



中国十五冶
15MCC



2024

可持续发展报告 Sustainability Report

中国十五冶金建设集团有限公司
CHINA 15TH METALLURGICAL CONSTRUCTION GROUP CO., LTD.

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关于本报告

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称谓说明

Definitions

本报告中的“中国十五冶”“十五冶”“公司”“本公司”“我们”均指代中国十五冶金建设集团有限公司，“中国有色集团”“有色集团”“集团”均指代中国有色矿业集团有限公司，“钢构分公司”指代中国十五冶金建设集团有限公司钢结构黄石分公司。

"15MCC," "the Company" and "we" all refer to China 15th Metallurgical Construction Group Co., Ltd., "CNMC" and the "Group" refer to China Nonferrous Metal Mining (Group) Co., Ltd., and "Steel Structure Branch" refers to the Huangshi Steel Structure Branch of 15MCC.

时间范围

Reporting Period

本报告时间跨度为 2024 年 1 月 1 日至 12 月 31 日（以下简称“本报告期”），部分内容适当追溯以往年份或有所延伸。

The Report covers the period from January 1, 2024, to December 31, 2024 ("the Reporting Period"), with some content dating back to previous years or extending accordingly.

报告范围

Report Scope

本报告所涵盖范围包括中国十五冶总部及所属单位。

The Report covers the headquarters and affiliated units of 15MCC.

报告周期

Release Cycle

本报告为年度报告，是中国十五冶金建设集团有限公司发布的可持续发展报告（以下简称“本报告”）。

This annual Report is the Sustainability Report ("the Report") issued by 15MCC.

信息来源

Data Source

本报告的数据来源于中国十五冶内部正式文件、原始台账及统计报告，以及经由公司统计、汇总与审核的 ESG 相关信息数据。除另有注明外，本报告货币均以人民币表示。

The data and information presented in the Report have been sourced from official documents, original ledgers, and statistical Reports within 15MCC, as well as ESG related data collected, summarized, and audited by the Company. Unless otherwise noted, the financial data in the Report is denominated in RMB.

编制依据



Reporting Guidelines

- 国务院国资委《关于中央企业履行社会责任的指导意见》《关于国有企业更好履行社会责任的指导意见》
 - 国务院国资委《央企控股上市公司 ESG 专项报告参考指标体系》《央企控股上市公司 ESG 专项报告参考模板》
 - 全球可持续发展标准委员会《可持续发展报告标准》（GRI Standards）
 - 联合国全球契约十项原则
 - 联合国可持续发展目标（SDGs）
 - 中国企业改革与发展研究会《中国企业可持续发展报告指南（CASS-ESG 6.0）一般框架》
 - 中国对外承包工程商会《对外承包工程企业 ESG 管理指引》《中国企业境外可持续基础设施项目指引》
 - 中国国家标准化管理委员会《社会责任报告编写指南》（GB/T36001-2015）
- *Guiding Opinions on Central State-Owned Enterprises Fulfilling Social Responsibilities* and *Guiding Opinions on Enhancing the Fulfillment of Social Responsibilities by State-Owned Enterprises* issued by the State-owned Assets Supervision and Administration Commission of the State Council ("SASAC")
 - *The Reference Indicator System for ESG Special Report of Listed Companies Controlled by Central Enterprises* and *ESG Special Report Reference Template for Listed Companies Controlled by Central Enterprises* issued by the SASAC
 - Global Reporting Initiative *Sustainable Reporting Standards* (GRI Standards)
 - Ten Principles of the United Nations Global Compact (UNGC)
 - United Nations Sustainable Development Goals (SDGs)
 - *General Framework of the Sustainability Reporting Guidelines for Chinese Enterprises (CASS-ESG 6.0)* issued by the Chinese Enterprise Reform and Development Society
 - *Guidelines on ESG Management for Chinese International Contractors and Guidance on Sustainable Infrastructure Projects by Chinese International Contractors* issued by the China International Contractors Association
 - *Guidelines for Preparing Social Responsibility Reports* (GB/T36001-2015) issued by the Standardization Administration of China

报告获取



Report Access

本报告采用电子版形式发布，报告语言为中英文两种，在对两种文本的理解上发生歧义时，请以中文版本为准。您可以通过以下方式阅读或者下载本报告的电子文本：<http://www.cn15mcc.com/index.php/Qywh/esglist.html>。

The Report is published in Simplified Chinese and English versions. In case of any discrepancies, the Simplified Chinese version shall prevail. You can visit the Company's website (<http://www.cn15mcc.com/index.php/Qywh/esglist.html>) to browse or download the Report.

联系方式



Contact Us

如对本报告的内容有疑问，可通过以下联系方式致电或致信本公司：
If you have any questions regarding the content of the Report or the Company's ESG efforts, please feel free to contact us if you have any questions.

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董事长致辞

Letter from the Chairman

2024 年，是中国十五冶全面贯彻落实党的二十大精神、扎实推进高质量发展的关键一年。在有色集团的科学指引与有力支撑下，我们深入践行习近平新时代中国特色社会主义思想，深化落实习近平总书记“2.26”“11.6”以及对集团公司三次重要指示批示精神，牢牢把握“立足有色、跳出有色”发展策略，持续贯彻“做强优势业务、做专特色业务、做精属地业务、做大海外业务、做优投资业务”发展路径，发挥“两个主力军”支撑保障作用，将公司打造为令人自豪、令人向往、令人尊敬的工程企业。推动公司实现更高质量、更高效率、更高水平的可持续发展。

我们坚持党建引领，持续深化党的建设。深入贯彻落实习近平新时代中国特色社会主义思想，组织开展了形式多样的政治理论学习，扎实推进党纪教育和党风廉政建设，构建了覆盖全面、系统规范的党建考核机制；围绕“强总部、精区域、细项目”发展思路，全面优化组织架构，激发了干部员工干事创业的积极性和创造性，党建工作成为推动企业发展的红色引擎。

我们持续健全 ESG 治理体系，正式发布了《ESG 管理手册》，明确了 ESG 工作的顶层设计与实践路径，推动企业管理更加科学、规范、高效；加强全面风险管理，主动识别、评估和管控环境、社会及治理风险，将 ESG 风险管理融入公司日常经营决策和项目实施中，获得新华信用金兰杯“十大”ESG 优秀案例，彰显了公司践行可持续发展的央企担当。

我们大力推进创新驱动战略，科技创新与数字化转型成果显著。围绕矿山、冶炼核心业务，中国十五冶继首次在银珠山多金属矿 TBM 应用成功后，定制非洲首台矿用 TBM——“中国有色二号”，应用于赞比亚中色非矿项目。作为 TBM 技术在矿山工程领域的先行者，公司尝试打破传统工程模式，为矿山建设和生产方式的拓展和变革提供了有力的技术支撑。在铜冶炼领域，通过优化控制系统，大幅提升了工艺的精准性和生产效率，树立了行业新标杆。

The year 2024 marks a pivotal year for 15MCC in fully implementing the guiding principles of the 20th National Congress of the Communist Party of China and advancing high-quality development. Under the strategic guidance and strong support of CNMC, we have deeply embraced Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and earnestly implemented the key instructions and directives of General Secretary Xi Jinping, especially those delivered on February 26, November 6, and in three other important remarks directed at the Group. Anchored in the development strategy of "focus on nonferrous and seek to expand," we have continued to follow the path of strengthening core businesses, specializing in niche sectors, refining localized operations, scaling up international markets, and optimizing our investment portfolio. Leveraging our dual role as a core force and strategic pillar, we are committed to building a proud, aspirational, and respected engineering enterprise, while driving the Company toward higher-quality, more efficient, and more sustainable development.

We have remained committed to strengthening Party leadership and deepening all aspects of Party building. Guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, we organized a wide range of political theory learning activities and advanced disciplinary education and anti-corruption initiatives. A comprehensive and standardized Party building evaluation system has been established, ensuring systematic supervision and accountability. Aligned with the development strategy of "strengthening headquarters, optimizing regional operations, and refining project execution," we have optimized our organizational structure to inspire initiative and creativity across all levels. Party building has become a powerful red engine driving the Company's high-quality development.

We continued to improve our ESG governance system and officially released the *ESG Management Manual*, which defines our top-level ESG framework and implementation roadmap, driving more scientific, standardized, and efficient corporate management. We enhanced our enterprise-wide risk management by proactively identifying, assessing, and controlling environmental, social, and governance risks. ESG risk management has been embedded into our day-to-day operations and project execution processes. Our efforts were recognized with the "Top 10 Outstanding ESG Cases" award by Xinhua Credit's Jinlan Cup, reflecting our strong commitment as a central state-owned enterprise to sustainable development.

We vigorously advanced our innovation-driven strategy, achieving notable progress in technological innovation and digital transformation. Focusing on core businesses such as mining and smelting, 15MCC applied a tunnel boring machine (TBM) in the Yinzhushan polymetallic mine for the first time. Building on this achievement, we developed and deployed "CNMC No.2," the first customized mining TBM in Africa, for the NFCA project in Zambia under CNMC. As a pioneer in applying TBM technology in the mining sector, the Company is challenging conventional engineering models and providing strong technical support for transforming mine construction and production methods. In the field of copper smelting, we optimized our control systems to significantly improve process precision and production efficiency, setting a new benchmark in the industry.

