Eight Ministries jointly issued the *Medium – and Long-term Development Plan for Medical Isotopes* (2021-2035), proposing to comprehensively advance the construction of nuclear medicine disciplines. By 2025, the goal is to achieve full coverage of nuclear medicine disciplines in tertiary comprehensive hospitals, and by 2035, to realize the "One County, One Specialty" objective. Following the "Healthy China" mission, the Group timely established the Nuclear Medicine Development Center, creating a leading smart nuclear medicine full-cycle integrated solution, providing nine full-cycle services including smart department planning and design, smart venue construction EPC, smart supporting equipment, pharmaceutical supply and smart management, and waste management. This supports the national "One County, One Specialty" development strategy, actively promoting the use of medical isotopes for diagnosis and treatment, and continuously improving the health level of the people.

#### National Hierarchical Medical System Policy

According to the Basic Medical and Health Promotion Law of the People's Republic of China, the state is promoting a hierarchical medical system for basic medical services, classifying diseases based on severity, urgency, and difficulty of treatment. Different levels of medical institutions are responsible for treating different diseases, with common and frequent diseases treated at primary hospitals and difficult, critical diseases at large hospitals. With the Group's leading smart nuclear medicine full-cycle integrated solution, we enhance the medical technology level of county-level hospitals, improve medical service quality, support hierarchical diagnosis and treatment, achieve treatment of serious diseases (cancer) within the county, and realise "early screening," "early diagnosis," and "early treatment." This helps facilitate medical treatment for the public, reduce patients' economic burden and time cost, and has positive significance.

#### High-Quality Development of Public Hospitals

The General Office of the State Council issued the *Opinions on Promoting the High-Quality Development of Public Hospitals,* clarifying the goals, directions, and measures for the high-quality development of public hospitals, which is the fundamental guideline for the reform and development of public hospitals in the new stage. As a leading enterprise in the application of nuclear technology, CIRC has been deeply involved in the field of nuclear medicine for 40 years, covering areas such as radiopharmaceuticals, nuclear medical equipment, radioimmunoassay, and respiratory diagnosis. We provide comprehensive product solutions for users, actively promoting the high-quality development of smart nuclear medicine in public hospitals, practicing the "One County, One Specialty" strategy, which is significant for comprehensively advancing the construction of a Healthy China and better meeting the people's growing demands for a better life.

### LINKING INTERNAL AND EXTERNAL RESOURCES, CREATING A NEW BENCHMARK FOR CENTRAL ENTERPRISES

### Joining Forces with the Nuclear Medicine Alliance, Assisting in the Promotion of Nuclear Medicine

In 2023, CIRC led the establishment of four provincial and municipal-level specialty alliances in key provinces such as Zhejiang, Xinjiang, Shandong, and Sichuan, providing active support for the promotion of nuclear medicine discipline construction.

In June of the same year, CIRC, together with 13 hospitals in Zhejiang Province, established the "Zhejiang Province Radionuclide Therapy Specialty Alliance." As a member of the alliance, CIRC will fully support the construction of nuclear medicine disciplines in the province with radionuclide therapy as the focus, through platform building and service support. By means of expert assistance, expert consultation, lectures and training, we aim to promote the construction of more radionuclide therapy demonstration bases, striving to make Zhejiang Province a national model for radionuclide therapy, contributing to the achievement of the "Healthy China" goal.

In July of the same year, CIRC signed a strategic agreement with the government of the Xinjiang Uygur Autonomous Region to jointly initiate the establishment of the Xinjiang "Belt and Road" Nuclear Medicine Development Committee. As a leading enterprise in the application of nuclear technology under CNNC, CIRC will actively promote the integration of nuclear medicine industry resources, providing turnkey services for smart nuclear medicine to newly built and upcoming hospitals, promoting the standardized and high-quality development of nuclear medicine disciplines and clinical precision diagnosis and treatment throughout Xinjiang.

In December of the same year, CIRC jointly launched the Shandong Province Nuclear Medicine Alliance with several hospitals in Shandong Province. Through talent training, sharing of physician resources, information interconnection and mutual recognition, and joint innovation of drugs with hospitals, the alliance fully supports solving specific problems in the development of grassroots nuclear medicine disciplines, achieving standardized construction and high-quality operation of nuclear medicine disciplines to meet local patients' medical needs.

In December of the same year, CIRC signed a strategic cooperation agreement with the Health Commission of Leshan City, Sichuan Province, jointly establishing the first municipal-level nuclear medicine specialty alliance in Sichuan Province with 11 district and county hospitals in Leshan. CIRC will support the training of nuclear medical professionals and department construction in Leshan through integrated solutions for smart nuclear medicine department construction and resources from the medical isotope industrial chain, benefiting the wider population.

### Smart Nuclear Medicine, Promoting a New Journey of Medical Popularisation

CIRC deepened its cooperation with Peking Union Medical College Hospital, and the jointly developed innovative product "Fuzhi 1.0" smart nuclear medicine system platform was officially launched in September 2023. This system platform established the first national-level smart nuclear medical demonstration base in China, comprehensively promoting the "four modernizations" construction of nuclear medicine departments, including process standardization, monitoring systematization, operation visualization, and management standardization. This initiative set a new benchmark for the smart and high-quality development of nuclear medicine disciplines nationwide.



Strategic Cooperation as a Lever, Building a New Force for Nuclear Medicine Development

CIRC integrates its industrial chain advantages in the application fields of radiopharmaceuticals and nuclear medical equipment, actively promoting market synergy. As of 2023, it has successfully established strategic cooperation with several hospitals and regions in smart nuclear medicine department construction projects, actively practicing the "One County, One Specialty" strategy, and promoting the unique advantages of standardized, smart, and high-quality development of nuclear medicine disciplines.



On February 10-11, 2023, CIRC signed a strategic cooperation framework agreement with Haiyan County. In the future, they will join hands in nuclear medicine construction projects, collaborate with multiple resources, and jointly create a national model for smart nuclear medicine centers.

CIRC Supports the Successful Opening of the Haiyan Government Nuclear Medicine Center Construction Plan



CIRC Signs Strategic Cooperation Agreement with the People's Hospital of Xinjiang

CIRC signed a strategic cooperation agreement with the People's Hospital of Xinjiang Uygur Autonomous Region. With this as an opportunity, both parties will deepen cooperation and jointly build an integrated diagnostic and treatment demonstration base for smart nuclear medicine.

They will jointly establish standardized, regulated, and intelligent guidelines in aspects such as department management, quality control standards, radiopharmaceutical research and development, and discipline upgrading.



CIRC Signs Strategic Cooperation Agreement with Nanjing Medical University

CIRC signed a strategic cooperation agreement with Nanjing International Hospital affiliated with Nanjing Medical University. Both parties will start planning and constructing smart nuclear medicine and laboratory facilities, which will help drive the academic and clinical levels of the hospital's oncology and other clinical departments, playing a positive exemplary role in Jiangsu Province and even nationwide.



CNNCHE Signs Cooperation Agreement with Anhui Yingshang Chengdong Hospital for Tumor Radiotherapy Center

A subsidiary of CIRC, CNNCHE, signed a cooperation agreement for a tumor radiotherapy center with Anhui Yingshang Chengdong Hospital. CIRC will integrate nuclear medical industry resources to provide a comprehensive solution for the hospital's radiotherapy department, including department planning, discipline construction, quality control standards, talent training, and expert resources. This will promote high-quality development of the hospital's radiotherapy department and establish a benchmark project for precision radiotherapy.



CIRC Signs Strategic Cooperation Agreement with Tangshan Urban Development Group

CIRC signed a strategic cooperation agreement with Tangshan Urban Development Group Co., Ltd., actively planning around the production and sales of radioactive therapeutic drugs and the construction and operation of nuclear medical oncology specialty hospitals. Together, they will promote multi-field joint ventures and cooperation, advancing the "One County, One Specialty" construction with high standards and strict requirements.



CIRC Signs Smart Nuclear Medicine Department Cooperation Agreement with Leshan People's Hospital CIRC signed a smart nuclear medicine department construction cooperation agreement with Leshan People's Hospital. The aim is to comprehensively promote Leshan City's "one center, four nuclear medicine departments, seven outpatient clinics" model. With Leshan People's Hospital's Nuclear Medicine Center as the lead, they will promote high-quality development of nuclear medicine departments at different levels.



Panxi Region Nuclear Medicine Specialty Alliance Launch Meeting and High-Quality Development Work Recommendation Meeting Led by Panzhihua Municipal Health Commission CIRC introduced the construction and development of nuclear medicine specialty alliances in multiple regions and witnessed the signing of the "Panxi Region Nuclear Medicine Specialty Alliance Cooperation Agreement" by seven hospitals including Panzhihua Central Hospital. They took the lead in establishing the national demonstration base for the advancement of nuclear medicine diagnosis and treatment work, driving the high-quality collaborative development of nuclear medicine departments in several surrounding public hospitals.

# ASSISTING GRASSROOTS, CONSTRUCTION OF NUCLEAR MEDICINE DEPARTMENTS

To further advance the development of grassroots nuclear medicine and enhance the standardization and high-quality development of nuclear medicine disciplines, supporting the "Healthy China" strategy, the Nuclear Medicine Branch of the Chinese Medical Association and CIRC reached a strategic cooperation. They jointly launched the "Nuclear Medicine Diagnosis and Treatment Work Advancement Demonstration Base" project construction. By organizing experts to provide technical support, academic guidance, and department assistance to grassroots hospitals, the project aims to help hospital nuclear medicine departments reach new heights in clinical technology, discipline construction, quality control standards, and new drugs and technologies. This joint effort promotes the promotion and development of nuclear medicine diagnosis and treatment technology in grassroots hospitals.

### **Demonstration and Project Process**

Each year, 1-2 hospitals are recommended by each province, organised by the chairperson of the provincial nuclear medicine branch, filling out the recommendation form and targeting hospitals. The core expert group evaluates and formulates plans, organizing implementation. After the project is initiated, the expert group and hospital department will jointly negotiate and formulate department improvement goals and plans, with designated experts responsible for project assistance follow-up and visit records. During the project, the expert group and hospital department will jointly organize academic conferences, technical guidance, personnel training, clinical promotion, new technology guidance, and other related activities. They will also plan assistance project activities based on the department's situation and conduct regular evaluations. One year after the project's initiation, the hospital's compliance evaluation will be conducted by an expert group organised by the Nuclear Medicine Branch of the Chinese Medical Association. Departments with an overall score of more than 80 will be awarded the title of "Excellent Department for the Advancement of Nuclear Medicine Diagnosis and Treatment Work by the Nuclear Medicine Branch of the Chinese Medical Association."

### **Demonstration Projects**

# Special Activities for the Construction of the Zhejiang Province Radionuclide Therapy Work Advancement Demonstration Base

In October 2023, to actively promote the development of nuclear medicine in Zhejiang Province and effectively demonstrate the value of nuclear medicine in clinical diagnosis and treatment, under the guidance of the Nuclear Medicine Branch of the Chinese Medical Association, the Nuclear Medicine Physician Branch of the Zhejiang Medical Doctor Association organized an expert team to conduct expert consultations and academic lectures at Quzhou People's Hospital, and to accept the construction of the "Zhejiang Province Radionuclide Therapy Work Advancement Demonstration Base" at Quzhou People's Hospital. This move will also drive the improvement of academic and clinical levels of other clinical departments in the hospital, playing a positive exemplary and benchmarking role in Zhejiang Province and even the Yangtze River Delta region. In addition, this special activity for the demonstration base project marks the first hospital to kick off the alliance construction work, laying a solid first step for subsequent promotion of radionuclide therapy and nuclear medicine diagnosis and treatment projects in more hospitals, and laying a good foundation for the standardized and intelligent high-quality development of radionuclide therapy in Zhejiang Province.



(October 2023, First Special Activities for the Construction of the Zhejiang Province Radionuclide Therapy Work Advancement Demonstration Base)

### Licensing Ceremony for the Promotion Demonstration Base of Nuclear Medicine Diagnosis and Treatment at the General Hospital of Xinjiang Military Region

In July 2023, to strengthen the construction of nuclear medicine diagnosis and treatment work in border areas and further promote the standardisation and popularisation of radionuclide diagnosis and treatment work, after evaluation by experts from the Nuclear Medicine Branch of the Chinese Medical Association, the director of the branch led an expert group to the General Hospital of the Xinjiang Military Region to conduct academic promotion lectures and officially award the "Nuclear Medicine Diagnosis and Treatment Work Advancement Demonstration Base."





(July 2023, Awarding Ceremony of the Nuclear Medicine Diagnosis and Treatment Work Advancement Demonstration Base at the General Hospital of Xinjiang Military Region)

# Anyang Cancer Hospital Passed the "Nuclear Medicine Diagnosis and Treatment Work Advancement Demonstration Base Construction Project" Acceptance

From October 26-27, 2023, the Nuclear Medicine Branch of the Chinese Medical Association and CIRC conducted an acceptance evaluation of the "Nuclear Medicine Diagnosis and Treatment Work Advancement Demonstration Base Construction Project" at Anyang Cancer Hospital. After a comprehensive evaluation, the nuclear medicine department of the hospital successfully passed the review and was awarded the title of "Excellent Department for the Advancement of Nuclear Medicine Diagnosis and Treatment Work by the Nuclear Medicine Branch of the Chinese Medical Association."