我们始终坚守安全环保底线。持续深入开展安全生产专项整治行动，建立健全安全风险辨识与防控体系，积极推广班组安全管理模式，实现了全年安全生产零死亡事故的重大突破；深入推进绿色低碳发展战略，实施矿山生态修复和绿色工程项目，着力推广清洁生产、节能降耗技术，批量淘汰高耗能高污染装备，开展光储微网矿山应用研究，用绿色能源技术保障矿山稳产降碳，实现企业经济效益与环境效益的和谐统一。

我们全面优化人力资源管理，积极推进职级管理改革，完善薪酬激励机制，加快人才培养和引进步伐，建立双周培训和多项专业技能培训机制，成功实施了薪酬改革试点，有效激发了员工队伍的积极性和创新力；始终关注员工福祉，提升员工工作生活环境，举办丰富的文化体育活动，增强了企业凝聚力和员工归属感。

我们主动履行社会责任，积极推动属地化经营和国际业务拓展。深度参与乡村振兴实践和社区公益行动，广泛开展志愿服务和公益慈善活动，以实际行动推动所在区域的社会经济发展；持续优化供应链管理，与供应商共建合作生态圈，增强供应链韧性，实现共赢发展。

回望 2024，我们以实干担当交出了一份扎实而亮眼的答卷；展望未来，2025 我们将继续秉持“诚信、专业、用心创造价值”的理念，以高质量可持续发展为主线，以更高标准、更严要求，不断提升企业治理能力和核心竞争力。我们坚信，在有色集团的正确领导下，在广大员工的共同努力下，中国十五冶必将乘风破浪，谱写更加辉煌的篇章。

We remain firmly committed to upholding the bottom line of safety and environmental protection. We carried out targeted safety improvement campaigns, established a robust system for identifying and mitigating safety risks, and actively promoted team-based safety management practices. As a result, we achieved a major milestone of zero fatal accidents in production throughout the year. On the environmental dimension, we advanced our green and low-carbon development strategy by implementing ecological restoration initiatives and green engineering projects at mining sites. We promoted cleaner production practices and energy-saving technologies, phased out high-energy-consuming and heavily polluting equipment, and launched research on the application of solar-storage microgrids in mines. By leveraging green energy solutions to support stable production and carbon reduction, we achieved a harmonious balance between economic performance and environmental sustainability.

We comprehensively optimized human resource management by advancing rank-based management reform and enhancing our compensation and incentive mechanisms. We accelerated talent development and recruitment, established bi-weekly training sessions and multiple professional skills training programs, and launched a pilot compensation reform initiative, effectively boosting employee motivation and innovation. We have also remained committed to employee well-being, improving working and living conditions, and organizing a wide range of cultural and sports activities to strengthen team cohesion and foster a strong sense of belonging among our workforce.

We proactively fulfill our social responsibilities by actively promoting localized operations and the expansion of international business. We are deeply involved in rural revitalization initiatives and community welfare programs, widely engaging in volunteer services and philanthropic activities to support the socioeconomic development of the regions where we operate. We continue to optimize supply chain management by fostering a collaborative ecosystem with our suppliers, strengthening supply chain resilience, and achieving mutually beneficial development.

Looking back on 2024, we delivered a solid and remarkable performance through dedication and accountability. Looking ahead to 2025, we will continue to uphold the philosophy of "integrity, professionalism, and creating value wholeheartedly," with high-quality and sustainable development as our guiding principle. We will pursue higher standards and stricter requirements to continuously enhance our corporate governance capabilities and core competitiveness. We firmly believe that, under the strong leadership of CNMC and with the concerted efforts of all employees, 15MCC will ride on the momentum and write an even more brilliant chapter in its journey forward.

梁磊

中国十五冶党委书记、董事长

Liang Lei, Party Secretary and Chairman of 15MCC

关于我们

About Us

公司简介

Company Profile

中国十五冶成立于 1953 年，是新中国为恢复和发展我国冶金工业而设立的工程建设单位，是有色行业最早“走出去”的工程企业，现为中国有色集团的全资公司，湖北省高新技术企业、湖北省企业技术中心，拥有全资、控股、参股和分支机构 30 多家。

Founded in 1953 to restore and develop the Chinese metallurgical industry, 15MCC was the earliest engineering construction enterprise "going global." 15MCC is now a wholly-owned subsidiary of CNMC, a high-tech enterprise in Hubei Province and a corporate technology center in Hubei Province, with over 30 wholly-owned, controlling, shareholding, and branch companies.

公司拥有冶金施工总承包特级、冶金和建筑工程设计双甲级，以及 7 个施工总承包一级、21 个专业承包一级资质，具有对外经济合作经营资格。公司在矿山、冶炼领域具有传统优势，长期服务钢铁、石油、化工、能源、电力、建材、房建、市政、公路等领域，为国内外客户提供设计、咨询、投资、建设、采购、运营等优质服务。

15MCC possesses the special-grade Engineering Procurement Construction (EPC) qualification for metallurgical construction, the Grade A metallurgical engineering design qualification, the Grade A construction engineering design qualification, seven Grade I EPC qualifications, and 21 Grade I specialized contracting qualifications, as well as the economic cooperation and operation qualification with foreign parties. With conventional advantages in mining and smelting, 15MCC has long served the steel, petroleum, chemical, energy power, building materials, housing construction, municipal engineering, and highway industries and provided quality design, consulting, investment, construction, procurement, and operating services to both domestic and foreign customers.



公司在国内外设计、建设了 1000 多个工程项目，拥有专利 100 多项，获得鲁班奖、国家优质工程奖等工程奖项 300 多项，获得全国五一劳动奖状、全国优秀施工企业等企业奖项，并于 2024 年荣登美国《工程新闻记录》（ENR）“全球最大 250 家工程承包商”（Top 250 Global Contractors）榜单，位列第 111 位。

15MCC has designed or built more than 1,000 engineering projects across China and overseas, obtained more than 100 patents, and won more than 300 engineering awards, including the Luban Prize for Construction Projects and the National Quality Project Award. In 2024, it was listed as one of the "Top 250 Global Contractors" by the American Engineering News Record (ENR) and ranked 111th.

站在新的历史起点，作为中国有色建设行业的国家队和主力军，中国十五冶坚持走高质量发展之路，坚持“立足有色、跳出有色”，坚持创新引领，持续为国内外客户提供优质服务，持续为利益相关方创造价值，持续为所在国经济社会发展做出更大贡献。

At this new historical juncture, as the national team and backbone force of China's nonferrous construction industry, 15MCC remains firmly committed to the path of high-quality development. Staying true to the strategy of "focus on nonferrous and seek to expand" and driven by innovation, we continue to deliver premium services to clients at home and abroad, create lasting value for stakeholders, and make greater contributions to the economic and social development of the countries where we operate.



企业文化

Corporate Culture

打造具有核心竞争力的国际化工程公司（铜冶炼、矿山综合服务商）
To build an international engineering company with core competencies

与客户共发展
Shared Development with Clients

与员工共成长
Growth with Employees

与社会共和谐
Harmony with Society



开得动
Hi-efficiency

打得响
Stronger Execution

过得硬
Done Excellently

至诚至信
Integrity

求精求效
Refinement and Efficiency

创高创新
Aim High and Innovation

中国十五冶金建设集团有限公司
China 15th Metallurgical Construction Group Co., Ltd.

办公室（党委办公室） Office (Party Committee Office)		工程研究中心 Engineering Research Center		审计部（审计中心） Audit Department (Audit Center)		数字化中心 Digitalization Center		安全环保部 Department of Safety and Environmental Protection		财务部（财务共享中心） Finance Department (Financial Shared Center)		公司纪委 Company Discipline Inspection Commission		市场开发部 Marketing Development Department			
采购物资中心 Procurement Material Center		商务合约部 Business Contract Department		法律风控部 Legal Risk Control Department		总承包事业部 General Contracting Division		企业发展部 （董事会办公室） Corporate Development Department(Board of Directors Offce)		工程管理部 （技术质量部） Engineering Management Department (Technical Quality Department)		党群工作部 （工会办公室 团委） Party Mass Work Department (Union Office Youth League Committee)		巡查工作办公室 （党风廉政建设工作办公室） Inspection Office (Office of Party Conduct and Clean Governance Construction)		人力资源部 （党委组织部） Human Resources Department (Party Committee Organization Department)	

所属单位
Affiliated unit

- 第一工程公司
First Engineering Company

江苏分公司
Jiangsu Branch
- 第二工程分公司
Second Engineering Branch

金采矿业分公司
Jincai Mining Branch
- 第三工程公司
Third Engineering Company

白俄罗斯代表处
Belarus Representative Office
- 第七分公司
Seventh Branch Company

新疆分公司
Xinjiang Branch
- 南方分公司
Southern Branch

成都分公司
Chengdu Branch
- 华东分公司
East China Branch

沈阳分公司
shenyang branch
- 武汉分公司
wuhan branch

钢结构黄石分公司
Huangshi Branch of Steel Structure
- 北京分公司
Beijing Branch

台州分公司
Taizhou Branch
- 宁夏分公司
Ningxia Branch
- 阳新弘盛铜业公司
Yangxin Hongsheng Copper Company
- 黄石市十五冶勘察设计工程有限公司
Huangshi 15MCC Survey and Design Engineering Co., Ltd.
- 河池十五冶金山建设工程有限公司
Hechi 15MCC Construction and Engineering Co., Ltd.

- 十五冶对外工程有限公司（海外业务部）
15MCC Overseas Engineering Co., Ltd.

黄石市金管物业服务有限公司
Huangshi Jinguan Property Service Co., Ltd.
- 中国十五冶金建设集团厄瓜多尔有限公司
15MCC Ecuador Co., Ltd.

黄石市金通物资设备有限公司
Huangshi Jintong Material and Equipment Co., Ltd.
- 十五冶白俄罗斯建筑贸易有限公司
15MCC Belarusian Construction and Trading Co., Ltd.

武汉十五冶置业有限公司
Wuhan 15MCC Real Estate Co., Ltd.
- 科万古谱有限责任公司
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Shenyang Nonferrous Metallurgy Design and Research Institute Co., Ltd. (Design Business Department)
- 十五冶科特迪瓦建筑贸易有限公司
15MCC Ivory Coast Construction Trading Co., Ltd.

中色发展投资有限公司
CNMC Development Investment Co., Ltd.
- 十五冶非洲建筑贸易有限公司（赞比亚区域总部）
15MCC Africa Construction Trading Co., Ltd. (Zambia Regional Headquarters)

山东中色建设投资有限公司
Shandong CNMC Construction and Investment Co., Ltd.
- 湖北中色矿山工程技术有限公司
Hubei CNMC Mining Engineering Technology Co., Ltd.

四川中色建设投资有限公司
Sichuan CNMC Conctruction and Invesment Co., Ltd.
- 鸿基投资管理有限公司
Hongji Investment Management Co., Ltd.

十五冶第二工程有限公司
15MCC 2nd Engineering Co., Ltd.
- 黄石新港工程建设有限公司
Huangshi Xingang Engineering Construction Co., Ltd.

十五冶建筑工程（印尼）有限公司
15MCC Construction and Engineering (Indonesia) Co., Ltd.

企业大事记

Development History

1953-1964 启航长沙

Setting Sail from Changsha

自力更生，艰苦创业

Self-reliance, Arduous Entrepreneurship

1953 年，公司初创于湖南长沙。

In 1953, the Company was established in Changsha, Hunan.

1958 年 10 月，公司首次跨出国门，援建越南古定铬铁矿。

In October 1958, the Company went abroad for the first time to assist in the construction of Co Dinh chromite mine in Vietnam.

1963 年 9 月，公司承建的黄沙坪铅锌矿井巷工程创全国冶金井巷系统斜井施工新纪录。

In September 1963, the shaft project of Huangshaping lead-zinc mine constructed by the company set a new record for the construction of inclined shafts in the national shaft system.

1955 年 5 月，公司建成了中国第一座 250T/D 钨选厂——湖南瑶岗钨矿。

In May 1955, the Company built China's first 250T/D tungsten processing plant-Hunan Yaogang Tungsten Mine.

1958 年 4 月，公司建成了我国第一家硬质合金厂——株洲硬质合金厂（601 厂）。

In April 1958, the Company built China's first cemented carbide factory-Zhuzhou cemented carbide factory (Factory 601).

1965-1982 挥师黄石

Marching to Huangshi

勇当使命，为国争光

Bravely Undertake the Mission, Win Glory for the Motherland

1965 年 10 月 5 日，公司搬迁至湖北黄石。

On 5 October 1965, the Company's headquarters were relocated to Huangshi, Hubei.

1978 年 5 月，公司承建从国外引进的第一座大型现代化冶炼厂——江西贵溪冶炼厂工程。

In May 1978, the Company undertook the first large-scale modern smelting plant by introducing foreign technology-Jiangxi Guixi Smelting Plant.

1978 年 10 月，公司建成拉开国家钢铁生产现代化序幕的标志性工程——武钢一米七轧机连铸车间工程。

In October 1978, the Company completed the landmark project that opened the prelude to the modernization of national iron and steel production - Wuhan Iron and Steel 1.7 rolling mill continuous casting workshop.

1981 年 12 月，公司在鄂州泽林新港河采用单拱管整体架设新工艺，建成了当时国内跨度（80 米跨）最大的一座拱管桥。

In December 1981, the Company built an arch pipe bridge with the largest span (80 meters span) in China at that time by adopting a new technology of single arch pipe overall erection in Zelin Xingang River in Ezhou.

1983-1999 扬名四方

Gaining Fame Far and Wide

锐利改革，蓄力筑基

Eagerly Reforming, Accumulating Strength for Foundation Building

1991 年 10 月，公司建成了我国第一套引进外国先进工艺的厂房——贵溪化肥厂。

In October 1991, the Company built the Guixi fertilizer plant, the first plant in China to import advanced international technology.

1994 年 12 月，公司被评为中国建筑业 500 强、全国最大经营规模 110 名、全国房屋建筑 65 名。

In December 1994, the Company was ranked as one of the Top 500 in China's construction industry, 110th in the country's largest business scale, and 65th in the country's housing construction.

1999 年 5 月，公司承建的安徽铜陵水泥厂 4000T/D 生产线的生料库，采用无井架液压滑模工艺，创国内同类最大圆形料库施工企业新纪录。

In May 1999, the Company constructed the raw material storage of 4000T/D production line of Anhui Tongling cement plant, adopting derrick-free hydraulic slide molding process, which create a new record for the construction enterprises of largest circular storage.

1999 年 11 月，公司承建的广州内环路工程全线贯通。工程荣获“五羊杯”、国家优质工程银质奖。

In November 1999, the entire inner ring road project in Guangzhou constructed by the Company was completed and won the "Five Sheep Cup" and the National Quality Engineering Silver Award.

2000-2011 加入有色

Join CNMC

科学发展，创新图强

Scientific Development, Innovating for Strength

2000 年 8 月 29 日，公司交由中国有色集团前身——中国有色矿业建设集团有限公司管理。On 29th August 2000, the Company was managed by the predecessor of China Nonferrous Group-China Nonferrous Metal Mining (Group) Co., Ltd.

2003 年 8 月，公司制造安装的国内冶炼行业首台倾动炉——江西贵溪冶炼厂杂铜车间倾动炉正式投产。

In August 2003, the first tilting furnace in the domestic smelting industry manufactured and installed by the Company, the tilting furnace of Jiangxi Guixi smelter miscellaneous copper workshop, was formally put into production.

2004 年 8 月，公司制作安装的长 48 米，宽 4.5 米的“中国第一梁”——江西新余钢厂厚板工程三标段行车梁完成吊装，创国内工业厂房结构跨度新纪录。

In August 2004, the "China's First Beam" with a length of 48 meters and a width of 4.5 meters, which was manufactured and installed by the Company, was hoisted and installed at the third bid section of Jiangxi Xinyu steel plant thick plate project, creating a new record for the span of a domestic industrial plant structure.

2005 年 8 月，公司承建的蒙古国敖包锌矿工程竣工投产，蒙古国总统恩赫巴雅尔出席竣工投产典礼。工程荣获中国建设工程鲁班奖（境外工程）。

In August 2005, the Ovoo Zinc Mining Project in Mongolia constructed by the Company was completed and put into production. The President of Mongolia, Enkhbayar, attended the ceremony of completion and production. The project was awarded the Luban Prize for construction projects (Overseas) in China.

2006 年 11 月，公司承建的江苏淮钢集团 500MM 圆坯连铸机单体试车成功，改写了亚洲钢铁企业不能生产 500MM 直径圆坯钢的历史。

In November 2006, the test run of 500mm continuous casting machine constructed by the company for Jiangsu Huaigang Group was successful, which rewrote the history that Asian steel enterprises could not produce 500mm diameter round billet steel.

2007 年 10 月，公司安装的山东阳谷祥光铜业有限公司 40 万吨 / 年铜冶炼工程 630 吨阳极炉，创最大阳极炉安装世界新纪录。

In October 2007, the 630-ton anode furnace of 400,000 tons/year copper refining project of Shandong Yanggu Xiangguang Copper Co., Ltd. installed by the Company created a new world record for the largest anode furnace installation.

2009 年 5 月，公司安装的首钢京唐钢铁联合有限责任公司 260 吨 / 小时干熄焦装置创最大的干熄焦装置安装世界新纪录。

In May 2009, Shougang Jingtang Iron & Steel Co., Ltd. installed a 260ton/hour dry quenching coke plant, creating a new world record for the largest dry quenching coke plant installation.

2011 年 3 月，公司承建的缅甸达贡山镍矿举行了隆重的投产仪式。工程荣获中国建设工程鲁班奖(境外工程)。

In March 2011, the nickel mine in Dagon Hill, Myanmar, constructed by the Company, held a grand commissioning ceremony. The project was awarded the Luban Prize for China Construction Projects (Overseas).

2012-2024 定鼎武汉

Establishing in Wuhan

不忘初心，砥砺前行

Never Forget the Original Aspiration, Forget Ahead with Perseverance

2012 年 11 月 19 日，公司总部搬迁至湖北武汉。形成武汉、黄石双总部格局。2016 年 6 月，公司成为湖北省第一家获得对外援助成套项目总承包企业资格企业。

On 19th November 2012, the Company's headquarters moved to Wuhan, Hubei, forming a Dual-Headquarters Structure in Wuhan and Huangshi.

2018 年 8 月，公司承建的非洲首座垃圾焚烧发电厂——埃塞莱比垃圾电厂正式投入运营。

In August 2018, the first waste incineration power plant in Africa constructed by the Company, Essebsi waste power plant, was officially put into operation.

2018 年 8 月，公司承建的非洲首座数字化矿山——赞比亚谦比希铜矿东南矿体项目正式投产。

In August 2018, the first digital mine in Africa constructed by the Company-the southeast ore body project of Zambia's Chambishi copper mine was officially put into production.

2022 年 10 月，公司参股、EPC 总承包的采用世界最先进“双闪”工艺项目——阳新弘盛 40 万吨高纯阴极铜清洁生产项目建成投产。

In October 2022, the Company's joint venture and EPC-Yangx-in Hongsheng 400,000 tons of high-purity cathode copper clean production project using the world's most advanced "double flash" process was completed and put into operation.

2023 年 3 月，公司中标当前世界规模最大的单套“双闪”工艺铜冶炼厂——铜陵有色绿色智能铜基新材料项目熔炼区域建筑安装工程。

In March 2023, the Company won the tender for the construction and installation of the smelting area of Tongling Nonferrous Metals Green Intelligent Copper-based New Materials Project, the world's largest single set of "double flash" process copper refinery.