(October 2023, Anyang Cancer Hospital Approved and Awarded the "Nuclear Medicine Diagnosis and Treatment Work Advancement Demonstration Base")

### CIRC Assisted Bozhou People's Hospital in Passing the "Nuclear Medicine Diagnosis and Treatment Work Advancement Demonstration Base Construction Project" Acceptance

From November 29-30, 2023, the expert group of the Nuclear Medicine Branch of the Chinese Medical Association and CIRC conducted an acceptance evaluation of the "Nuclear Medicine Diagnosis and Treatment Work Advancement Demonstration Base Construction Project" at Bozhou People's Hospital. After a comprehensive evaluation, the nuclear medicine department of the hospital successfully passed the review and was awarded the title of "Excellent Department for the Advancement of Nuclear Medicine Diagnosis and Treatment Work by the Nuclear Medicine Branch of the Chinese Medical Association." The project approval and awarding of Bozhou People's Hospital injects new vitality into the high-quality development of the hospital's nuclear medicine department and is of great significance for improving the diagnostic and treatment level of the hospital's nuclear medicine department and benefiting the people of Bozhou region.



(November 2023, Bozhou People's Hospital Approved and Awarded the "Nuclear Medicine Diagnosis and Treatment Work Advancement Demonstration Base")

# ADVANCING HIGH-QUALITY DEVELOPMENT OF NUCLEAR MEDICINE WITH PRODUCT AND SERVICE SUPPORT

### Comprehensive Pharmaceutical Center Grid Layout Continues to Improve

Considering the challenges of short-lived radiopharmaceuticals, such as short half-lives and limited distribution range, CIRC continues to expand the construction of positron drug production lines and pharmaceutical center projects, gradually realizing comprehensive coverage development plans for major and provincial cities nationwide. This not only meets the necessary demands of modern nuclear medicine development but also responds to the national development strategy of "Healthy China." As of 2023, CIRC has added four pharmaceutical center project companies in Nanyang, Zhanjiang, Haikou, and Nanchong, totaling 37; additionally, three new centers in Lanzhou, Xi'an, and Nanjing have been put into operation, accumulating 26 operational centers; seven new positron production lines have been added, totaling 22 lines; seven pharmaceutical centers have entered the construction and production certification stage, and five are in the preliminary project stage. The national pharmaceutical center network layout is increasingly perfected, with a clear market advantage, providing good support for the stable supply of drugs to nuclear medicine departments, and also promoting the new construction of nuclear medicine departments in nearby hospitals.

### Promoting Pharmaceutical Production Base Construction, Enhancing Industrial Resilience and Safety Level

As a leading enterprise in the research, development, and production of radioactive isotope drugs in China, CIRC is committed to constructing multiple high-starting-point, high-standard, and comprehensive variety radioactive drug research and production bases to meet market demand, stabilize market supply, and positively impact the continuous development of the nuclear medicine industry and the health security of the people. Currently, there are eight operational or under-construction pharmaceutical production base projects in China. This is a specific measure to implement the "Healthy China" development strategy and the *Medium – and Long-term Development Plan for Medical Isotopes (2021-2035)*. It is also an important leverage to actively practice the new era spirit of the nuclear industry of CNNC, "dedicating to the country through nuclear power and innovation," and a significant measure to further deepen the symbiotic, win-win, and prosperous development of enterprises and localities.

#### Continuously Strengthening Research and Development Investment, Iterating Company Products

In 2023, CIRC continued to increase research and development investment, constantly launching new products and making significant progress. Sodium <sup>18</sup>F fluoride injection has been submitted for marketing application and accepted, completing registration inspection and on-site verification; fluorine <sup>18</sup>F betazine injection and other four products have been approved to enter clinical trials, with a total of eight products currently under research, ranking third in the global research pipeline. The high-end radiotherapy equipment TOMO-C successfully obtained the medical device registration certificate and enterprise production license. The new generation gamma knife project has obtained the product type inspection report and officially started clinical trials. The mobile digital medical X-ray photography system successfully obtained the medical device registration technology for key nuclides made another breakthrough, with the key nuclide <sup>64</sup>Cu now capable of batch supply.

With the continuous enrichment of CIRC's product line and the continuous improvement of the smart nuclear medicine full-cycle integrated solution, the ability to serve the market and hospitals continues to improve. This will greatly support the high-quality construction of nuclear medicine departments in municipal and county-level hospitals, meeting the growing needs of the people.

# PRACTICING CENTRAL ENTERPRISE SOCIAL RESPONSIBILITY, IMPROVING PEOPLE'S HEALTH QUALITY

Under the guidance of the national "Healthy China" strategy, CIRC fully leverages its industrial chain advantages, following the national hierarchical diagnosis and treatment policy and the "One Line, One Specialty" planning goal, and formulates the "One County, One Specialty" development strategy and medium – and long-term planning. This strategy, market-demand-oriented and patient-benefit-centered, aims to promote the integration of tumor diagnosis and treatment, with the goal of promoting high-quality nuclear medical resources to county-level regional medical institutions, supporting the national goal of "treating major diseases within the county." Through technological innovation, management innovation, and model innovation, CIRC is committed to establishing the "One County, One Specialty" promotion model, accelerating the promotion of high-quality nuclear medical resources, making nuclear technology application products and services more popular, high-quality, and convenient, and improving the quality of people's health. This initiative aims to provide patients with more economical, higher quality, and more convenient medical services, achieving the goal of "affordable, effective, and convenient" medical care.

### **ESG GOVERNANCE FRAMEWORK**

Sound corporate governance is the cornerstone of business development. CIRC is dedicated to continuously enhancing the standards of corporate governance. At the governance level, we define the Board of Directors (the "Board") as the authority for compliance management decisions, with the Legislative Affairs Committee serving as the leading body driving compliance management initiatives. Furthermore, CIRC has established a dedicated compliance management leadership body, clearly outlining the compliance management departments and responsible individuals to effectively advance compliance management efforts.

The Group's compliance organisational structure is shown in the diagram below:



Picture: compliance management organisational chart of CIRC

To further enhance CIRC's compliance management, the Board has established the Legislative Affairs Committee and appointed a Chief Compliance Officer, both tasked with overseeing the Group's compliance affairs. Additionally, the Group has devised and implemented the *CIRC Compliance Management System* in accordance with regulatory frameworks such as the Guidelines for *Compliance Management of State-Owned Enterprises (Trial)* and the *Guidelines for Compliance Management of Overseas Operations of Enterprises.* This system delineates the specific components of compliance management, encompassing policy formulation, risk assessment, compliance review, risk mitigation, accountability mechanisms, performance evaluation, compliance training, and more. It explicitly mandates CIRC and its subsidiaries to progressively establish and refine specialised compliance management systems in pertinent key domains, including but not limited to market sales, construction projects, safety and environmental protection, product quality, labour practices, financial compliance, intellectual property rights, business partnerships, sponsorship, and philanthropic activities. Furthermore, it directs the organisation to conduct comprehensive reviews and risk assessments in key operational areas, reinforcing oversight to ensure the Group operates legally and ethically, maintains consistent standards of governance, and achieves sustained, healthy growth.

As a responsible Chinese enterprise, beyond fundamental compliance, the Group actively embraces social responsibilities, continually enhances the ESG governance framework, and elevates the standard of sustainable development management. The Board serves as the highest governance and oversight body responsible for ESG matters, entailing the supervision, assessment, prioritisation, and management of significant ESG issues and risks. This includes formulating and managing ESG-related goals, overseeing goal completion, and continuously refining ESG governance strategies and measures. The Board also regularly reviews and monitors the effectiveness of ESG-related risk management and internal controls, assuming full responsibility for formulating ESG strategies and related reporting. Additionally, an ESG Working Group has been established under the Board's auspices to support the Board in managing ESG affairs, assisting in directing and supervising the governance functions pertaining to ESG issues.

In terms of target management, the Board has authorised the ESG Working Group to oversee the advancement and execution of the Group's ESG objectives and action plans, collect relevant data, and appropriately manage records related to the implementation of objectives and plans. Additionally, the ESG Working Group conducts annual periodic reviews of ESG objectives. Following these reviews, we integrate progress and outcomes of annual objectives, and present proposals for remedial measures and updates to indicators to the Board for approval. We ensure effective control, implementation, and execution of various ESG goals and action plans through the following processes:



Through regular documentation and an annual review mechanism, the Board can gain a better understanding of the progress of the Group's various ESG goals. Concurrently, it can assess and consider the resources needed for ESG development in future business endeavours, thereby laying the groundwork for the Group to establish a more detailed and comprehensive long-term ESG development strategy.

### **ESG RISK MANAGEMENT**

The Group actively manages the ESG risks within its sphere of influence, identifying the following ESG risks that have a significant impact on business operations, and formulating management measures for relevant ESG risks to mitigate the impact of ESG risks on the business. Through a systematic process, the Board is assisted in identifying, assessing, prioritizing, and managing significant risks in the environmental, social, and governance dimensions, with the detailed process as follows:

### Step 1: Risk Identification and Establishment of ESG Risk Library

Analyse the major trends, important sustainability issues, and concerns of peer companies related to the Group's business, screen out 15 ESG risks related to the Group, and establish an ESG risk library for this reporting period.

# Step 2: Prioritization of Risks

The Group scores from two dimensions: "Severity of ESG Risk Impact" and "Likelihood of ESG Risk Occurrence." Based on the scoring results, the ESG risk level and risk matrix are derived, and seven significant ESG risks are identified in the environmental, social, and governance dimensions.

### Step 3: Inviting the Board to Confirm Major ESG Risks

The working group reports the ESG risk results to the Board and invites the Board for final confirmation. The Group formulates and implements corresponding risk control measures for the results and integrates ESG risks into the corporate risk management process.

Based on the ESG risk assessment results, the Group identified the following ESG risks crucial to its operations and business during the reporting period and reviewed the relevant control measures to ensure that these risks are effectively controlled:

Risk level	ESG risks	CIRC's management measures
High	Supply Chain Management	Closely monitor market information and competitors' movements, proactively respond to market changes, accelerate own industry layout, seize market share, and provide one-stop solutions from products to services to enhance competitive advantage.
		Sort out potential risks in the international market opening process around key countries and guide member units in market development risk identification.
		In the process of evaluating suppliers, the Group also pays close attention to the social responsibility, environmental responsibility, and environmental and social performance of suppliers. Suppliers are managed through on-site reviews, data reviews, and record reviews. For example, the HTA Supplier Management Regulations stipulate the quality assessment methods for suppliers, including document qualification audit, on-site quality audit, written audit, and sample testing, and require personnel participating in on-site quality audits to confirm the supplier's qualifications in the report, including certificates such as GSP, GMP, quality management certification, environmental management system certification, occupational health and safety management system certification, etc.

<b>Risk level</b>	ESG risks	CIRC's management measures
Risk level	ESG risks Compliance Risk	<ul> <li>CIRC's management measures</li> <li>Actively respond to risks of legal sanctions, regulatory penalties, financial losses, and reputational losses, and take effective measures for compliance risk control</li> <li>Leverage the advantages of the "Big Rule of Law" functional system, including legal, risk, compliance, internal control evaluation, and system construction, to solidly advance the construction of the rule of law; strengthen the responsibility of the main leaders of units in promoting the construction of the rule of law and continuously improve the effectiveness of risk management, compliance management, and system construction</li> <li>At the governance level, the Board of Directors is defined as the decision-making body for compliance management work, and a compliance management leadership organization established to clarify the responsible departments and persons in charge of compliance management work</li> <li>According to normative documents such as the <i>Central Enterprise Compliance Management Guidelines</i>, (Trial) and the <i>Enterprise Overseas Operation Compliance Management Guidelines</i>, the <i>CIRC Compliance Management System</i> has been formulated to further enhance the compliance management level of China Synchrotron. This system specifies the specific content of compliance management work, including system formulation, risk identification, compliance training, etc. It requires China Synchrotron and its subsidiaries to gradually establish and improve special compliance to academent systems in key areas (including but not limited to management specific</li> </ul>
		systems in key areas (including but not limited to market sales, construction projects, safety and environmental protection, product
		quality, labor movement, financial taxation, intellectual property,
		business partners, sponsorship donations, etc.), organize special
		compliance management process reviews in key business areas, and
		design compliance reviews, compliance risk prevention and control,
		etc., to strengthen the review of business links

<b>Risk level</b>	ESG risks	CIRC's management measures
Medium	Employees	To standardise recruitment and hiring processes, the CIRC Headquarters Employee Recruitment Management Measures, have been formulated, adhering to the principles of "openness, equality, competition, merit-based selection," "virtue and talent, appropriate employment," and "matching personnel with positions," opposing any form of discrimination, and ensuring equal competition in recruitment and promotion without considering factors such as gender, age, race, or physical disabilities
		Talent is broadly recruited through social recruitment, campus recruitment, employee introduction, and talent acquisition. The introduction of headquarters employees must be within the determined establishment range, combined with the shortage situation and job requirements, and proceed according to the procedure. Each unit formulates its annual recruitment plan and specific recruitment management regulations, which are approved by the Human Resources Department for subsidiary companies' recruitment plans
		The Group insists on legal employment, lawful management, and resolutely prevents the employment of child labour and any form of forced labour. The recruitment system stipulates that applicants should be at least 18 years old, and labour contracts are signed with new employees to establish labour relations. If any situation that does not meet the employment conditions occurs during the probationary period, the Group will immediately terminate the employment relationship with the person concerned
		We strictly prohibit unfair or unreasonable dismissal events to protect employees' rights and interests. The CIRC Labor Contract System Implementation Measures have been formulated to strictly regulate the relevant provisions and procedures for the termination of labor contracts according to legal requirements, and clearly define the obligations and standards for economic compensation and damages. Except for the specified conditions (such as new employees violating national laws and regulations during the probation period and receiving penalties, etc.), employees cannot be dismissed without cause

Risk level	ESG risks	CIRC's management measures
	Information Security Management	<ul> <li>Formulate internal policies such as the CIRC Regulations on the Management of Confidentiality Work and the CIRC Interim Measures for the Management of Trade Secrets to clarify the scope of trade secrets, including important customer and supplier data, as well as other market information and operating information such as market procurement and marketing plans, market forecasts, production and sales strategies, operating channels, sales methods, production costs, etc.</li> <li>Require that labour contracts signed with employees include trade secret protection clauses to strictly control the scope of knowledge of trade secret matters</li> <li>As daily office of CIRC's confidentiality work, the Confidentiality Office of CIRC, is responsible for organising and carrying out trade secret protection education and training, confidentiality inspection, confidentiality technology protection, and investigation and punishment of leakage incidents according to law</li> <li>Actively organise various forms of publicity, education, and training activities on trade secret protection, such as marketing training, to enhance the confidentiality awareness and prevention skills of trade</li> </ul>
	Intellectual Property Management	<ul> <li>Secret management personnel and staff who know about trade secrets</li> <li>Formulate the <i>CIRC Technology Investment Project Management Measures</i>, which stipulates the whole process management of intellectual property rights for technology investment projects         <ul> <li>Before the project starts, the project contractor conducts patent searches, carries out patent risk analysis, and includes intellectual property planning in the project's task contract</li> <li>During the implementation of technology investment projects, regularly carry out intellectual property planning and layout</li> <li>For projects that may involve technology or product exports in the future, the Group will carry out international patent planning in advance, and apply for patents as soon as possible if conditions permit; if it is not appropriate to apply for a patent, it will be protected through effective measures such as technical knowhow; new products will be actively protected through trademark registration and other means</li> </ul> </li> <li>Formulate the <i>CIRC Technology Investment Project Management Measures</i>, which stipulate the management and protection of intellectual property rights, and revise the <i>CIRC Technology Investment Project Management Measures</i> and other intellectual property management systems, requiring technology investment projects to implement whole process management of intellectual property rights. Also, formulate incentive systems such as the <i>CIRC Technological Innovation Incentive Reward</i></li> </ul>

Risk level	ESG risks	CIRC's management measures
	Research and	> Closely monitor market information and competitors' movements,
	Development	proactively respond to market changes, accelerate own industry layout,
		seize market share, and provide one-stop solutions from products to
		services to enhance competitive advantage
		Actively develop various imaging diagnostic and therapeutic drugs, committed to detailed market analysis, combining own advantages, industry expertise, and market demand, strictly selecting R&D projects
		to fill gaps in various therapeutic areas of the Chinese market and meet medical needs
		Actively promote self-innovative research, continue to advance the construction of the "1+N" R&D platform system, accelerate the preparation for the construction of external R&D platforms: promote the construction of a leading talent team for scientific and technological innovation, the first batch of postdoctoral researchers at the post-doctoral research station completed the opening report review and midterm academic assessment, and introduced several high-end talents in each R&D centre; applied for scientific research projects and implemented key scientific research projects, and conducted academic exchange activities, successfully holding the "CIBC Technology Lecture"
		series of events

<b>Risk level</b>	ESG risks	CIRC's management measures
	Employee Development and Training	<ul> <li>By formulating the CIRC Management Measures for Education and Training further improve employee management policies and development training plans</li> </ul>
	The Human Resources Department actively manages the education and training work for China Synchrotron's cadre employees, with various departments and personnel at the headquarters responsible for their respective areas, jointly promoting the construction of the China Synchrotron education and training system	
		Committed to providing all employees with high-quality training resources, holding a series of activities such as department staff professional ability enhancement training, safety and quality training, etc., continuously improving employees' knowledge and skills, and promoting their own development
		Continue to use online learning platforms to help employees work and learn more safely and smoothly, and continuously expand training methods and channels; start course construction, preliminarily establish a new employee training course system and lean management course system, to promote the accumulation of enterprise knowledge and good management
		Carry out "communication skills" general courses and knowledge sharing columns, regularly share selected tutor lectures and quality books with employees, such as holding "reading club training activities"

### ADHERING TO RED LINES, FOCUSING ON INTEGRITY MANAGEMENT

The Group upholds the core values of honesty, integrity, and fairness. We have established multiple internal systems regarding anti-corruption, anti-bribery, and integrity in practice, to regulate the compliant behaviour of the Group's related personnel, and are committed to eliminating all forms of corruption, bribery, extortion, and fraudulent practices, adopting a "zero tolerance" attitude towards violations.

### Laws, Regulations, and Internal Management Rules:

The Criminal Law of the People's Republic of China The Securities Law of the People's Republic of China The Company Law of the People's Republic of China The Anti-Money Laundering Law of the People's Republic of China The Law of the People's Republic of China on Administrative Punishment of Public Officials The Securities and Futures Ordinance of Hong Kong The Prevention of Bribery Ordinance of Hong Kong The Anti-Money Laundering Regulations for Financial Institutions Several Provisions on the Integrity of State-owned Enterprise Leaders Provisions on the Professional Integrity of Securities and Futures Business Institutions and Their Employees Compliance Code of Conduct Integrity Practice Manual for Leaders Integrity Practice Manual for Employees CIRC Anti-Fraud Management Measures CIRC Overseas Anti-Corruption Compliance Guidelines

### Internal Integrity Risk Management

To honour our commitment to ethical integrity, the Group focuses on strengthening anti-corruption and anticommercial bribery efforts, establishing a comprehensive internal integrity risk prevention system cantered around the *CIRC Anti-Fraud Management Measures*. To enhance daily supervision of anti-fraud efforts, we have established a permanent anti-fraud department to receive, investigate, report, and provide reasonable opinions on fraud reports, ensuring the Group and its employees' interests and reputation are not compromised. Moreover, the Group emphasizes strengthening the supervision and management of key personnel and areas. The *CIRC Anti-Fraud Management Measures* specifies the anti-fraud responsibilities of senior management, and the *Compliance Code of Conduct* clearly stipulates anti-corruption requirements for employees engaging in drug promotion and medical interactions with medical professionals and institutions.

### Accountability for Fraud

Leadership Responsibility	Refers to the responsibility of management personnel with corresponding leadership authority for the occurrence of fraud incidents within their supervisory or managed scope due to negligence or oversight, resulting in distorted accounting information or concealed losses.
Direct Responsibility	Refers to the responsibility of management personnel and related personnel within their duty scope, directly involved in operations or decision-making, or instructing, ordering, coercing, condoning, or covering up others' fraudulent actions, or failing to perform their duties correctly, resulting in distorted accounting information or concealed losses.

Notably, the Group has formulated the *CIRC Overseas Anti-Corruption Compliance Guidelines* to refine guidance on overseas anti-corruption efforts. The guidelines clarify compliance management requirements for overseas anti-corruption work, providing specific, clear, and actionable guidance, effectively enhancing the ability to identify and prevent overseas corruption risks, and improving the compliance management system to align with international standards.

### Whistleblowing Channels

To improve the anti-fraud work governance system and the internal control process, the Group has formulated and issued the *CIRC Detailed Rules for the Management of Letters, Visits, and Whistle-Blowing.* In terms of receiving whistleblowing information, we have established multiple information collection channels such as hotlines, letters, and visits, and publicized the whistleblowing channels. At the same time, we strictly protect the information of whistleblowers and the content of reports to ensure that reports from employees at all levels and all parties in society that violate professional ethics and damage mutual interests can be collected smoothly and efficiently. For the received whistleblowing information, the Group conducts classification and serious review. Employees who violate the internal system will be handled in accordance with the violation of work or organizational discipline. Employees who violate the law will be transferred to the judicial authority for handling in accordance with the law.

### **Integrity Education**

To enhance employees' integrity awareness, we also actively conduct various integrity education and anticorruption training for employees at all levels and departments of the Group, creating an atmosphere that values integrity. At the same time, we carried out special education, focusing on common and easily occurring risk points in business areas and compliance management, organising comprehensive supervision business training. This year, we produced the *Integrity Practice E-Handbook*, *CIRC Bank of 100 Legal Knowledge Questions*, providing a convenient and precise guide for the integrity practice of cadre employees. We also publicise antifraud policies and measures through office automation systems and training, achieving full coverage of integrity education, organising system-wide learning and knowledge testing of laws and regulations, with a total of 2,980 employees from the headquarters and subsidiary companies participating in legal knowledge quiz, effectively enhancing employees' integrity self-discipline awareness. In addition, we also organised the leadership team members of the headquarters, employees in high-risk positions, and discipline inspection cadres to attend the court hearing of bribery cases at Changping District People's Court in Beijing, experiencing firsthand the serious consequences and legal authority brought about by their job responsibilities.

### **Case: Strengthening Integrity Education for Directors and All Employees**

On December 28, 2023, the Group held a warning education conference, attended by leaders and members of the leadership team from the headquarters and member units, middle-level cadres, and relevant departments such as discipline inspection, auditing, finance, procurement, sales, and project management. This further enhanced the sense of responsibility, urgency, and anti-corruption awareness of all cadres and employees, and required the spirit of the warning education conference to be conveyed to every employee after the meeting.



Picture: China Synchrotron 2023 Warning Education Conference

During the Reporting Period, the Group did not receive any violations of laws and regulations related to bribery, extortion, fraud, and money laundering, nor did it have any material violations of laws and regulations related to anti-corruption or concluded corruption lawsuits.

### **PROFESSIONAL AND EFFICIENT, CLOSE COMMUNICATION WITH STAKEHOLDERS**

We deeply understands the importance of communicating with stakeholders for achieving the Group's sustainable development. We highly value the opinions and concerns of all stakeholders, communicate with them through diversified channels, and establish a comprehensive communication mechanism to ensure we understand their suggestions and expectations. We fully consider the opinions of stakeholders when formulating and implementing sustainable development strategies, continuously improving our sustainable development performance.

During the Reporting Period, the Group conducted a materiality assessment of significant issues for important stakeholders through online surveys. By analysing the survey results of the Group's management and other stakeholders, we summarised the issues that the Group's management and other stakeholders believe have a significant impact on the Group's economic, social, and environmental aspects. By fully understanding their demands and expectations, we integrate them into the Group's sustainable development management policy.

Stakeholder Group	Communication Channels	Sustainable Issue Concerns
Shareholders	Corporate reports and announcements Shareholder meetings Official website	Economic performance Corporate management Compliant operation
Government and Regulatory Authorities	Corporate reports and announcements	Compliance with relevant laws and regulations Tax according to the law
Employees	Employee discussion forum Labor association activities Email	Employee rights and development Health and safety
Customers	Customer visits Customer service satisfaction surveys	Product quality High-quality service
Suppliers	Public tender Interviews and email	Fair and open tendering process Win-win cooperation
Community	Charitable activities	Business compliance Community engagement Environmental protection

#### Materiality Assessment

To identify the most important ESG issues for the Group and timely respond to the concerns of various stakeholders on the Group's ESG performance, the Group regularly conducts materiality assessments and continuously improves the work mechanism and methods of materiality assessment. During the reporting period, the Group conducted a materiality assessment to determine the key disclosure scope of this report. The specific process of materiality assessment is as follows:



The results of our materiality assessment are presented in environmental and social aspects respectively. Please refer to the charts below.


# STEADY GOVERNANCE, COMPLIANT OPERATION



# STEADY GOVERNANCE, COMPLIANT OPERATION

Based on the results of the materiality assessment, the Group categorizes ESG issues into three tiers: Tier 1, Tier 2, and Tier 3. Tier 1 issues are material issues. We will respond in detail to our strategies and performance related to these issues in this report. We will also respond to some practices related to Tier 2 issues in this report.

Issues	Environmental Aspect	Social Aspect
Tier 1 Issues (Material Issues) <sup>2</sup>	<ul> <li>Exhaust gas emissions and management</li> <li>Solid waste generation and management</li> <li>Wastewater discharge and management</li> <li>Protecting the environment and natural resources</li> <li>Energy usage and efficiency</li> </ul>	<ul> <li>Compliant operation</li> <li>Product quality and safety management system</li> <li>Technological innovation</li> <li>Healthcare accessibility</li> <li>Employee health and safety</li> <li>Customer satisfaction</li> <li>Promoting industry development</li> <li>Intellectual property right protection</li> <li>Corporate governance</li> <li>Integrity construction</li> </ul>
Tier 2 Issues <sup>3</sup>	<ul> <li>Water usage and efficiency</li> <li>Greenhouse gas emissions and management</li> </ul>	<ul> <li>Employment management</li> <li>Employee training and development</li> <li>Clinical trial approval procedures</li> <li>Emergencies management</li> <li>Supply chain management</li> <li>Responsible marketing</li> <li>Information security and privacy protection</li> </ul>
Tier 3 Issues⁴	Tackling climate change	<ul> <li>Prevention of child labour and forced labour</li> <li>Community investment</li> </ul>

<sup>2</sup> Issues distributed in the blue area in the materiality matrix

<sup>3</sup> Issues distributed in the green area in the materiality matrix

<sup>4</sup> Issues distributed in the yellow area in the materiality matrix

# GREEN DEVELOPMENT, ENVIRONMENTAL PROTECTION FIRST

The Group actively assumes corporate responsibility, adheres to the concept of sustainable development, and strives to create a "green operation" culture. In our daily operations, we implement various energy-saving and emission-reduction measures to reduce the negative impact on the natural environment and resources, seeking a balance between business development and environmental protection.