2024 面向未来

Facing the Future

踔厉奋发，笃行不怠

Strive with Vigor, Persevere without Slack

中国十五冶作为国内首家在有色金属矿山工程中应用矿用 TBM 技术的工程企业，成功将首台地下有色金属矿用 TBM 设备投入江西银珠山项目掘进施工，标志着该技术在有色金属矿山领域的正式落地应用，并于次年 1 月底顺利实现 3.1 公里巷道的全线贯通。

As the first engineering Company in China to apply tunnel boring machine (TBM) technology in nonferrous metal mining projects, 15MCC deployed the country's first underground TBM for nonferrous metal mining at the Yinzhushan Project in Jiangxi Province. This milestone marked the official adoption of TBM technology in the nonferrous mining sector. By the end of January the following year, the 3.1-kilometer tunnel was successfully completed, achieving full breakthrough.

时代新征程，中国十五冶将牢记央企使命，锚定高质量发展目标，积极投身中国式现代化建设，朝着打造具有核心竞争力的国际化工程公司愿景大步迈进！

In the new journey of the times, 15MCC will keep in mind the mission of central enterprises, anchor high-quality development goals, actively participate in the construction of Chinese path to modernization, and make great strides towards the vision of building an international engineering company with core competitiveness!



年度荣誉
Honors

荣获

中华全国总工会表彰

Awarded by the All-China Federation
of Trade Unions

中华全国总工会文件

总工发〔2024〕15号

中华全国总工会关于表彰全国模范职工之家
全国模范职工小家 全国优秀工会工作者的决定
(2024年3月25日)

近年来，各基层工会组织以习近平新时代中国特色社会主义思想为指导，深入学习贯彻党的二十大精神，坚持全心全意依靠工人阶级的方针，认真履行维护职工合法权益、竭诚服务职工群众的基本职责，在推动企业高质量发展、构建和谐劳动关系、促进职工生活品质提升等方面做出了积极贡献。为表彰先进，树立典型，特决定授予以下单位和个人荣誉称号。

荣获

中国钢结构金奖

Won the China Steel
Structure Gold Award

荣誉证书

中国十五冶金建设集团有限公司
你单位承建的龙穴厂区内尾矿库及分选
尾矿库车间工程（尾包、施工）荣获第十六
届（第一组）中国钢结构金奖工程，特发此
证。

二〇二四年六月

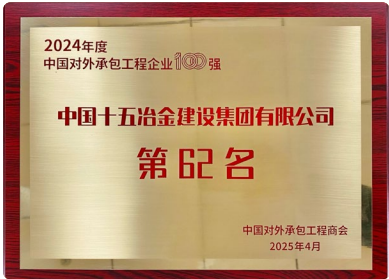
荣获第三届新华信用金兰杯
“十大” ESG 优秀案例

Won the Top Ten ESG Excellent
Cases of the 3rd Xinhua Credit
Jinlan Cup



荣登“中国对外承包工程企业 100 强”
第 62 位

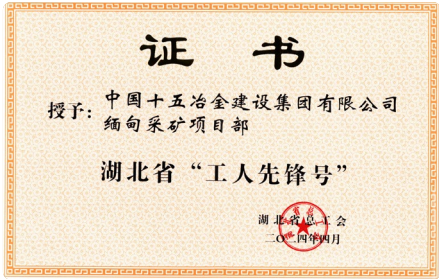
Ranked 62nd on the list of "Top 100 Chinese
Overseas Contractors"



荣获

湖北省总工会“工人先锋号”

Won the "Worker Pioneer" award from the
Hubei Provincial Federation of Trade Unions



荣登《工程新闻记录》（ENR）发布的
“全球最大 250 家国际承包商”榜单，
位列第 111 位

Ranked 111th on the list of "Top 250 Global Contractors" by the
American Engineering News Record (ENR)



获评

“AAA 级信用企业”

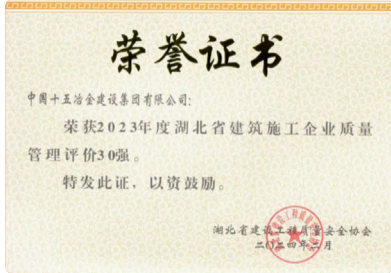
Honored as an "AAA-level
Credit Enterprise"



荣获

湖北省建筑施工企业质量管理 30 强

Ranked among the top 30 in Quality Management
among Hubei construction enterprises



获评

质量管理优秀企业

Honored as an Excellent Enterprise in
Quality Management



可持续发展管理 Sustainable Development Management

在公司高质量发展战略纵深推进的关键阶段，中国十五冶坚持可持续发展战略导向，全面对标 ESG 管理体系要求，持续健全可持续发展管理机制，完善政策体系与组织保障。公司强化科技创新引领，推动绿色低碳转型，深化全球履责与合作共赢，提升治理韧性 with 战略协同能力，奋力构建面向未来的可持续发展竞争力。

At this critical stage of advancing its high-quality development strategy, 15MCC remains firmly committed to a sustainability-driven approach. The Company is aligning fully with ESG management standards, continuously strengthening its sustainability governance framework and enhancing its policy system and organizational support. By reinforcing innovation-led growth, accelerating the green and low-carbon transition, deepening global responsibility and win-win cooperation, and enhancing governance resilience and strategic coordination, 15MCC is striving to build future-oriented sustainability competitiveness.

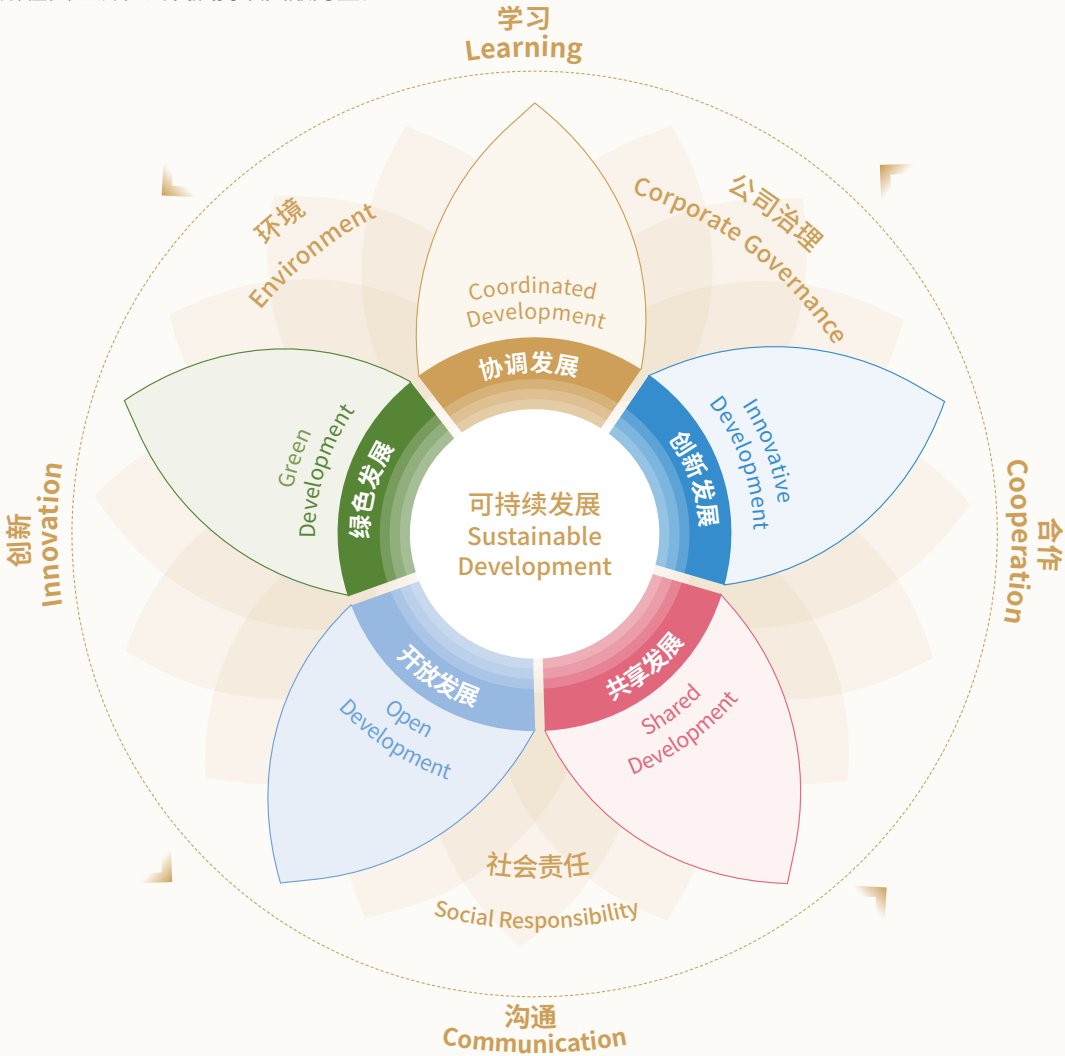
可持续战略目标 Sustainable Strategic Goals

中国十五冶秉承“至诚致信、求精求效、创高创新”的核心价值观，突出高质量可持续发展主题，坚持完整、准确、全面贯彻新发展理念，注重生态环境保护，积极履行社会责任，不断提高治理水平，稳步推动质量变革、效率变革，努力实现创新、协调、绿色、开放、共享发展。

作为有色行业最早“走出去”的工程企业，弘扬“开得起、打得响、过得硬”的企业精神，牢记“与客户共发展，与员工共成长，与社会共和谐”的企业使命，长期深耕于工程建设领域，在稳步推进主营业务发展的同时，坚持履行企业社会责任，并为所在国经济社会发展持续贡献力量。

15MCC upholds the core values of "integrity, refinement, efficiency, aiming high and innovation," with a strong focus on high-quality and sustainable development. The Company remains committed to fully, accurately, and comprehensively implementing the new development philosophy, placing emphasis on ecological and environmental protection, actively fulfilling its social responsibilities, and continuously enhancing its governance capabilities. By steadily advancing transformations in quality and efficiency, 15MCC strives to achieve innovation-driven, well-coordinated, green, open, and shared development.

As one of the earliest engineering enterprises in the non-ferrous industry to go global, 15MCC carries forward the corporate spirit of "high efficiency, stronger execution, and done excellently." The Company remains true to its mission of "shared development with clients, growth with employees, and harmony with society," maintaining a long-term commitment to the engineering and construction sector. While steadily advancing its core business, 15MCC also upholds its corporate social responsibilities, consistently contributing to the economic and social development of countries where we operate.



健全 ESG 治理体系

Improve the ESG Governance System

卓越的可持续发展管理水平是企业实现宏伟发展目标的关键助推剂。中国十五冶以认真、务实的态度不断健全 ESG 管理体系与管理制度，坚持走绿色高质量可持续发展的道路，致力于打造具有核心竞争力的国际化工程公司。

Excellence in Sustainable Development Management is a key driver for achieving ambitious corporate goals. With a diligent and pragmatic approach, 15MCC continuously strengthens its ESG management systems and frameworks, firmly pursuing a path of green, high-quality, and sustainable development. The Company is committed to building a globally competitive engineering enterprise with strong core capabilities.

为了确保公司 ESG 管理工作的透明、规范和高效，促进公司 ESG 绩效的持续提升，中国十五冶以董事会作为 ESG 管理工作管理和监督的最高机构，并在经营层面组建由董事长担任领导小组组长，分管领导担任副组长，公司各部门主任担任组员的 ESG 领导小组和由分管部门牵头，公司各部门的联络人担任组员的 ESG 工作小组。

To ensure transparency, standardization, and efficiency in ESG management and to drive continuous improvement in ESG performance, 15MCC has established a robust governance structure. The Board of Directors serves as the highest body for ESG supervision and decision-making. At the executive level, an ESG Leadership Group has been formed, led by the Chairman, with responsible executives serving as deputy leaders and department heads as members. Additionally, an ESG Working Group, led by the designated department and composed of ESG liaisons from each department, supports the implementation of ESG initiatives across the Company.



ESG 管治架构
ESG Governance Structure



本报告期内，我们正式发布了《ESG 管理手册》，该手册作为 ESG 工作的“指南针”，全面而系统地阐述了公司 ESG 治理的顶层设计与实施路径。会议强调，管理手册是指导 ESG 开展的规范文件，要以“全集合思维、漏斗模型式”的形式融入到生产经营各个环节，为公司打造核心竞争力、推动高质量发展注入新动能。

During the Reporting Period, we officially released the *ESG Management Manual*, which serves as a "compass" for our ESG efforts. The manual provides a comprehensive and systematic overview of the Company's ESG governance framework and implementation roadmap. At the launch meeting, it was emphasized that the manual is a foundational document guiding ESG practices. It should be integrated into all aspects of operations using a "holistic mindset and funnel model" approach, injecting new momentum into building core competitiveness and advancing high-quality development.



ESG 管理手册发布会
Press conference on the release of the *ESG Management Manual*

利益相关方沟通

Stakeholder Engagement

中国十五冶高度重视与内外部利益相关方的沟通交流。通过建立多样畅通的沟通机制和沟通渠道，我们深入了解利益相关方的诉求和期望，以此明确公司的 ESG 战略及 ESG 实质性议题，不断提升 ESG 管理能力和提高 ESG 工作绩效，实现与利益相关方的共同发展。

15MCC places great importance on communication with stakeholders. By establishing diverse and open communication mechanisms and channels, we deeply understand the demands and expectations of stakeholders, clarify our ESG strategy and material ESG issues, and continuously improve ESG management and performance, achieving collaborative development with stakeholders.

利益相关方名称 Stakeholders	 董事会及公司管理层 Board of Directors and the Company's management	 中国有色集团 CNMC	 员工 Employees	 供应商 Suppliers	 客户 Customers	 政府及监管机构 Government and regulatory authorities	 合作伙伴 Partners	 媒体 Media	 社会和公众 Social and the public
利益相关方诉求和期望 Demands and expectations	公司治理 Corporate governance 权益保护 Protection of rights and interests 收益汇报 Revenue reporting	社会经济效益 Social, economic and environmental benefits 反贪污反腐败 Anti-graft and anti-corruption	员工健康与福祉 Employee health and wellbeing 职业发展和培训 Career development and training 安全的工作环境 Safe working environment 合理的薪酬体系 Equitable compensation system 民主沟通 Democratic communication	供应链管理 Supply chain management 公开透明 Openness and transparency 诚实守信 Honesty and integrity	质量安全 Quality and safety 优质服务 Good service 创新发展 Innovation-driven development	遵守环保法规 Comply with environmental regulations 减少污染排放 Reduce pollutant discharge 保护生态环境 Preserve the ecological environment	长期稳定关系 Long-term and stable partnership 公平竞争 Fair competition	信息公开、透明 Open and transparent information	社会公益 Social welfare 乡村振兴 Rural revitalization 社区参与 Community engagement
沟通渠道和机制 Communication mechanisms and channels	董事会 Board meetings 日常沟通 Daily communication 管理层定期会议 Regular management meetings	工作汇报 Work debrief 报送报表 Reporting statements 公开信息披露 Disclosure information	职工会议 Staff meetings 工会活动与会议 Labor union activities and meetings 员工培训与专业培训 Employee training and professional training 日常沟通 Daily communication	满意度调查 Supplier evaluation system 公开信息披露 Disclosure information	客户满意度调查 Customer satisfaction survey 客户热线 Customer service hotline 日常沟通 Daily communication 官方媒体平台 Official media platform	定期评估报告上报 Periodic assessment report submission 政府参观和交流 Government visits and exchanges	参与行业协会 Join industry associations 公开信息披露 Disclosure information 定期沟通 Regular communication	官方媒体平台 Official media platform 公开信息披露 Information disclosure	社区交流 Community communication 社区支持活动 Community support activities

实质性议题识别
Identification of Material Topics

中国十五冶遵循相关性、包容性和可比性原则，参考国内外主流可持续发展报告披露指引，征求公司内部利益相关方意见，对标国内外优秀同行企业实质性议题的披露情况，持续开展实质性议题分析工作。本报告期内，公司通过对 ESG 议题进行识别、评估与更新，我们确认了总计 22 项 ESG 实质性议题，其中包括环境议题 5 项、社会议题 12 项、管治议题 5 项。

为了维持良好的 ESG 议题的动态性和发展性，公司将定期开展议题的回顾和更新工作。这一过程不仅考虑行业动态和最佳实践，还将反映公司战略的演进和市场环境的变化。

15MCC adheres to the principles of relevance, inclusiveness, and comparability in its ESG disclosures. Drawing on leading domestic and international sustainability reporting frameworks, the Company solicits feedback from internal and external stakeholders and benchmarks against best practices of peer companies at home and abroad to continuously refine its materiality analysis. During the Reporting Period, 15MCC identified, evaluated, and updated its ESG topics, ultimately confirming a total of 22 material ESG topics, including 5 environmental topics, 12 social topics, and 5 governance topics.

To ensure the continued relevance and evolution of its ESG topics, 15MCC conducts regular reviews and updates. This process not only incorporates industry trends and best practices but also reflects the Company's strategic developments and changes in the market environment.



ESG 实质性议题评估流程
The assessment process of ESG material topics

ESG 实质性议题
List of ESG Material Topics



专题聚焦一
Topic 1

深化党建引领
Deepen Party Leadership

高质量党建引领保障高质量发展，中国十五冶坚持以习近平新时代中国特色社会主义思想为指导，坚决拥护“两个确立”、增强“四个意识”、坚定“四个自信”、做到“两个维护”，全面贯彻新时代党的建设总要求。

High-quality Party building provides a strong foundation for high-quality development. Guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, 15MCC firmly upholds the "Two Affirmations," strengthens the "Four Consciousnesses," reinforces the "Four-sphere Confidence," and ensures the "Two Upholds." The Company fully implements the general requirements for Party building in the new era.

优化组织架构
Optimize Organizational Structure

公司不断强化基层组织体系建设，构建起上下贯通、运行高效的组织架构体系，推动党建工作全覆盖、深融合。总部党委统筹指导，所属单位党委（党总支）协同联动，党支部深耕一线、扎根基层，通过调整优化设置、健全党组织体系，持续夯实党的组织根基，同时加强海外党建工作，推动党组织向驻外项目、海外单位延伸覆盖。

15MCC continues to strengthen its grassroots organizational system by building a streamlined, efficient structure that ensures full coverage and deep integration of Party building across all levels. The headquarters Party Committee provides overall coordination and guidance, while affiliated units' Party Committees (or General Party Branches) work in synergy. Frontline Party branches are rooted in operational units, with continuous efforts to optimize their structure and improve organizational systems, thereby consolidating the foundation of Party leadership. Meanwhile, overseas Party building is also being reinforced, extending Party organization coverage to overseas projects and entities.