The Group strictly complies with laws and regulations such as the Environmental Protection Law of the People's Republic of China on the Prevention and Control of Radioactive Pollution, the Law of the People's Republic of China on Environmental Impact Assessment, the Law of the People's Republic of China on the Prevention and Control of Soil Pollution, the Law of the People's Republic of China on the Prevention and Control of Water Pollution, the Water and Soil Conservation Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Water Pollution, the Water and Soil Conservation Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of China on the Prevention and Control of Atmospheric Pollution, the Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution, the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, the Energy Conservation Law of the People's Republic of China, and Control of Environmental Noise Pollution, the Water Law of the People's Republic of China and other relevant laws and regulations

To further strengthen the management of emissions and resource use, and effectively control risks that have a significant impact on the environment and natural resources, the Group has formulated and continuously revised internal management methods, regulations, and work plans related to environmental protection, including but not limited to:

CIRC Production Safety Responsibility System and Accountability Management Regulations

CIRC Safety Production Responsibility System and Accountability Management Regulations

CIRC Safety and Environmental Protection Management System

CIRC Environmental Protection Management Measures

CIRC Radiation Safety Management Measures

CIRC Safety and Environmental Protection Inspection Management Measures

Environmental Protection Management System (EHS-ZD-038-01)

Waste Classification, Collection, and Disposal Management Regulations (EHS-GC-038-01)

Radioactive Waste Collection and Disposal Management Regulations (EHS-GC-039-02)

In addition, obtaining the corresponding qualifications is a prerequisite for lawful production. Our subsidiaries, HTA, CNNCHE and CNNC ACCURAY, have obtained ISO 14001:2015 environmental management system certification. Headway has obtained the ISO/IEC 17025:2017 Laboratory Accreditation Certificate, meeting the *General Requirements for the Competence of Testing and Calibration Laboratories*, ensuring that the environment of radiation laboratories and other workplaces is at a safe level and preventing significant impacts on the environment.



Picture: ISO 14001:2015 Environmental Management System Certification



Picture: ISO/IEC 17025:2017 Laboratory Accreditation Certificate

During the Reporting Period, the Group did not experience any violations of environmental laws or regulations related to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste, nor any events that had a significant impact on the Group.

### ADHERE TO THE SYSTEM, STRICTLY MANAGE WASTE AND EMISSIONS

During the reporting period, the Group actively responded to the national strategic deployment of green development transformation, avoiding additional financial and time costs due to improper disposal of waste, and taking effective waste management measures to properly dispose of hazardous and non-hazardous waste generated during office processes. Based on the characteristics of the nuclear medicine business, we strictly manage waste emissions produced during the production process and take full measures to reduce the potential impact of waste on the environment.

In terms of hazardous waste management, we pay special attention to the proper handling of radioactive "three wastes" (solid waste, wastewater, and exhaust gas). The Group has formulated internal regulations such as *CIRC Radiation Safety Management Measures, the Regulations on the Management of Radioactive Waste, the HTA Regulations on the Safety Management of Three Types of Radioactive Waste,* and adheres to the principle of "reducing generation, classified collection" during the production process, conducting full-process supervision and management for the production, collection, and disposal of radioactive waste.

Additionally, the Group has set up internal waste storage facilities to temporarily store classified radioactive waste and dynamically inventory the stock, promptly sending waste to the city waste storage facilities for processing. We strictly differentiate between the treatment of radioactive and non-radioactive waste to minimise the potential pollution of the Group's production, operation, and research activities on the environment. Specifically, the treatment requirements for radioactive "three wastes" are as follows:

Solid Waste	<ul> <li>Radioactive waste should be sorted, packed and stored at designated locations</li> <li>Radioactive waste temporarily stored in temporary places should be sealed, stored, labeled clearly, and relevant files should be established</li> <li>The transfer and storage of solid radioactive waste shall be entrusted to a qualified unit, and shall go through formalities and file for storage upon handover</li> </ul>
Wastewater	<ul> <li>Strong acidic and organic radioactive liquid waste is strictly prohibited to be discharged into the radioactive liquid waste pipeline, and shall be separately collected and used in special packaging, which shall be safely stored by the production unit and recorded in detail for storage by the Company</li> </ul>
Exhaust Gas	<ul> <li>Hadioactive waste gas generated in class-A or B workplaces must be puried and Itered, and then discharged into the atmosphere through a dedicated exhaust pipe after reaching the standard</li> <li>Radioactive aerosols (including cobalt <sup>60</sup>Co aerosols) generated during radioactive source operation need to be filtered and puried by a classification filter before discharge, and regular internal and external monitoring</li> <li>Volatile reagents (methanol, trimethylbenzene and ethanolamine) are sealed in reagent tanks, congured in the ventilation cabinet, sealed in the container after conguration, and subsequently sealed in the whole production process. Volatile organic compounds are discharged after being treated by the activated carbon filter device</li> </ul>

Figure: specific requirements for the treatment of radioactive "three wastes"

In addition to strictly regulating the waste disposal process, Headway, a subsidiary of the Group, has strictly managed waste classification and collection by changing sampling methods and inspection methods, reducing the generation of laboratory waste and radioactive waste from the source.

For the management of non-radioactive waste, the Group, on the basis of strictly implementing laws and regulations such as the *Regulations on the Safety Management of Hazardous Chemicals* and *the General Rules for Storage of Commonly Used Hazardous Chemicals*, has formulated internal policies such as *the Measurements on the Safety Management of Hazardous Chemicals* and *the Administrative Measures for Medical Waste* to further strictly regulate the classification, collection, storage, and treatment of non-radioactive waste. According to the *Waste Classification, Collection, and Disposal Management Regulations*, general industrial waste is divided into recyclable waste and non-recyclable waste. The Group stores it in special industrial garbage bins, which are collected and delivered to the waste recycling department for disposal. For non-hazardous waste, the Group entrusts third-party manufacturers or delivers it to the waste recycling station for recycling and treatment, achieving daily production cleaning, including but not limited to the disposal of paper, plastics, glass, metal, and domestic waste.

To properly manage hazardous waste, the Group strictly implements national management regulations and internal systems such as the *Industrial Waste Management System* and *the Management Measures for Hazardous Chemicals and Precursor Wastes*. Through classified collection, hazardous waste warehouses and special containers are set up for special storage, and clear and compliant hazardous waste labels are posted to avoid secondary pollution. For the treatment of hazardous chemicals, the Group entrusts qualified manufacturers to execute according to regulations.

### Specific requirements of the Group for handling hazardous chemicals

- Record the type, nature, quantity, concentration, storage location, storage method, and disposal destination of hazardous chemical waste (liquid and solid) truthfully
- Uniformly formulate and strictly manage the ledger records of the generation and disposal of hazardous chemicals (liquid and solid) to prevent the illegal use and loss of hazardous chemical waste
- Implement a special responsibility system for the collection, temporary storage, declaration, and disposal of hazardous chemical waste, prohibiting random disposal and treatment
- Collection and storage containers for hazardous chemical waste should comply with relevant standards, and subsidiaries are required to formulate corresponding preventive measures for possible leakage risks during storage

In addition to the sorting and classification of waste, hardware management is also an important guarantee for proper waste disposal. To ensure the effective treatment of pollutants and compliance with emission standards, the Group regularly carries out maintenance of environmental protection equipment and facilities, invests sufficient resources in the allocation of instruments and equipment that meet the on-site monitoring requirements, and sets up special personnel for environmental protection. For example, Headway and CNNC ACCURAY have highlighted and monitored locations that may cause environmental hazards, installing alarm devices, formulating emergency drills, and regularly inspecting and maintaining alarm devices to achieve measurable and controllable risks. Additionally, we strengthen the investigation of hidden dangers and environmental risk assessment internally, accept the supervision and inspection of local governments and superior units externally, and further promote the in-depth implementation of environmental protection work.

The Group is committed to improving the level of waste management from the source. We set waste reduction targets in terms of reducing waste at the source and increasing the waste recovery rate to further promote waste reduction work.

Targets	Mana	agement Measures
Strengthen the recycling of office waste paper	AA	Improve the office waste recycling system, and count the amount of office waste paper recycled, etc. Encourage employees to reduce the use of disposable products, purchase reusable employee tableware, etc.
Recycling and Reusing Office Equipment	>	Promote waste classification, improve the waste recycling rate (set up bins for other waste, recyclable waste, hazardous waste, and food waste in each unit)

In daily production and scientific research, the Group also requires responsible units to take all reasonable and feasible process improvement and management measures, such as using advanced automatic equipment, increasing the maintenance of equipment and facilities, optimising and improving processes, and reducing the waste caused by process delay or equipment operation. At the same time, we attach great importance to the education and training of employees, especially the further standardization of job operation training, to minimize the increase in waste caused by human error, reducing environmental pollution by decreasing waste generation from the source.

# GREEN AND LOW-CARBON, STRENGTHENING ENERGY AND RESOURCE CONSERVATION

To become a pioneer in green and sustainable development and actively implement the national strategic deployment of green development transformation, the Group has formulated and implemented the "cost reduction and efficiency improvement" plan. This plan coordinates the improvement of operational efficiency, reduction of energy consumption costs, and focuses on exploring the potential for cost reduction and efficiency enhancement in various aspects such as production operations, technological improvements, on-site management, energy consumption management, and logistics management. To further reduce the consumption of resources such as electricity, water, and fuel, as well as to reduce greenhouse gas emissions from production and operational activities, we have implemented a variety of management measures, including but not limited to:

Category	Management Measures
Energy Use	Post "Save Electricity" environmental protection slogans
	Control air conditioning temperature: set the indoor air conditioning
	temperature not lower than 26°C in summer and not higher than 20°C in winter
	CNNC ACCURAY facility staff should plan the opening of important air
	conditioners and strictly control the switch time of central air conditioning
	according to real-time weather conditions
	Turn off computer monitors and other electrical equipment after work
	Use low-energy lighting devices (e.g., LED lights)
	> Purchase appliances with energy labels (e.g., Grade 1 energy label appliances)
	Headway has replaced some area lights with voice-controlled lights
Water Resource Use	Post "Save Water" environmental protection slogans
	Promote water conservation awareness and guide employees to use water
	resources rationally
	Adopt water-saving systems and appliances (e.g., water-saving taps)
Office Supplies	Post "Save Paper" signs at key locations
	Encourage double-sided printing to reduce paper usage
	Promote paperless (OA) office
Packaging Materials	Implement a packaging material recycling system to reuse most packaging materials

CNNC ACCURAY, a subsidiary of the Group, has established an energy management team composed of heads of various departments to scientifically and reasonably use all kinds of energy, reduce energy waste, lower costs, and improve the overall economic efficiency of the company. This team is responsible for implementing the company's determined environmental policies, regulations, and systems, guiding the revision of energy-saving and consumption-reducing implementation plans, and formulating and reviewing the effects of widely promoted energy-saving new technologies, new materials, and new equipment. They conduct inspections to promptly discover and deal with phenomena such as leaks, drips, and runs; adhere to the daily meter reading system for each working day, compile energy consumption comparison tables, keep abreast of energy consumption at all times, promptly discover abnormal situations, find reasons, and propose rectification opinions; supervise and inspect the energy-saving and consumption-reducing situations of various departments, and have the right to punish departments or individuals who violate regulations based on the energy-saving and consumption-reducing implementation plan.

The Group strongly guides its subsidiaries to improve resource utilization, reduce the consumption of energy, water, and other raw materials, and reduce waste. To achieve multiple uses of water, the subsidiaries have successively established wastewater reuse systems for recycling and treating wastewater generated from cleaning and purified water preparation. The treated water is ultimately used for greening in the plant area, thereby effectively improving the efficiency of water resource utilisation. During the Year, the Group had no difficulties in water sourcing and usage.

Additionally, to strictly manage the discharge of industrial wastewater, Headway, a subsidiary of the Group, has formulated an *Environmental Monitoring Plan* to manage the discharge of industrial wastewater, standardise monitoring and treatment procedures, and comply with the Class III standards of *the Environmental Quality Standards for Surface Water* (GB 3828-2002). Industrial wastewater is recycled and reused by the sewage treatment station within the plant area. Some wastewater containing organic waste liquid (such as wastewater generated from cleaning liquid tanks) is collected uniformly and entrusted to units with hazardous waste treatment qualifications for treatment, strictly prohibiting external discharge. Moreover, Headway's gas collection workshop has improved the production process, significantly reducing the water consumption for cleaning the nozzles, changing manual cleaning of trays to machine cleaning, which not only improves work efficiency but also reduces water consumption. Domestic sewage is treated according to the third-level standard of the second period of the *Discharge Limits of Water Pollutants* of Guangdong Province and regularly conducts environmental and sewage quality testing. Among them, Headway has an independent sewage treatment station that can treat 20 to 30 cubic meters of sewage per day. The treated sewage is used for the toilet flushing system, saving 20 cubic meters of water per day for the company.

Furthermore, we are strengthening production process management. For example, HTA has centralised the production process, reducing production time to achieve emission reduction. For the emissions that need to be discharged into the environment, we have introduced purification and filtration technologies to reduce the adverse impact on the atmospheric environment. For example, the exhaust gas and greenhouse gas of HTA are emitted through the Atomic Energy Research Institute's emission system and activated carbon filtration treatment. Similarly, the exhaust gas generated by Headway is treated by a filter before being discharged outdoors, and it is tested by a qualified testing organization every year to ensure that the emissions meet the relevant standard requirements.

### FACING THE FUTURE, ACTIVELY RESPONDING TO CLIMATE CHANGE

The Group actively supports and responds to the national "Dual Carbon" goals, taking concrete actions at both operational and business levels, comprehensively enhancing climate change management, and continuously strengthening climate risk management performance.