公司总部机关设党委

1 个

15MCC's headquarters maintained one Party Committee

下辖党支部

19 个

Overseeing 19 subordinate Party branches

所属单位设党委

10 个

The affiliated units established 10 Party Committees

党总支

6 个

Established 6 General Party Branches

共成立党支部

105 个

With a total of 105 Party branches formed

全公司在册党员

1,192 人，实现党的组织

对国内外所属单位、各项目全面覆盖
The Company had 1,192 registered Party members in total. Full organizational Party coverage was achieved across all domestic and overseas affiliated units and project sites

公司党委全年召开会议

36 次，进一步强化对基层党建工作的顶层统筹

Throughout the year, the Party Committee convened 36 meetings, further strengthening top-level coordination and guidance for grassroots Party building efforts



压实党建责任 Strengthen Party Building Responsibilities

公司持续健全党建责任体系，推动党建工作制度化、规范化。2024 年，制定多项制度文件，明确重点任务与考核指标，召开党建会议、签订责任书、发布任务清单，强化工作部署与闭环管理。党建考核结果纳入干部综合评价，与绩效挂钩，全面落实“同谋划、同部署、同落实”要求。公司党委严格执行相关议事规则和决策制度，进一步压实党建责任，提升基层党组织政治功能和履职能力。

15MCC has continued to strengthen its Party-building accountability system, promoting the institutionalization and standardization of Party-related work. In 2024, the Company issued multiple policy documents that clarified key tasks and assessment indicators. It convened Party-building meetings, signed responsibility agreements, and released task lists to reinforce implementation and closed-loop management. Party-building performance results were incorporated into the overall evaluation of management personnel and linked to performance appraisals, fully enforcing the principle of "joint planning, joint deployment, and joint implementation." The Company Party Committee strictly adhered to established decision-making procedures and governance rules, further reinforcing accountability and enhancing the political function and execution capacity of grassroots Party organizations.

此外，公司党委严格落实《党委会议事规则（2024 年修订）》《“三重一大”决策制度实施办法（2024 年修订）》等制度文件要求，进一步规范党委在企业治理中的议事决策程序，压紧压实党建工作主体责任，增强基层党组织履职能力和政治功能。

In addition, the Company's Party Committee strictly implemented institutional documents such as the *Rules of Procedure for Party Committee Meetings (2024 Revision)* and the *Implementation Measures for the Decision-Making System on Major Events, Appointments and Removal of Important Officials, Important Project Arrangements, and Use of Large Amounts of Funds (2024 Revision)*. These efforts further standardized the Party Committee's deliberation and decision-making procedures within corporate governance, reinforced the primary responsibility for Party-building work, and enhanced the capacity and political function of grassroots Party organizations in fulfilling their duties.



研究制定深化落实习近平总书记对集团公司三次重要指示批示精神行动方案，结合公司实际制定工作内容 19 项，推进 61 条具体措施落地见效。

Developed an action plan to deepen the implementation of General Secretary Xi Jinping's three important instructions to the Group, formulating 19 work items tailored to the Company's actual conditions and promoting the effective implementation of 61 specific measures.



修订“第一议题”制度，严格制度落实，党委会“第一议题”学习传达习近平总书记最新重要讲话和指示批示精神 35 次共 144 项内容。

Revised the top-of-the-agenda system to ensure strict compliance; the Party Committee held 35 sessions focusing on the top of the agenda, studying and conveying 144 key points from General Secretary Xi Jinping's latest important speeches and instructions.

深化思想引领 Enhance Ideological Guidance

公司党委坚持以习近平新时代中国特色社会主义思想为指导，持续强化理论武装，深入推进党纪学习教育与思想政治建设，全面贯彻落实党的二十大和历次全会精神。严格落实“第一议题”制度，推动党的创新理论在各级组织深学细悟、入脑入心、走深走实。

The Company Party Committee adheres to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era as its guiding principle, continuously strengthening theoretical education, deeply advancing Party discipline learning and ideological-political development, and fully implementing the spirit of the 20th National Congress and successive plenary sessions. It strictly enforces the top-of-the-agenda system, promoting the thorough and profound study, internalization, and practical application of the Party's innovative theories across all organizational levels.



公司党委召开学习贯彻习近平新时代中国特色社会主义思想主题教育总结会议

The Company Party Committee convened a summary meeting on the thematic education for studying and implementing Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era

组织党委中心组理论学习

46 次

The Party Committee organized 46 theoretical study sessions for the Party central group

基层党组织开展党纪学习教育

223 次

While grassroots Party organizations conducted 223 sessions of Party discipline education

讲授纪律党课

67 次

Delivered 67 discipline-focused Party lectures

通过开展读书班、“三会一课”、主题党日等形式多样的教育活动，公司不断强化党员干部的理论素养与政治意识，增强政治认同、思想认同和行动认同，推动党性教育向制度化、常态化、全覆盖迈进。

Through diverse educational activities such as reading classes, the general meetings of Party members, Party branch committee meetings, Party group meetings, Party lectures, and themed Party days, the Company continuously strengthens the theoretical literacy and political awareness of Party members and cadres. This enhances their political, ideological, and behavioral alignment, advancing Party education toward institutionalization, normalization, and comprehensive coverage.

组织党委书记讲授党课

17 次

The Party Committee Secretary delivered 17 Party lectures

召开警示教育

27 场

Held 27 cautionary education sessions

发展新党员

30 人

Recruited 30 new Party members

案例 Case

开展党纪学习教育专题读书班
A Special Reading Class on Party-discipline Learning and Education

为深入贯彻落实党中央关于党纪学习教育的部署要求，2024 年 5 月，中国十五冶党委举办党纪学习教育专题读书班，组织领导班子成员原原本本学习新修订的《中国共产党纪律处分条例》，并开展集中研讨。会议由党委书记主持，总经理及多位班子成员领学发言，围绕“六项纪律”深化理解认知。此次读书班紧扣高质量发展主线，推动学习成果转化为履职尽责实效，强化“学纪、知纪、明纪、守纪”政治自觉，为完成全年任务目标提供坚强纪律保障。

To thoroughly implement the central government's requirements on Party discipline education, in May 2024, the 15MCC Party Committee organized a special study class focused on Party discipline education. Leadership team members conducted an in-depth, original-text study of the newly revised *Regulation of the Communist Party of China on Disciplinary Actions*, followed by focused group discussions. The sessions were chaired by the Party Committee Secretary, with the General Manager and several leadership team members leading study and speeches, deepening understanding of the "Six Disciplines." This study class closely aligned with the theme of high-quality development, promoting the transformation of learning outcomes into effective duties and responsibilities, and strengthening political consciousness to study discipline, know discipline, understand discipline, and observe discipline, thereby providing solid disciplinary assurance for completing annual goals.



党纪学习教育专题读书班
Special reading class on Party-discipline learning and education

在宣传引导方面，公司充分发挥“两网一报一微”等宣传阵地作用，构建起层次清晰、广泛覆盖的宣传体系，营造崇德尚廉、奋发有为的浓厚氛围，有效扩大党建影响力，持续提升企业品牌形象。

In terms of publicity, the Company fully leverages Weibo, WeChat, and news apps to build a clear and widely covering publicity framework. This fosters a strong atmosphere of integrity and proactive spirit, effectively expanding the influence of Party-building efforts and continuously enhancing the corporate brand image.

党建赋能促发展
Empower Development through Party Building

本报告期内 During the Reporting Period

公司推送党建专题微信	出版《十五冶报》	刊发省部级党建宣传报道
220 余期	24 期	54 篇
The Company released over 220 issues of Party-building themed WeChat posts	Published 24 issues of the 15MCC News	Issued 54 provincial- and ministerial-level Party-building publicity articles

公司深入推进“党建+经营”“党建+管理”“党建+安全”“党建+人才”“党建+环保”等实践，打造党建服务生产经营的有力抓手。基层党支部积极践行“行动支部工作法”，推动支部“三转”机制落地，提升支部参与中心工作的能力和实效。海外项目持续落实“五个一”行动，海外“红色引擎”作用有效发挥，党建力量成为公司“走出去”的坚强后盾。

The Company has deeply advanced the integration of Party-building with operations, management, safety, talent, and environmental protection, creating a strong mechanism for Party-building to support production and business activities. Grassroots Party branches actively implement the "Action Branch Work Method," promoting the "Three Transformations" mechanism to improve branches' ability and effectiveness in participating in core work. Overseas projects have continuously implemented the "Five Ones" initiative, effectively leveraging the role of Party building in overseas operations. Party building efforts have become a strong backing for the Company's international expansion.



2024 年 7 月 - 党建系统培训班
Party building systematic training class in July 2024

专题聚焦二
Topic 2

科技创新
成果
Achievements in R&D
Innovation

中国十五冶始终将科技创新视为驱动企业高质量发展的核心引擎，我们以科技为帆，推动行业迈向数字化的未来，用科技的力量书写企业发展与社会责任相融合的篇章，为时代的进步贡献价值与力量。

15MCC has always regarded technological innovation as the core engine driving its high-quality development. With technology as our sail, we are steering the industry toward a digital future, writing a new chapter where enterprise growth and social responsibility go hand in hand. Through the power of innovation, we are making meaningful contributions to progress in this new era.

研究管理体系
Research Management System

我们持续完善优化研发创新相关管理体系及办法，建立了《“十四五”技术创新规划》《创新工作室管理办法》《技术进步管理办法》等研发与创新管理制度化体系。本报告期内，公司发布了《工程研究中心管理办法》《工程研究中心专业室管理办法》《科技创新奖励管理办法》，明确了各项科研成果的奖励标准，以进一步激发员工的创新积极性，提高企业的创新能力和核心竞争力。

We have continuously refined and optimized our R&D and innovation management systems, establishing a structured framework that includes the 14th Five-Year Plan for Technological Innovation, Innovation Studio Management Measures, and Technical Advancement Management Measures. During the Reporting Period, 15MCC released the Engineering Research Center Management Measures, Specialized Division Management Measures for Engineering Research Centers, and the Science and Technology Innovation Incentive Measures, clearly defining reward standards for various scientific research achievements. These efforts aim to further stimulate employee innovation, enhance the Company's innovation capacity, and strengthen its core competitiveness.



“十四五” 技术创新目标
Technological innovation goals for the "14th Five-Year Plan"

2024 年 In 2024

公司持续优化研发资源配置

The Company continued to optimize the allocation of R&D resources

总研发投入

2.45 亿元

With total R&D investment reaching RMB 245 million

占营业收入的

3.02%，保持较强的创新投入力度

Accounting for 3.02% of operating revenue, demonstrating a strong commitment to innovation

在专利管理方面，公司制定了《技术进步管理办法》，并遵循有色集团的《知识产权管理办法》，以确保公司在不侵犯他人知识产权的基础上，自身知识产权得到妥善保护与有效运用，维护公司的合法权益，并为企业的长远发展奠定坚实的创新基础。

In terms of patent management, the Company formulated the Technical Advancement Management Measures and adhered to CNMC's Intellectual Property Management Measures to ensure that its innovation activities respect third-party rights while safeguarding its own intellectual property. These efforts aim to protect the Company's legitimate interests and lay a solid foundation for long-term, innovation-driven development.

本报告期内，中国十五冶 During the Reporting Period, 15MCC

申请专利

41 项

Applied for 41 patents

授权专利

10 项

Obtained 10 granted patents

荣获著作权

1 项

Obtained 1 copyright



案例 Case 开展知识产权培训
Conducting Intellectual Property Training

公司积极组织员工参加多样化专利培训活动。本报告期内，公司参与了湖北省技术创新促进会举办的“基于研发平台的高价值专利培育、申报及管理运用”的专题知识产权培训，加强了知识产权的宣贯，强化了员工的专利保护及管理能力。

The Company actively encouraged employees to participate in a diverse range of patent training programs. During the Reporting Period, the Company took part in a specialized intellectual property training session themed on "High-Value Patent Development, Application, and Management Based on R&D Platforms" organized by the Hubei Provincial Association of Technological Innovation. This initiative enhanced awareness of intellectual property rights and strengthened employees' capabilities in patent protection and management.

为进一步强化科研力量与成果转化能力，聚焦“多金属绿色回收技术”等前沿领域，持续提升冶炼核心技术与智能化装备开发能力，中国十五冶联合俄罗斯自然科学院外籍院士曲胜利设立“中国十五冶曲胜利专家工作站”，并于2024年印发《院士专家工作站建设方案》。该平台的设立，是公司响应国家“科技强企”战略、构建协同创新体系的积极实践，旨在打造具有自主知识产权的高端冶炼技术，赋能行业可持续发展。

To further strengthen research capabilities and enhance the transformation of scientific and technological achievements, 15MCC has focused on frontier areas such as multi-metal green recovery technologies while continuously advancing its core smelting technologies and development of intelligent equipment. In collaboration with Professor Qu Shengli, a foreign academician of the Russian Academy of Natural Sciences, the Company established the "15MCC–Qu Shengli Expert Workstation." In 2024, it released the *Expert Workstation Development Plan*. This platform represents a proactive response to China's "Strengthening Enterprises Through Science and Technology" strategy and a concrete step toward building a collaborative innovation system. It aims to develop high-end smelting technologies with independent intellectual property rights and to empower sustainable development across the industry.



曲胜利院士为专家工作站揭牌

Academician Qu Shengli unveiled the expert workstation

攻坚核心科技
Breakthrough in Core Technologies

中国十五冶积极践行科技创新理念，依据企业自身优势与发展需求，确立了“立足有色、跳出有色”的发展策略。公司以服务主业、支撑主业、引领主业为导向，聚焦于培育“矿山综合能力”和“铜冶炼核心能力”，大力推广应用“四新技术”，旨在通过科技创新赋能企业高质量发展，为中国冶金产业以及相关领域的技术突破与产业升级贡献力量。

15MCC actively embraces a technology-driven development philosophy, formulating a strategic approach of "focus on nonferrous and seek to expand." Guided by the principles of serving, supporting, and leading its core business, the Company focuses on strengthening its comprehensive mining capabilities and core copper smelting technologies. By vigorously promoting and applying the "Four New Technologies"—new technologies, new processes, new materials, and new equipment—15MCC aims to harness innovation to empower high-quality growth. This commitment positions the Company to contribute meaningfully to technological breakthroughs and industrial upgrades in China's metallurgical sector and related industries.

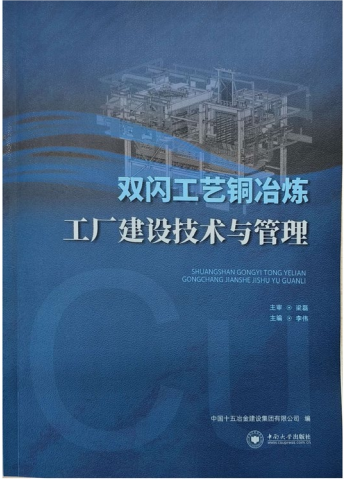
案例 Case 编撰“双闪”专著，夯实冶炼技术
Publishing the "Double Flash" Monograph to Strengthen Smelting Expertise

2024年底，中国十五冶召开《“双闪”工艺铜冶炼工厂建设技术与管理》专著专家评审会。“双闪”工艺作为全球先进的火法铜冶炼技术之一，中国十五冶已深度参与全球9座“双闪”冶炼厂中的7座工程建设，积累了丰富的技术与管理经验。

At the end of 2024, 15MCC convened an expert review meeting for its upcoming technical monograph *Engineering and Management of Copper Smelters Using the Double Flash Process*. Recognized as one of the world's most advanced pyrometallurgical copper smelting technologies, the double flash process has seen 15MCC involved in the engineering and construction of 7 out of 9 such smelters globally, demonstrating its deep technical expertise and project management capabilities.

本次专著编撰工作，是公司贯彻落实“立足有色、跳出有色”发展战略、系统总结“双闪”工程技术体系、持续培育铜冶炼核心能力的重要举措。评审会上，多位行业专家提出专业意见和修改建议，为后续内容完善与正式出版奠定了坚实基础。

The development of this monograph represents a key initiative in implementing the Company's strategy of "focus on nonferrous and seek to expand." It serves as a comprehensive technical consolidation of 15MCC's double flash experience and a cornerstone in enhancing its core competencies in copper smelting. During the review, leading industry experts offered professional insights and suggestions, laying a solid foundation for the monograph's refinement and official publication.



《“双闪”工艺铜冶炼工厂建设技术与管理》
Engineering and Management of Copper Smelters Using the Double Flash Process

2024 年科研重点方向 Key R&D areas for 2024

矿山领域 Mining

围绕“地、测、采、选、尾、修、数”全产业链，引进新工艺、新技术、新设备等措施，集合行业内外资源大力开展“跨界创新”，培育设计、咨询、投资、建设、采购、运营“六位一体”服务能力

Centered around the full industrial chain of "geology, surveying, mining, selection, tailings, repair, and data," introduce new processes, new technologies, and new equipment, gather resources from inside and outside the industry to vigorously carry out "cross-boundary innovation," and cultivate a "six-in-one" service capability encompassing design, consulting, investment, construction, procurement, and operation.

编制有色金属矿产资源合作开发业务白皮书、矿山膏体充填业务白皮书、选矿业务白皮书、有色金属行业光伏+储能业务白皮书

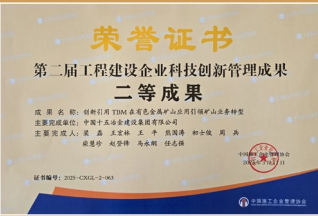
Compile white papers on the cooperative development business of non-ferrous metal mineral resources, the paste backfill business of mines, the beneficiation business, and the photovoltaic + energy storage business in the non-ferrous metal industry.

组织开展地下金属矿山 TBM 施工应用研究，创新性提出“有色金属矿用 TBM”概念，并在江铜银珠山项目中进行了应用实践

Organize and carry out research on the application of TBM construction in underground metal mines, innovatively propose the concept of "TBM for non-ferrous metal mines," and apply it in the Jiangxi Copper Yinzhu Mountain project.

完成了《创新引用 TBM 在有色技术矿山应用引领矿山业务转型》成果申报，获得第二届工程建设企业科技创新管理成果二等成果

Completed the achievement application for "Innovative Application of TBM in Non-Ferrous Technology Mines Leading Mine Business Transformation," winning the second prize in the second Engineering Construction Enterprise Science and Technology Innovation Management Achievements.



《创新引用 TBM 在有色技术矿山应用引领矿山业务转型》荣誉证书
Honorary certificate for "Innovative Application of TBM in Non-Ferrous Technology Mine Leading Business Transformation"



冶炼领域 Smelting

围绕核心工艺、核心装备等，聚焦节能、环保、绿色、低碳等需求开展科技攻关，通过“原始创新”培育冶炼核心能力，形成技术优势乃至技术壁垒，巩固公司在铜冶炼行业的龙头地位

Focused on core processes, core equipment, and other aspects, conduct scientific and technological research targeting energy saving, environmental protection, and green and low-carbon demands; through "original innovation," cultivate core smelting capabilities, form technological advantages and even technological barriers, consolidating the Company's leading position in the copper smelting industry.

在南方有色南国铜业项目开展《基于 AI 的富氧侧+顶吹粗铜冶炼工艺增强旁路控制系统》课题研究，采集超过 1,000 数据点位，通过智能算法持续分析整理，每月新增分析数据相当于数万页文档的规模，系统可根据实时运行情况提供操作建议，准确率超过 90%，并能提前 4 小时预测冰铜品位变化趋势，准确率在常规工况下超过 85%。

At the Southern Nonferrous Nanguo Copper project, the research project titled "AI-Based Enriched Oxygen Side + Top-Blown Matte Smelting Process Enhanced Bypass Control System" was carried out, collecting over 1,000 data points; through intelligent algorithms, continuous analysis and organization are conducted, with newly added monthly analysis data equivalent to tens of thousands of pages of documents. The system can provide operational recommendations based on real-time conditions, with accuracy exceeding 90%, and can predict matte grade changes 4 hours in advance, achieving accuracy above 85% under normal operating conditions.