Our main greenhouse gas emissions come from externally purchased electricity for our offices. For this, we have formulated targeted emission reduction measures. We encourage employees to save energy, reduce electricity usage, turn off all lighting fixtures and non-essential electrical appliances during non-office hours to reduce greenhouse gas emissions caused by electricity usage. We encourage departments to make full use of digital office tools, reduce business travel, and incorporate online meetings into standard operating procedures to reduce unnecessary fuel consumption. These measures are expected to reduce greenhouse gas emissions while increasing efficiency. At the same time, we promote "green procurement," prioritizing products that have a lesser negative impact on the environment, using more environmentally friendly products and services, and fully implementing the concept of green environmental protection. Additionally, we actively promote green transportation, establishing classification indicators and corresponding action plans. We have identified leading departments and implementing agencies to ensure that vehicle greenhouse gas emissions are reduced in practice. In particular, we continue to strengthen official vehicle management, refining fuel consumption records, regular maintenance, and other measures to improve the energy efficiency of official vehicles and reduce emissions.

In addition to practicing low-carbon operations, climate change has increased the severity and frequency of global extreme weather events. The Group pays attention to the impact of climate change on business operations, proactively identifying and actively responding to potential risks brought by climate change. Physical risks such as extreme weather and changes in rainfall patterns caused by climate change may endanger the Group's assets, causing financial losses and directly or indirectly affecting the smooth operation of the business. Climate change may also bring different transition risks, including adjusting operational models to adapt to stricter legal regulatory measures and changes in market trends. If the Group fails to respond to market transformation in time, it may lead to asset price fluctuations or worsening credit conditions, resulting in financial losses. The Group is well aware of the significant impact of climate change on global and Group business operations. Facing the increasingly severe threat of climate change, we closely monitor climate-related risks and opportunities to better respond to climate change.

The Group has formulated relevant strategies to address the potential risks brought by climate change and requires each subsidiary to carry out risk identification regularly every year. For example, Headway conducts risk identification regularly every year, identifying main physical risks such as extreme weather and natural disasters, such as typhoons and rainstorms. CNNC ACCURAY has formulated the *Environmental Emergency Preparedness and Response Management Procedures* for potential, urgent, and mass sudden environmental events identified by the company. Headway has established a special working group for flood control and typhoon prevention for extreme weather and natural disasters (such as typhoons and rainstorms) that may affect its business. At the same time, it has formulated and implemented the *Headway Emergency Response Plan for Sudden Environmental Incidents*, developing corresponding measures and procedures for different weather conditions, including formulating the conditions for early warning activation and classifying disaster events into different warning levels. According to the corresponding levels of warning, emergency plans for corresponding events are activated to minimise the impact of extreme weather and natural disasters on the business.

# ENVIRONMENTAL PROTECTION, BUILDING AND CREATING AN ECOLOGICAL CIVILIZATION TOGETHER

The Group pays close attention to the possible impact of the operation process on the surrounding environment and strictly requires the subsidiaries of the Group to implement the minimum control measures for radioactive solid waste. In the annual safety and environmental protection target responsibility statement, the minimum target value for the year is set to achieve the safety management of radioactive solid waste.

During the Reporting Period, we transformed the unorganized discharge of radioactive gases in the workplaces of non-sealed radioactive materials, strengthened the control of radioactive gases in the workplaces of non-sealed radioactive materials, and further improved the quality of the Company's radioactive workplaces and the surrounding environment. According to the *Procedures for Identification, Evaluation, and Control of Environmental Factors*, each subsidiary is required to regularly identify environmental factors and significant environmental factors and determine corresponding control measures.

The Group implements systematic safety management measures. For example, when constructing, renovating, expanding, carrying out safety rectification, operating, and decommissioning radioactive workplaces, relevant implementation units are required to simultaneously design and approve pollution prevention facilities and the main part of the project, carry out construction and acceptance at the same time, strictly implement the "Three Simultaneities" management system, organise environmental impact assessments and acceptance tests, and implement risk prevention measures to ensure that environmental risks are controllable. At the same time, the Group improved various emergency plans, formulated the *Comprehensive Emergency Plan for Work Safety Accidents*, the *Emergency Plan for Radiation Safety Accidents*, and the *Emergency Plan for Industrial Work Safety Accidents*, standardised emergency response measures, and improved emergency response capabilities to avoid leakage accidents and reduce the impact of accidents on the environment.

To safely dispose of various types of waste, Headway and CNNC ACCURAY has incorporated environmental protection work into the monthly and annual assessments of relevant departments and promoted work through examinations. In addition, Headway has established an EHS committee responsible for safety, environmental protection, and occupational health management. CNGT has established an environmental management system and has obtained external certification for its environmental management system.

Looking to the future, CIRC will continue to strive to become a participant, contributor, and leader in ecological civilization construction, practice the concept of green development, vigorously carry out green production, adhere to safety and environmental protection first, and provide strong momentum for the healthy and sustainable development of enterprises.

### **OVERVIEW OF ENVIRONMENTAL PERFORMANCE<sup>5</sup>**

	Unit	2023 Data	2022 Data
Air Pollutant Emission			
NO <sub>x</sub> emission	Tonnes	2.66	2.54
SO, emission	Tonnes	0.001	0.001
PM emission	Tonnes	0.05	0.07 <sup>6</sup>
Greenhouse Gas Emission			
GHG emission (scope 1)7	tCO <sub>2</sub> e	484.06	636.30
GHG emission (scope 2)8	tCO <sub>2</sub> e	6,317.84	7,194.55
Total GHG emission	tCO <sub>2</sub> e	6,810.90	7,830.84
Total GHG emissions intensity	tCO <sub>2</sub> e/RMB100 million	102.52	127.41
	of revenue		
Energy Use			
Total purchased electricity	kWh in '000s	13,052.05	12,863.81
Purchased electricity intensity	kWh in '000s/RMB100 million	196.72	209.30
	of revenue		
Total purchased steam	kWh in '000s	149.82	113.64
Purchased steam intensity	kWh in '000s/RMB100 million	2.26	1.85
	of revenue		
Total gasoline (vehicle) consumption	kWh in '000s	222.32	247.58
Intensity of gasoline (vehicle) consumption	kWh in '000s/per gasoline vehicle	9.26	14.56
Total diesel (vehicle) consumption	kWh in '000s	625.52	557.63
Intensity of diesel (vehicle) consumption	kWh in '000s/per diesel vehicle	52.13	50.69
Use of Water Resources			
Total water consumption	Tonnes	56,762.28	78,386.00
Total water consumption intensity	Tonnes/RMB100 million	855.50	1,275.40
	of revenue		

- <sup>5</sup> For this Year's environmental performance, the Group has removed the BNIBT (Beijing North Institute of Biotechnology Co., Ltd.) and added the headquarter CNNCHE (CNNC High Energy Equipment (Tianjin) Co., Ltd.) and CNNC ACCURAY (CNNC Accuray (Tianjin) Medical Technology Co., Ltd.).
- <sup>6</sup> The data for the year 2022 has been verified, updated, and recalculated.
- <sup>7</sup> Greenhouse gas emissions here are direct greenhouse gas emissions generated by vehicles, construction machinery, diesel generators and refrigerants consumed during the Year, as well as greenhouse gas removals from newly planted trees. The calculation methods are based on the Appendix II: Reporting Guidance on Environmental KPIs issued by the Stock Exchange, the Guidelines for Accounting and Reporting Greenhouse Gas Emissions from Road Transport Enterprises (Trial) issued by the Ministry of Ecology and Environment of the People's Republic of China, and the Guidelines for Accounting Greenhouse Gas Emissions from Other Industrial Enterprises (Trial) issued by the National Development and Reform Commission of the People's Republic of China.
- The greenhouse gas emissions here are derived from indirect greenhouse gas emissions generated during the production process of purchased steam and purchased electricity. The calculation methods are based on the Guidelines for Accounting and Reporting Greenhouse Gas Emissions of Enterprises in Other Industries (Trial) issued by the National Development and Reform Commission of the People's Republic of China and the Notice on the Work Related to the Management of Greenhouse Gas Emissions Reporting of Power Generation Industry in 2023-2025 issued by the Ministry of Ecology and Environment of the People's Republic of China.

	Unit	2023 Data	2022 Data
Packaging Materials			
Total packaging materials	Tonnes	5,399.89°	217.08
Total packaging material intensity	Tonnes/RMB100 million of revenue	81.38	3.53
Hazardous Waste			
Hazardous chemicals generated	Tonnes	0.0002	0.0040
Intensity of hazardous chemicals generated	Tonnes/RMB100 million of revenue	3.01 × 10 <sup>-6</sup>	7.00 × 10 <sup>-5</sup>
Radioactive Waste			
Radioactive waste gas generated	Cubic metres	39,802,062	35,123,413
Intensity of radioactive waste gas generated	Cubic metres/RMB100 million of revenue	599,880.36	571,484.10
Radiation source generated	Pieces	260	254
Waste generation intensity	Pieces/RMB100 million of revenue	3.92	4.13
Low-level radioactive waste (solid)	Tonnes	78.38	60.98
Low-level radioactive waste (solid) intensity	Tonnes/RMB100 million of revenue	1.18	0.99
Low-level radioactive waste (liquid)	Tonnes	3.20	4.72
Low-level radioactive waste (liquid) intensity	Tonnes/RMB100 million of revenue	0.05	0.08
Non-hazardous Waste			
Non-radioactive Waste			
Waste packaging materials generated	Tonnes	64.25	131.83
Intensity of waste packaging materials generated	Tonnes/RMB100 million of revenue	0.97	2.14
Office paper generation	Tonnes	8.14	12.65
Office paper generation intensity	Tonnes/RMB100 million of revenue	0.12	0.21
Domestic waste generated	Tonnes	82.59	72.2
Domestic waste generation intensity	Tonnes/RMB100 million of revenue	1.24	1.17
Waste water discharge			
Waste water discharge	Cubic metres	<b>2,790.00</b> <sup>10</sup>	15,810.00
Intensity of wastewater discharge	Cubic metres/RMB100 million of revenue	42.05	257.24

<sup>9</sup> The total amount of packaging materials increased in this year is due to the inclusion of the headquarter CNNCHE (CNNC High Energy (Tianjin) Equipment Co., Ltd). and CNNC ACCURAY (CNNC Accuray (Tianjin) Medical Technology Co., Ltd.).

<sup>10</sup> The significant decrease in wastewater discharge in 2023 is because in this Year's environmental performance disclosure does not include BNIBT (Beijing North Institute of Biotechnology Co., Ltd.)

# **QUALITY ASSURANCE, CREATING VALUE**

The Group believes that sustainable management of suppliers is the cornerstone of maintaining our service quality. We are committed to permeating the concept of sustainable development from our own level to our supply chain. Through effective supply chain management, the Group selects high-quality and reliable supplier resources, establishes solid cooperative relationships with suppliers that comply with business ethics, and builds a mutually trusting and win-win friendly relationship with suppliers based on the principles of "openness, fairness, justice, selection of the best, honesty and trustworthiness, standardisation and efficiency, and supply guarantee."

In terms of regulating the bidding and procurement process, the Group strictly complies with the *Law of the People's Republic of China on Tendering and Bidding* and the *Regulation on the Implementation of the Law of the People's Republic of China on Tendering and Bidding* and other laws and regulations. It has formulated the *CIRC Supplier Management Measures, the CIRC Procurement Management Measures*, the *CIRC Procurement Management Measures*, the *CIRC Bidding and Procurement Management Measures*, and *the CIRC Non-bidding Procurement Management Measures* to ensure the stable and smooth circulation of the supply chain. In terms of supplier management, the Group conducts thorough management of suppliers based on internal systems such as the *CNNC Supplier Management Measures* and the *Supplier Management Control Procedures*, and strictly reviews suppliers in the following aspects:



Figure: factors for supplier review

# ADHERING TO STANDARDS, STRICT CONTROL OF SUPPLIER SELECTION AND EVALUATION

To achieve digital management of suppliers, the Group requires each subsidiary to establish a corresponding supplier management system, managed by the safety, environmental protection, and quality department, with cooperation and information sharing from the user department, procurement department, warehousing management department, and after-sales service department. Dynamic and quantitative assessment of suppliers' performance is an important measure to strengthen management. CIRC organises and conducts supplier performance evaluation annually. Suppliers who fail to meet performance requirements will have their qualified supplier status revoked; suppliers with bad behaviour will be included in the supplier blacklist and whitelist. Each subsidiary has also formulated and implemented the corresponding assessment management system, auditing and hiring suppliers according to the documents filed with the National Medical Products Administration or dealing with the suppliers' breach of contract accordingly.

The Group manages suppliers in a tiered manner based on audit factors, classifying them into core suppliers, important suppliers, and general suppliers. Additionally, we integrate environmental protection concepts into every link of the supply chain. We purchase goods and services that have a lesser negative impact on the environment, using more environmentally friendly products and services, and fully implementing the concept of green environmental protection.

Classification	<b>Division/Unit Classification</b>	Access Method		
Core Item Suppliers	Class I Suppliers	<ul> <li>Evaluated and included in the Group's list through unified access evaluation by the Group Company</li> </ul>		
Important Item Suppliers				
General Item Suppliers	Class II Suppliers	<ul> <li>Access-record suppliers are evaluated by individual member units authorized by CIRC, included in the division list after review, and applied for Group Company filing through the electronic procurement platform</li> <li>Suppliers in the Group's list can be</li> </ul>		
		directly included in the division list		

Chart: Supplier Tiered Management Method

The Group implements the tendering and procurement procedures according to national laws and regulations. For construction projects that must be tendered by law, the specific procedures generally include issuing tender notices, conducting qualification reviews, forming bid evaluation committees, opening bids, evaluating bids, publicizing, and determining bids. These procedures are carried out according to the national Tendering and Bidding Law and its implementation regulations. For non-tendered procurement projects, CIRC implements according to the Company's Procurement Management Measures and Non-tendered Procurement Management Measures. Except for single-source procurement, suppliers are determined competitively to ensure that the procedures comply with the best market principles; single-source procurement is limited by unique patents or technologies, and the purchase price is generally determined through negotiations between the parties.

### FOCUSING ON EVALUATION, CONCENTRATING ON MULTIFACETED SUPPLIER RISK AUDITS

The social responsibility, environmental responsibility, and environmental and social performance of suppliers are also key considerations in the Group's supplier evaluation. The Group implements a supplier access management mechanism, conducting on-site audits, data audits, and filing audits to strictly control the hiring of suppliers.

To effectively control environmental and social risks in the supply chain, the Group periodically assesses issues that may pose environmental and social risks, proposing corresponding control measures. For example, in terms of compliance risk avoidance, CIRC comprehensively carries out compliance risk investigation and risk control work, requiring promotion service providers (CSO companies) to issue anti-commercial bribery and non-affiliation commitment letters, ensuring the integrity of cooperation with CIRC and the legitimacy of business transactions. Additionally, CIRC has established major risk control, tracking, monitoring, and early warning mechanisms for core and important suppliers to identify and assess the significant negative impacts on the environment and society generated or potentially generated by the supply chain. At the same time, to mitigate and control the significant negative impacts on the environment and society generated or potentially suppliers to ensure stable supply.

To ensure that procurement products meet quality standards and supply is stable, we have developed catalogues for procurement strategic products and advantageous products. We also require each subsidiary to enhance the planning of procurement, establish procurement plan review procedures, clarify division of responsibilities, manage procurement plans uniformly, and implement procurement according to approved procurement plans and schemes, in accordance with national laws and regulations and relevant regulations of CNNC. Except for emergency procurement, tendering procurement implemented on public resource trading platforms according to national regulations, and confidential procurement, all types of procurement activities are implemented through electronic procurement on the CNNC electronic procurement platform. We carry out bidding work for construction projects and related work for non-bidding procurement projects according to management measures, with specific procedures generally including issuing tender notices, conducting qualification reviews, forming bid evaluation committees, opening bids, evaluating bids, publicizing, and determining bids.

During the Reporting Period, the number of suppliers that followed the above practices for hiring suppliers in CIRC was 203, accounting for one third of the total number of suppliers. At the same time, each subsidiary has also formulated its own supplier management system, clearly defining the quality assessment methods for suppliers, including document qualification audits, on-site quality audits, written audits, and sample testing, and requiring personnel participating in on-site quality audits of key raw and auxiliary materials to record aspects such as the supplier's plant and facilities, equipment conditions, etc. Personnel participating in on-site quality audits should also confirm in the supplier's on-site quality audit report whether the supplier has certificates such as the Good Supply Practice (GSP) certificate, Good Manufacturing Practice (GMP) certificate, quality management system certification, environmental management system certification, occupational health, and safety management system certification, etc. For construction projects independently invested and built by CIRC, we ensure that there are environmental protection-related investments and carry out procurement of pollution prevention facilities for environmental protection.

Supplier Data	2023
Total number of suppliers	597
By geographical region	
China Region	582
Overseas	15

### SAFETY FIRST, FOCUSING ON PRODUCT SAFETY

The Group strictly abides by laws and regulations related to health, safety issues, and remedial methods, including the *Product Quality Law of the People's Republic of China, Production Safety Law of the People's Republic of China, Regulations on Safety and Protection of Radioactive Isotopes and Radiation Devices, Regulations on the Administration of Transport Safety of Radioactive Articles, the Measures for the Administration of Radioactive Pharmaceuticals, the Code of Conduct for the Safety and Security of Radioactive Sources, the Regulations on the Safety Management of Hazardous Chemicals, the Nuclear Safety Law of the People's Republic of China. We have developed and improved internal management policies, including Responsibility System for Safety Duty Personnel, the Regulations on the Safety Management of Safety Management of Construction Projects, the Responsibility System for On-site Safety Officer of Construction Projects, and the Regulations on the Safety.* 

The Group firmly believes that production safety is the lifeline of enterprise development. We implement strict product safety and quality control, integrating safety objectives into the entire process of production and operation. To enhance safety management levels, the Group regularly conducts various safety inspections and technical improvements, establishes a safety production committee, and holds quarterly safety work meetings. In addition, the Group requires all subsidiaries to strictly implement the production safety responsibility system, actively develop safety management systems, and ensure the normal operation of product safety and production activities.

HTA and CNGT, based on the requirements of the *Drug Administration Law of the People's Republic of China* (2019 Revision) regarding pharmacovigilance quality management, have formulated relevant requirements (including but not limited to):



CNGT has clarified in the Safety Management Protocol, the responsibilities of the safety production committee of member units in the safety management system, indicating that the safety production committee is the leading body for safety production and safety management work, responsible for decision-making on major safety issues. The Safety Management Protocol also standardises safety management content such as radiation safety, general safety, transportation safety, and includes safety education and training, safety performance assessment, and occupational health management.

HTA pays high attention to the safety management of radioactive sources and radioactive substances. It has formulated and implemented the *Regulations on the Safety Management of Radioactive Sources and Radioactive Substances of HTA*, requiring all units and subsidiaries to establish their own safety management responsibility systems and strictly comply with safety management regulations on the purchase, production, sales, recycling, storage, transfer, import and export, and transportation of radioactive sources and radioactive substances. In activities such as procurement, borrowing, transfer, storage, and contract processing of radioactive raw materials, a unified approval system must be strictly implemented. Units affiliated with HTA (non-independent subsidiaries) are allowed to carry out the above activities only after obtaining approval from the competent leaders. At the same time, HTA and each production unit must code each radioactive sources, devices containing radioactive sources, and radiation devices to unqualified units and individuals are strictly prohibited. Before delivery, it is also necessary to ensure that all products sold have passed the approval of the environmental protection department in the customer's region, comprehensively strengthening the supervision of radioactive sources and radioactive sources.

To enhance the ability to properly respond to emergencies, the Group continuously improves management mechanisms and strengthens emergency preparedness and response capabilities. We have established emergency organisations and set up work plans and measures such as the *CIRC Production Safety Emergency Management Measures*, the *CIRC Production Safety Accident Comprehensive Emergency Plan*, and the *CIRC Production Safety Accident Reporting and Investigation Measures*. We have improved the emergency management system and formulated three special emergency plans: the *CIRC Radiation Accident Emergency Plan*, and *CIRC Industrial Safety Accident Emergency Plan*, and *CIRC Environmental Emergency Plan*.

### **QUALITY BUILDING FOUNDATION, FOCUSING ON PRODUCT QUALITY**

The Group unswervingly carries out production and operation activities based on the quality policy of "regulated operation, safety first, brand foundation, and success at once." CIRC and its subordinate units strictly follow ISO 9001 and have passed the ISO 9001 quality management system certification.



Picture: quality management system certificate

In addition, we regularly carry out quality improvement work and organise quality management (QC) group activities and "quality month" activities every year. The Group has established a scientific and comprehensive quality management system and formulated the *CIRC Quality Management Regulations*, the *CIRC Quality Accident (Incident) Management Measures, CIRC Quality Supervision and Management Measures, CIRC Quality Information Management Measures, CIRC Quality Training Management Measures, and CIRC Quality Management Group Activities Management Measures.* 

After-sales support is also an important part of quality management. The *CIRC Quality Management System* requires product manufacturing units to establish a sound post-sale (repair) service guarantee mechanism and promptly solve quality problems that arise after product delivery. Each unit, based on regulations such as the *Administrative Measures for Drug Recalls, the Administrative Measures for Medical Device Recalls, the Good Manufacturing Practice for Drugs (2010 Edition), the Good Manufacturing* Practice for Drug Recalls, such as the Administrative Measures for Drug Recalls, the Procedures for Product Recalls Control, and the Administrative Procedures for Product Returns and Recalls These documents provide detailed regulations on the definition, scope, responsibilities of each department, and working procedures of recall and have developed records for drug safety hazard investigation and assessment, medical device investigation and assessment forms, recall incident report forms, recall notices, recall plans, etc.

Strengthening product quality inspection is necessary to protect customer interests, maintain corporate reputation, and enhance economic benefits. The product quality control section of the *CIRC Quality Management System* clearly stipulates the three major stages of quality inspection: incoming inspection, process inspection, and final product inspection. Products that fail inspection are not allowed to be released. We also require monitoring and measurement of the characteristics of purchased raw and auxiliary materials, in-process products (semi-finished products), and finished products according to the quality standards and inspection standard operating procedures of various products to verify that product requirements have been met.

For the control and management of non-conforming products, the Group has clearly defined the relevant work processes in the *CIRC Quality Management System*. The disposal process of non-conforming products is as follows:

Identification: After product procurement, warehousing verification is carried out. If non-conforming products are found, they should be marked, isolated, and recorded, and the non-conformity should be recorded on the Notice of Unqualified Products. At the same time, the person in charge of quality in the operation department and the safety and environmental protection department should be notified.

Review: Organize relevant personnel to evaluate non-conforming products according to the *Notice of Unqualified Products.*  Approval: *The Review* and *Disposal Form* of *Unqualified Products* shall be submitted for approval. Disposal: Non-conforming products are disposed of according to the approved disposal method.

The final disposal methods for non-conforming products include acceptance with concession (only applicable to general non-conforming products without substantial impact), scrapping, negotiation with users or return or exchange of products, notifying customers to stop using or recall products.

During the Year, the Group did not receive any returns of products sold or shipped due to safety and health reasons.

# INNOVATION-DRIVEN, FOCUSING ON SCIENTIFIC AND TECHNOLOGICAL RESEARCH AND DEVELOPMENT

CIRC has deeply analysed and accurately grasped the domestic and international economic development situation during the "14th Five-Year Plan" period. With reform and innovation as the driving force, focusing on improving economic benefits and high-quality development as the core, and "controlling the source, strengthening the core, and expanding application" as the path to achievement, we strive to realize the strategic goal of "expanding, strengthening, and improving" the nuclear technology application industry and actively integrate into the new development pattern of domestic and international "dual circulation". Focusing on the two major industrial directions of nuclear medical health and irradiation application, CIRC will comprehensively accelerate the development pace of seven business units, including radiopharmaceuticals, medical diagnostics, radioactive sources, irradiation applications, nuclear medical equipment, nuclide manufacturing, and import and export trade, aiming to build the Group into an international nuclear technology application product and service supplier with strong resource control capability, reasonable industrial layout, efficient management system, and strong independent innovation capability.

The Group's strong R&D capability is its core competitiveness. Our R&D team is devoted to developing new products, optimizing production technology, and promoting the safety and efficacy upgrade of existing products. We actively promote independent innovation research and have achieved significant results. The Group continues to advance the "1+N" R&D platform system construction, actively carrying out the construction of provincial and ministerial-level R&D platforms: as a co-building unit, CIRC's "Isotope Engineering Technology Research Centre CIRC Branch" was approved by the Zhejiang Provincial Development and Reform Commission, and HTA and CNGT were approved as "Beijing Municipal Enterprise Technology Centre" and "Chengdu Municipal Enterprise Technology Centre," respectively.

At the same time, the Group intensifies the construction of the science and technology innovation leading talent team. The Group currently has 2 foreign high-end talents, 12 national-level talents, and 12 provincial and ministerial-level talents. The postdoctoral research workstation completed the introduction of 1 overseas Ph.D. The R&D centres continue to strengthen the introduction of high-level talents through flexible approaches such as "dual employment", making the scientific research talent team more rational and the structure more complete.

### Cases: Achievements of scientific research projects (partial)

As of December 31, 2023, CIRC owned several imaging diagnostic and therapeutic radiopharmaceuticals in various stages of R&D. Among them, Sodium <sup>18</sup>F Fluoride Injection has completed clinical trials and submitted a marketing registration application. Iodine <sup>131</sup>I-MIBG Injection, <sup>68</sup>Ga-Dotatate Injection, and Fluorine <sup>18</sup>F Betazen Injection, among other drugs, have been approved for clinical trials, as well as several other radiopharmaceuticals for imaging diagnosis and treatment in the pre-clinical development stage

Protecting intellectual property is protecting innovation. The Group strictly complies with the Patent Law of the People's Republic of China, the Copyright Law of the People's Republic of China, the Regulations on National Defense Patent, the Anti-Unfair Competition Law of the People's Republic of China, and Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements among other related laws and regulations, continuing to invest resources in technological innovation and intellectual property protection.

We embed intellectual property protection work throughout the entire process management of scientific research projects: before project initiation, incorporating intellectual property planning content into the project task contract; during the project implementation, regularly adjusting intellectual property planning and layout, and for projects that may involve technology or product export in the future, carrying out international patent planning in advance. We classify and protect various types of intellectual property rights to comprehensively strengthen the strategic guidance of corporate intellectual property rights.

Furthermore, to strengthen the encouragement for employee innovation, we have formulated the *CIRC Incentive Measures for Technological Innovation* and issued the *CIRC Management Measures for Science and Technology Award Selection* to further stimulate innovation vitality.



Picture: First Prize for Low Carbon Science and Technology in the Research on the Reuse Technology of Retired Radioactive Sources

Within this year, CIRC applied for a total of 298 patents and obtained 240 patent authorizations, including 149 invention patents, among which 5 were foreign patents. The technological strength continues to increase.

### **HIGH-QUALITY SERVICE, ENHANCING CUSTOMER SATISFACTION**

The Group's marketing system operates under a unified management and hierarchical responsibility structure, where the Market Operation Department oversees the macro-management of the CIRC system's market, while each subsidiary implements sales and market management in their respective business areas. The *CIRC Marketing Management Measures (Trial)* mandates each subsidiary to establish a customer management system for closed-loop management of customer file completion, customer service, handling of customer opinions and complaints, customer callbacks, and customer satisfaction surveys. The Group also intensifies the supervision and inspection of each subsidiary's customer satisfaction work. According to the *CIRC Customer Satisfaction Management Measures*, the progress of each subsidiary's customer satisfaction rectification plan is regularly inspected to enhance the effectiveness of rectification. Additionally, by consolidating the responsibilities of the accountable department and continuously refining the working mechanism, we enhance the responsiveness to customer needs.

Establishing an effective and smooth customer communication channel is crucial for improving customer satisfaction. The Group actively creates communication bridges by organising customer exchange meetings, academic promotions, and user visits. On one hand, the Group introduces its products and relevant business information during these activities, and on the other hand, it actively listens to customer feedback and suggestions, promptly responding to customer inquiries and needs. This approach ensures that customers feel valued and respected, thereby continuously enhancing market competitiveness. The Group pays attention to the effective resolution of customer complaints, regularly or irregularly inspecting each department's complaint handling process, and incorporating product and service complaint situations, handling outcomes, and implementation into the performance indicators of relevant personnel in each department. During the Reporting Period, the Group has not any complaints related to products and services.



Figure: process for responding to product and service complaints

There is a specific handling process for pharmaceutical complaints. For example, the *Complaint Management Regulations* of HTA Good Manufacturing Practice (GMP) stipulates that the investigation and handling of drug quality complaints must be conducted by designated personnel and sufficient supporting staff.

Particular caution is exercised in handling complaints about the quality of radiopharmaceuticals. For instance, for general complaints, upon receiving a complaint, the radiopharmaceuticals marketing centre of CIRC notifies the relevant business department of HTA, which must complete the handling and provide feedback within 24 hours. For major complaints, the process is escalated, and the overall handling is controlled within five working days. The radiopharmaceuticals marketing centre immediately informs HTA's overall marketing service department, which then provides feedback to HTA's quality department. Finally, the relevant business department communicates the handling results to the customer, ensuring that measures are taken prudently and promptly to manage potential risks and enhance the customer experience.

### **CONFIDENTIALITY OF INFORMATION AND EMPHASIS ON CUSTOMER RIGHTS**

The Group manages advertising and labelling in compliance with the Advertising Law of the People's Republic of China, prioritising the protection of customers' and partners' privacy and trade secrets to maintain a healthy market order. To strengthen the protection of customers' and partners' rights, the Group not only adheres to relevant laws and regulations regarding advertising, labelling, privacy, and remedies, such as the *Trademark Law of the People's Republic of China* and the Law of the People's Republic of China on the Protection of State Secrets, but also implements internal policies like the CIRC Regulations on Confidentiality Management and the CIRC Measures for Trade Secrets Management. These policies clearly define the scope of corporate trade secrets, including crucial customer and supplier data, market procurement and marketing plans, market forecasts, production and sales strategies, business channels, sales methods, and production costs. The Group also strictly follows national laws and regulations that prohibit advertising and promotion of special drugs like anaesthetics, psychotropic drugs, toxic drugs for medical use, radioactive drugs, pharmaceutical precursor chemicals, and treatments for detoxification.

The Group pays close attention to the confidentiality of important information, adhering to the principles that "the person in charge of business is responsible for confidentiality" and "confidentiality measures should be implemented wherever business activities take place." The confidentiality office, the daily administrative body for CIRC's confidentiality work, is responsible for organising trade secret protection training, conducting confidentiality inspections, enhancing technical safeguards, and investigating and addressing leaks. A zerotolerance policy is adopted for breaches of confidentiality. In cases of state secret or corporate trade secret leaks due to errors or mismanagement, responsible individuals will face administrative or legal consequences.

The foundation of confidentiality work is people. Employees are required to sign labour contracts with trade secret protection clauses before joining, ensuring strict control over the access to confidential information. Regular training is conducted for personnel involved in trade secret management and those privy to such information, enhancing their awareness and ability to protect confidentiality and ensuring the absolute security of corporate trade secrets.

During the Reporting Period, the Group did not experience any serious violations of laws and regulations related to product health and safety, advertising, labelling, intellectual property rights, or privacy.

# **PEOPLE-ORIENTED, CARE FOR WIN-WIN**

The Group considers its employees as the most valuable and essential assets and believes that they are the foundation for sustainable development. Therefore, it places great emphasis on talent management, striving to create a corporate culture and work environment that foster employee well-being and development. Through various channels, the Group recruits, nurtures, and retains outstanding talents to build a competitive team.

The Group strictly complies with laws and regulations related to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare that significantly impact the Group, such as the *Labour Law of the People's Republic of China*, the *Labour Contract Law of the People's Republic of China*, the *Law of the People's Republic of China on the Protection of Minors*, and the *Social Insurance Law of the People's Republic of China*. The Group advocates for equal opportunities, diversity, and anti-discrimination. While continuously optimizing the talent management system, the Group has formulated detailed internal systems and established employee communication channels to safeguard employees' legitimate rights and interests.

During the reporting period, the Group did not receive any violations of laws and regulations related to recruitment, dismissal, remuneration, promotion, working hours, holidays, equal opportunities, diversity, antidiscrimination, nor did it receive any violations or complaints related to illegal employment of child labour and forced labour that have a significant impact on the Group.

As of the end of the year, the total number of employees in the Group was 3,105 (2022: 3,366). Please refer to the table below for details.

Number of employees	2023	2022
By Gender		
Male	2,135	2,195
Female	970	1,171
By Age		
20 - 30 years old	905	954
31 - 40 years old	1,310	1,431
41 - 50 years old	645	674
51 - 60 years old	245	307
By Employment Type		
Leadership	8	7
Middle level	100	87
General staff	2,997	3,272

Number of employees	2023	2022
By Geographical Region		
Beijing	842	1,036
Guangdong	402	449
Sichuan	236	322
Jiangsu	132	134
Shanghai	100	100
Tianjin	87	196
Anhui	234	312
Zhejiang	79	141
Jilin	24	27
Hainan	21	23
Others <sup>11</sup>	948	62612

As at the end of the Year, the overall employee turnover rate was 11.1%. For details, please refer to the table below.

	Number of	
	Employees	
Employee Turnover Data	Turnover	Turnover Rate
By Gender		
Male	250	11.7%
Female	95	9.8%
By Age		
20 – 30 years old	121	13.4%
31 - 40 years old	129	9.8%
41 - 50 years old	54	8.4%
51 - 60 years old	41	16.7%
By Geographical Region		
Beijing	75	8.9%
Guangdong	55	13.7%
Sichuan	14	5.9%
Jiangsu	3	2.3%
Shanghai	16	<b>16.0%</b>
Tianjin	2	2.3%
Anhui	36	15.4%
Zhejiang	6	7.6%
Jilin	5	20.8%
Hainan	0	0.0%
Others	133	14.0%

<sup>11</sup> The number of employees in "others" region includes Liaoning, Inner Mongolia, Shaanxi, Hunan, Hubei and Chongqing.
<sup>12</sup> The employee count in Hubei region has been reclassified into "others" region as part of the 2022 annual update.

### STRENGTHENING EMPLOYEE CARE AND ENHANCING EMPLOYEE SATISFACTION

To further standardise the recruitment process and employment procedures, the Group has established the *Administrative Measures for the Recruitment of Employees in the Headquarters of CIRC* continuing to adhere to the principles of "openness, equality, competition, and merit," "moral and talent-based recruitment," and "matching personnel with positions." We strictly prohibit any form of discrimination and do not use gender, age, race, or physical disabilities as criteria for recruitment and promotion, striving to create and maintain an equal competitive environment. Through channels such as social recruitment, campus recruitment, employee referrals, and talent acquisition, the Group attracts talents and promotes its own development. Within the approved staffing scope, we introduce headquarters employees based on vacancy and job requirements following the procedures. Each unit also develops annual recruitment plans and specific recruitment management regulations according to their needs, submitted to the human resources department for approval of subsidiary recruitment plans.

The Group strictly abides by laws and regulations such as the Labour *Law of the People's Republic of China* and the *Labour Contract Law of the People's Republic of China*, adhering to legal employment and management. We have established internal employment systems and regulations to resolutely eliminate child labour and any form of forced labour. Our recruitment system stipulates that candidates must be at least 18 years old and establishes labour relations by signing labour contracts with new employees. If any non-compliance with employment relationship with the involved parties.

To further protect employees' legal rights and interests, the Group strictly prohibits unfair or unreasonable dismissals. In accordance with relevant laws and regulations, we have formulated the *Implementation Measures* for the Labour Contract System of CIRC Headquarters to further standardise the provisions and procedures for terminating labour contracts with employees, clarifying the obligations and standards for payment of economic compensation and severance pay. Except for specified circumstances (such as termination of a new employee's labour contract due to punishment for violating national laws and regulations during the probation period), employees shall not be dismissed without cause.

In terms of remuneration, based on the company's overall budget and the Group's total salary budget requirements, the human resources department formulates the total salary budget for the next year annually. The Company's salary distribution is based on company performance, job value, employee performance, and capability, considering factors such as local average wages, minimum wage standards, local price levels, and labour supply and demand. The salary distribution primarily adopts a position performance wage system supplemented by a negotiated wage system. According to the duties and requirements of each position, the company divides positions of different values into nine levels: company leadership, assistant general manager, deputy chief engineer, department manager, deputy department manager, senior supervisor, supervisor, staff, and clerk. If an employee's position changes, the salary grade and scale should be adjusted accordingly, determined by the position level. Additionally, the Group has formulated and implemented the *CIRC Measures for the Administration of Total Wages* and the *CIRC Measures for the Administration of Employee Welfare Fees* to promote and refine the remuneration system structure, comprehensively considering factors such as the overall salary level in the industry and employee performance when determining employee remuneration.

The Group highly values employee welfare and strictly adheres to national and local laws and regulations on labour, welfare, and insurance, such as the *Social Insurance Law of the People's Republic of China*. Additionally, the Group has further developed and implemented employee retirement benefit plans, medical and work-related injury insurance plans, and housing provident fund plans to provide more benefits for employees. The Group consistently prioritises protecting employee welfare and offers various welfare subsidies, including but not limited to:

Staff medical examination fees	Heating subsidies
Heat-proof and cooling fees	Subsidies for employees' difficulties
Staff canteen subsidies	Relay subsidies
One-child fee	Funeral allowance
Subsidies for infants	Funeral condolences
Family Planning Awards	Medical subsidies for employees' childrer
Off-site safety expenses for employees	Staff retirement visit
Employee leave pay	Off-balance-office expenses for retirees

Furthermore, the Group has formulated the *CIRC Headquarters Staff Attendance Management Regulations*, implementing an 8-hour workday and 40-hour workweek, with two days off per week and adherence to national statutory holiday arrangements. For production positions in subsidiaries, a shift system is implemented to ensure reasonable working hours for employees. Employees also enjoy work-related injury leave, sick leave, maternity leave, marriage, and funeral leave, and paid annual leave.

### FOCUSING ON OCCUPATIONAL HEALTH, CREATING A SAFE WORK ENVIRONMENT

The Group is committed to safeguarding employees' safety and physical and mental health, striving to create a healthy, safe, and friendly workplace. Given the Group's involvement in radiation technology, we always prioritize employees' health and occupational safety. The Group strictly adheres to laws and regulations related to providing a safe work environment and protecting employees from occupational hazards:

Fire Protection Law of the People's Republic of China	Administrative Measures for Occupational Health of		
	Radiological Staff		
Production Safety Law of the People's Republic of	Regulations on the Safety Management of Radioactive		
China	Material Transport		
Law of the People's Republic of China on the	Regulations on X, $\gamma$ External Exposure Individual		
Prevention and Control of Occupational Diseases	Monitoring		
Regulations on Safety and Protection of Radioactive	Basic Standards for Radiation Protection and Radiation		
Isotopes and Radiation Devices	Source Safety		

Building on this foundation, to further protect the health and rights of the Group's employees, strengthen prevention and control in research and production processes, and determine measures related to occupational health and safety, CIRC has established a complete safety responsibility system and management system, including the following systems:

CIRC Safety and Environmental Protection Management System	CIRC Contractor Safety Management and Reward and Punishment Measures
CIRC Radiation Safety Management Measures	CIRC Measures for the Reporting and Investigation of Production Safety Accidents
CIRC Industrial Safety Management Measures	CIRC Production Safety Emergency Management Measures
CIRC Environmental Protection Management Measures	CIRC Management Measures against 'Three Violations'
CIRC Fire Safety Management Measures	CIRC Regulations on the Administration of Identification and Control of Hidden Dangers in Work Safety
CIRC Measures for the Supervision and Administration of Occupational Health	CIRC Implementation Rules for the Management of Nutrition and Health Fees for Radioactive Workers
CIRC Safety Production Responsibility System and Accountability Management Regulations	CIRC Radiation Safety Accident Emergency Plan
CIRC Safety and Environmental Risk Management Measures	CIRC Comprehensive Emergency Plan for Production Safety Accidents
CIRC Safety and Environmental Protection Inspection Management Measures	CIRC Emergency Plan for Industrial Safety Accidents
CIRC Safety and Environmental Protection Training Management Measures	CIRC Emergency Plan for Environmental Emergencies

#### Occupational Safety and Health Management Framework

The Group is dedicated to creating a safe and healthy working environment for employees. The headquarters of CIRC has established a safety production committee with full-time safety management personnel, and each member unit has a safety management organisation to conduct hierarchical management and control of the Group's safety risks, promoting safety standardization across the system. Additionally, the EHS Committee assesses physical and potential risks in various departments and production processes, formulating improvement plans and preventive measures to reduce employees' safety and health risks. In terms of preventing and controlling occupational diseases, each unit follows the principle of "prevention first and integration of prevention and treatment," controlling risks from the production process, continuously enhancing maintenance and innovation of production processes, equipment, facilities, and operation technology. Emergency response plans and specific measures are established to minimise pollution and hazards in the production environment and prevent occupational health hazards to employees.

#### Health and Safety Management

In terms of occupational health management for radioactive workers, the Group provides labour protection and protective equipment based on job requirements and strictly follows regulations for regular occupational health check-ups for radioactive workers. Personal dosimeters are provided to employees at work locations for regular inspections. This year, all test results for the Group's employees were normal. In occupational health management, units with occupational hazard risks are required to conduct workplace and individual monitoring. Occupational exposure individual dose monitoring results are properly preserved and sent to CIRC's Safety, Environmental Protection, and Quality Department. To enhance employees' awareness of occupational health and safety, the Group has organized various training and promotional activities this year to improve employees' self-protection awareness and capabilities, preventing potential accidents.

The Group highly values employees' physical and mental health. To help employees relieve work stress, we actively organize festive events, sports meet, team-building activities, and other employee events, enhancing team spirit and creating a harmonious group and work atmosphere.

During the past three consecutive financial years (including the Reporting Period), the Group did not experience any significant safety accidents or work-related deaths. During the Reporting Period, the Group had no working days<sup>13</sup> lost due to work injuries. The Group also did not have any non-compliance in providing a safe work environment and protecting employees from occupational hazards.

### **BUILDING A TALENT HUB, VALUING EMPLOYEE TRAINING AND DEVELOPMENT**

CIRC consistently strives to create a fair, harmonious, and development-oriented work environment for employees. By formulating the *CIRC Management Measures for Education and Training*, we have further refined our employee management policies and development training plans. Under the leadership of the CIRC Party Committee, the Human Resources Department of the Group actively centralizes the management of education and training for CIRC cadres and employees. The departments and personnel at the headquarters are responsible for division of labour, jointly advancing the construction of CIRC's education and training system. The Group is dedicated to providing high-quality training resources for all employees, organising a series of activities such as professional capability enhancement training for department personnel, safety and quality training, continuously improving employees' knowledge and skills, and promoting their personal development.

Additionally, the Group continues to utilise the CIRC online learning platform to facilitate safer and smoother work and learning for employees. Through the online learning platform and expanding training methods and channels, the Group has initiated the construction of a course library, initially establishing training courses for new employees and a lean management course system to promote the accumulation of corporate knowledge and good management. We have also conducted general courses on "Communication Strength" and knowledge-sharing columns, regularly sharing selected instructor lectures and high-quality books with employees.

<sup>13</sup> The number of working days lost due to work-related injuries only includes the work-related injury identification procedures passed by the local social insurance administrative department.

During the year, the Group trained 3,105 employees. For specific training data, please refer to the table below.

	Percentage of Employees Trained <sup>14</sup>		Average Training Hours of	
			Employees	
	2023	2022	2023	2022
By Gender				
Male	<b>68.76</b> %	63.36%	109	104
Female	31.24%	36.64%	101	93
By Employee Category				
Leadership	0.26%	0.35%	220	128
Middle Level	3.22%	7.54%	110	103
General Staff	96.52%	92.11%	103	100

<sup>14</sup> The calculation method of the percentage of employees trained is: the number of employees trained in the category/ total number of employees trained \* 100%.

# **CARING FOR SOCIETY, BUILDING A BETTER WORLD**

While focusing on its own business development, the Group closely monitors the needs for sustainable development in the community. CIRC always insists on giving back to society with gratitude, striving to gain broader social recognition, creating greater social benefits alongside economic benefits, and tirelessly shouldering the responsibility of understanding and meeting community needs.

### **REMEMBERING OUR MISSION, COMMITTED TO CHARITABLE PRACTICE**

The Group actively carries out social donation activities, strictly adhering to laws and regulations such as the *Law of the People's Republic of China on Public Welfare Donations* and the *Administrative Measures for External Donations of CNNC*. According to the regulations, the donation work of each directly affiliated unit and subsidiary must be reviewed and approved through the internal decision-making process; commitments to donations made must be fulfilled honestly, and all forms of false publicity or promises are strictly prohibited. According to the relevant provisions of the *CIRC Measures for the Administration of External Donations*, the types of external donations are divided as follows based on different recipients of subsidies:

#### **Relief donations**

Refers to donations which shall be used in production, livelihood relief and succour for people suffering from natural disasters, or living in old revolutionary base areas, ethnic minority areas, border areas, and underdeveloped areas that are identified by the state or designated aid areas, as well as other vulnerable groups and individuals

#### Charity donation

 Refers to donations which shall be used in social welfare undertakings such as education, technology, culture, hygiene, sports, environmental protection, energy conservation and emission reduction

#### **Other donations**

 Refers to donations for other public and welfare undertakings aiming at promoting humanism or social development apart from the above mentioned categories, as well as fulfilling VNNV's social responsibilities

# CARING FOR SOCIETY, BUILDING A BETTER WORLD

In addition, CIRC actively implements the "Healthy China" strategy, contributing to the implementation of the "One County, One Specialty" development plan by donating RMB1.5 million, collaborating with the Wu Jieping Medical Foundation to establish the CIRC Smart Nuclear Medicine Special Fund. The fund mainly supports the construction of "One County, One Specialty" smart departments in the field of nuclear medicine nationwide, talent cultivation, scientific research, science popularization education, clinical training promotion, and diagnosis and treatment assistance for impoverished patients.

#### **Case: CIRC's Material Investment in Public Welfare Activities**

- 1. HTA donated a total of RMB200,000 to the flood disaster area in Zhuozhou, supporting local flood prevention, disaster relief, and post-disaster reconstruction efforts; it also donated RMB100,000 yuan to Baihe county to aid rural revitalisation development.
- 2. CNNNCHE donated RMB50,000 for rural revitalisation funds to Yajiang County, Ganzi Prefecture, and approximately RMB15,000 for beautifying rural areas in Mucheng Town; it donated RMB18,200 in living and learning supplies for left-behind children to the Caring for the Next Generation Working Committee of Tongcheng City, and RMB5,000 in scholarship funds to Longteng Sub-district.
- 3. CIRC actively carried out rural revitalisation procurement assistance activities, purchasing rural revitalisation products worth RMB239,500 from Shizhu, Tongxin, Baihe, and other areas across the system, used for distributing holiday consolation gifts and work supplies to employees.

We also actively participate in various public welfare activities, including relief for earthquake-stricken areas, educational poverty alleviation, setting an example to promote the improvement of people's lives and community development.

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE CONTENT INDEX

Aspect	Content	<b>Relevant Section</b>
Governance		
Governance Structure	A statement from the Board containing:	ESG Governance Framework
	(i) Disclose the Board's oversight of ESG issues;	
	<ul> <li>(ii) the Board's ESG management approach and strategy, including the process of evaluating, prioritizing and managing material ESG-related issues (including risks to the issuer's business); and</li> </ul>	
	(iii) how the Board reviews progress against ESG related objectives and explains how they relate to the issuer's business.	
Reporting Principles	Describe or explain how the following reporting principles are applied in preparing the ESG Report	Reporting Guideline
Reporting Scope	An explanation of the reporting scope of the ESG Report and a description of how the entities or businesses are selected for inclusion in the ESG Report. If the scope of the report changes, the issuer should explain the differences and the reasons for the changes	Reporting Scope

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE CONTENT INDEX (CONTINUED)

Aspect	Content	Relevant Section
A. Environmental A1 Emissions		
General Disclosure	Relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste:	Adhere to the System, Strictly Manage Waste and Emissions
	(a) the policies; and	Facing the Future, Actively Responding to Climate
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer	Change
A1.1	The types of emissions and respective emissions data.	Overview of Environmental Performance
A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions and intensity	
A1.3 A1.4	Total hazardous waste produced and intensity Total non-hazardous waste produced and intensity	
A1.5	Description of emission target (s) set and steps taken to achieve them	Adhere to the System, Strictly Manage Waste and
A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction	Emissions
	target (s) set and steps taken to achieve them	Facing the Future, Actively Responding to Climate Change
Aspect	Content	<b>Relevant Section</b>
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A2 Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and raw materials of other materials	Green and Low-Carbon, Strengthening Energy and Resource Conservation
A2.1	Direct and/or indirect energy consumption by type in total and intensity	Overview of Environmental Performance
A2.2	water consumption in total and intensity	
A2.3	Description of energy use efficiency target (s) set and steps taken to achieve them	Green and Low-Carbon, Strengthening Energy and
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target (s) set and steps taken to achieve them	Resource Conservation
A2.5	Total packaging material used for finished products and with reference to per unit produced	Overview of Environmental Performance
A3 The Environment and		
Natural Resources		
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	Environmental Protection, Building and Creating
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	an Ecological Civilisation Together
A4 Climate Change		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer	Facing the Future, Actively Responding to Climate Change
A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them	

Aspect	Content	Relevant Section
B. Social		
B1 Employment		
General Disclosure	Relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare:	People-Oriented, Care for Win-Win, Strengthening Employee Care and Enhancing Employee Satisfaction
	(a) the policies; and	
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer	
B1.1	Total workforce by gender, employment type, age group and geographical region	
B1.2	Employee turnover rate by gender, age group and	
	geographical region	
B2 Health and Safety		
General Disclosure	Information relating to providing a safe working environment and protecting employees from occupational hazards:	Focusing on Occupational Health, Creating a Safe Work Environment
	(a) the policies; and	
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer	
B2.1	Number and rate of work-related fatalities occurred	
	in each of the past three years including the reporting	
	year	
B2.2	Lost days due to work injury	
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	

Aspect	Content	<b>Relevant Section</b>
B3 Development and		
Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work; description of training activities	Building a Talent Hub, Valuing Employee Training and Development
B3.1	The percentage of employees trained by gender and employee category	
B3.2	The average training hours completed per employee by gender and employee category	
B4 Labour Standards		
General Disclosure	Relating to preventing child and forced labour:	Strengthening Employee Care and Enhancing
	(a) the policies; and	Employee Satisfaction
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer	
B4.1	Description of measures to review employment practices to avoid child and forced labour	
B4.2	Description of steps taken to eliminate such practices when discovered	
B5 Supply Chain		
Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain	Adhering to Standards, Strict Control of Supplier
B5.1	Number of suppliers by geographical region	Selection and Evaluation
B5.2	Description of practices relating to engaging	Focusing on Evaluation,
	suppliers, number of suppliers where the practices	Concentrating on
	are being implemented, how they are implemented and monitored	Multifaceted Supplier Risk Audits
B5.3	Description of practices used to identify	
	environmental and social risks along the supply	
	chain, and how they are implemented and monitored	
B5.4	Description of practices used to promote	
	environmentally preferable products and services	
	when selecting suppliers, and how they are	
	implemented and monitored	

Aspect	Content	Relevant Section
B6 Product Responsibility		
General Disclosure	Information relating to health and safety, advertising, labeling and privacy matters relating to products and services provided and methods of redress:	Safety First, Focusing on Product Safety
		Quality Building
	(a) the policies; and	Foundation, Focusing on Product Quality
	(b) compliance with relevant laws and regulations	
	that have a significant impact on the issuer	High-Quality Service, Enhancing Customer Satisfaction
		Confidentiality of Information and Emphasis on Customer Rights
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	Quality Building Foundation, Focusing on Product Quality
B6.2	Percentage of total products sold or shipped subject to recalls for safety and health reasons	High-Quality Service, Enhancing Customer Satisfaction
B6.3	Description of practices relating to observing and protecting intellectual property rights	Innovation-Driven, Focusing on Scientific and Technological Research and Development
B6.4	Description of quality assurance process and recall	Safety First, Focusing on
	procedures	Product Safety Quality Building Foundation, Focusing on Product Quality
B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored	Confidentiality of Information and Emphasis on Customer Rights

Aspect	Content	<b>Relevant Section</b>
B7 Anti-corruption		
General Disclosure	Relating to bribery, extortion, fraud and money	Adhering to Red Lines,
	laundering:	Focusing on Integrity
		Management
	(a) the policies; and	
	(b) compliance with relevant laws and regulations	
	that have a significant impact on the issuer	
B7.1	Number of concluded legal cases regarding corrupt	
	practices brought against the issuer or its employees	
	during the reporting period and the outcomes of the	
	Cases	
B7.2	Description of preventive measures and	
	whistleblowing procedures, how they are	
	implemented and monitored	
B7.3	Description of anti-corruption training provided to	
	directors and employees	
B8 Community Investment		
General Disclosure	Policies on community engagement to understand	Caring for Society, Building
	the needs of the communities where the issuer	a Better World
	operates and to ensure its activities take into	
	consideration the communities' interests	
B8.1	Focus areas of contribution	
B8.2	Resources contributed to the focus area	

Environmental, Social and Governance Report 2023



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