南国铜业项目控制系统
Control system of the Nanguo Copper Smelting Project

关键成果 Key achievements

参与制定颁布实施标准《建筑业企业卓越质量管理体系实施导则》

Participate in the formulation, promulgation, and implementation of the standard *Guidelines for the Implementation of Excellent Quality Management Systems in Construction Enterprises*.



获得中国管理科学研究院教育科学研究所科技进步奖 1 项

Win one award for scientific and technological progress from the Institute of Educational Science of the China Academy of Management Science.



数字化赋能建造
Digital Empowerment

2024 年，中国十五冶着力推动数字化转型，开展了标准化数字矿山研究，构建标准化有色金属矿山数字化架构，推动高精度数字孪生技术研发，并在新疆萨热克铜矿试点数字化方案。同时，公司在数字化转型领域取得多项重点成果，有效提升了企业运营效率与管理水平。

In 2024, 15MCC actively advanced its digital transformation by launching research on standardized digital mines and building a standardized digital architecture for non-ferrous metal mining. The Company promoted the development of high-precision digital twin technologies and piloted its digitalization solution at the Sarek Copper Mine in Xinjiang. Meanwhile, 15MCC achieved a series of key milestones in digital transformation, significantly enhancing operational efficiency and management performance.

2024 年度数字化转型重点工作 Key work of digital transformation in 2024



构建有色金属矿山数字化架构，依托系统化思维和结构化方法，围绕标准化打造“一张网、两平台、一中心”。
Built a digital architecture for non-ferrous metal mines, centered on systematic thinking and structured methodologies, and developed a standardized framework featuring "one network, two platforms, and one center."



采用管理视图分析法和 MECE（指“相互独立，完全穷尽”）原则，全集成化生产运营管理功能模块。开发高效低成本的高精度实景数字孪生技术，实现矿山场景与工况实景建模。
Applied management visualization analysis and the MECE principle (i.e. "mutually exclusive, collectively exhaustive") to create a comprehensive set of production and operations management modules. Developed a cost-efficient, high-precision digital twin technology for realistic modeling of mining scenarios and operating conditions.



在标准化基础上，打造全流程、多场景的业务标准化，进而构建数字化矿山技术产品体系和方案。
Based on standardized processes, established a fully integrated, multi-scenario business standardization system, laying the foundation for a complete suite of digital mine technology solutions and products.



中国十五冶结合一体化移动基站与管理平台同步部署，在新疆有色萨热克铜矿开展矿山数字化方案试点。
Copper Mine of Xinjiang Nonferrous Metals, combining deployment of integrated mobile base stations with its centralized management platform.

2024 年度数字化转型亮点回顾
Review of the highlights of digital transformation in 2024



自主可控云基础设施建设：部署 9 台云主机，2 套数据库，1 条云专线及云安全产品，同时满足了现有系统以及新建系统的自主可控环境应用。
Independent and controllable cloud infrastructure: Deployed 9 cloud servers, 2 database systems, 1 dedicated cloud line, and cloud security products, ensuring autonomous and secure operations for both existing and newly developed systems.



总部网络升级：实现办公大楼无线全覆盖，支持一次登录、无缝漫游。
Headquarters network upgrade: Achieved full wireless coverage across office buildings, supporting single sign-on and seamless roaming.



工程管理平台：构建 4 个子系统（工程管理、安全管理、商务管理、财务管理），含 47 个一级模块。
Engineering management platform: Built 4 subsystems, i.e., Project Management, Safety Management, Commercial Management, and Financial Management, which include 47 primary-level modules.



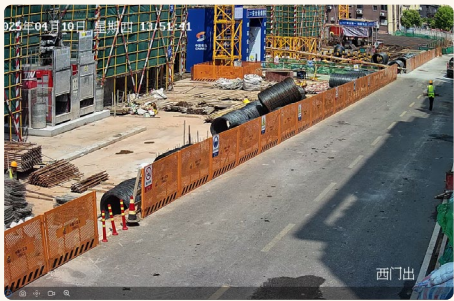
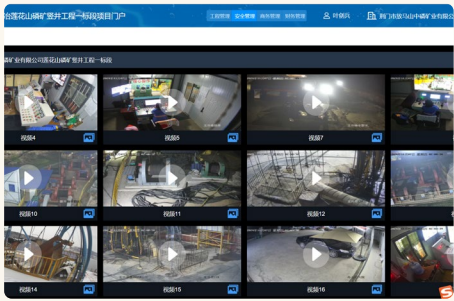
财务共享系统：商旅平台全面启用，RPA 工具自动化资金结算、开票、收款登记，提升效率与体验。
Finance sharing system: Fully launched the travel and expense platform; implemented RPA tools for automated fund settlement, invoicing, and payment registration, improving operational efficiency and user experience.



物资设备管理：完成基础平台搭建，上线自购材、资产盘活、周转材料、供应商应用 4 模块。
Materials and equipment management: Completed the foundational platform and launched four modules covering self-procured materials, asset revitalization, reusable materials, and supplier applications.



自主可控邮箱：邮箱系统升级，容量增至 2,000 用户，实际用户增长至 1,517，应用率提升 412%。
Autonomous email system: Upgraded the email system to support 2,000 users, with actual users rising to 1,517 and application rate increasing by 412%.



智慧工地
Smart construction site

网络安全是企业运营稳定性和数据安全性的基石，中国十五冶高度重视网络安全问题，并定期参与护网行动，以提升网络安全防护能力、保障网络空间安全并防范外部网络攻击和数据泄露问题。

Cybersecurity is the cornerstone of operational stability and data integrity. 15MCC places a high priority on cybersecurity and regularly participates in national Cyber Shield campaigns to enhance its defense capabilities, safeguard cyberspace security, and prevent external cyberattacks and data breaches.

本报告期内 During this Reporting Period

公司在数字化转型方面投入总金额

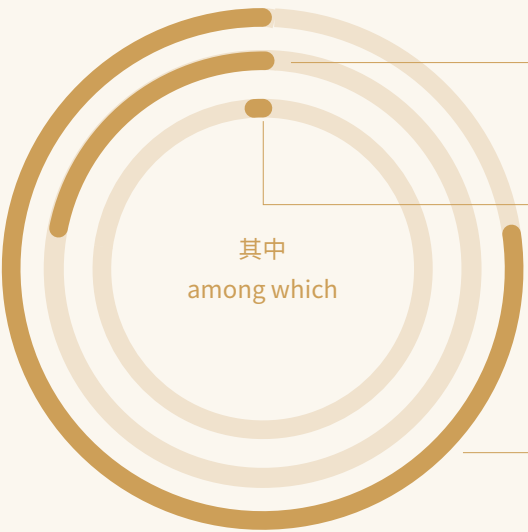
886 万元

The Company invested a total of RMB 8.86 million in digital transformation

本报告期内 During the Reporting Period



公司参与 2024 年护网行动，处理网络系统安全问题 **597** 项
The Company participated in the 2024 Cyber Shield campaigns and handled 597 cybersecurity issues in the network system



24 小时内处理 **130** 项
handled 130 matters (22%)
within 24 hours

22%

完成信息化系统安全更新 **6** 项
completed 6 (1%) security updates
to the information system

1%

实时处理紧急事项 **461** 项
handled 461 urgent matters
(77%) in real-time

77%

推动行业发展

Promotion of Industry Development

中国十五冶积极开展行业交流与产学研合作，拓展海内外合作伙伴关系，携手各方推动高质量与可持续发展。公司通过参与行业活动，精准把握行业动态、前沿科技及发展趋势，同时注重人才培养，借助校企合作作为行业持续输送专业人才。

15MCC actively engages in industry exchange and collaboration across the industry-academia-research ecosystem, expanding its network of domestic and international partners to jointly promote high-quality and sustainable development. By participating in key industry events, the Company stays abreast of industry dynamics, cutting-edge technologies, and emerging trends. At the same time, it places strong emphasis on talent development, leveraging university-enterprise cooperation to continuously supply skilled professionals to the sector.

产学研合作 Industry-academia-research cooperation

与中南大学签署合作框架协议

Signed a cooperation framework agreement with Central South University

与东北大学资源与土木工程学院签署战略合作协议

Signed a strategic cooperation agreement with the School of Resources and Civil Engineering of Northeastern University

与昆明理工大学签署战略合作协议

Signed a strategic cooperation agreement with Kunming University of Science and Technology

与武汉科技大学签署战略合作协议

Signed a strategic cooperation agreement with Wuhan University of Science and Technology

与中赞职业技术学院举行属地技工培养签约仪式

Held a signing ceremony for local skilled worker training with Zambia-China Vocational and Technical College

行业标准制定 Industry standard setting

主编《有色金属矿山 TBM 应用技术规程》团体标准

Edited the group standard *Technical Specification for TBM Application in Non-ferrous Metal Mines*

参编《建筑业企业卓越质量管理体系实施指导》团体标准

Participated in the compilation of the group standard *Guidelines for the Implementation of Excellent Quality Management Systems in Construction Enterprises*



行业活动参与 Participation in industry activities

参加了各项行业活动，包括但不限于： Participated in various industry activities, including but not limited to:

2024 中国对外承包工程行业发展大会
暨中国对外承包工程行业发展论坛
2024 China Overseas Contracting Engineering
Industry Development Conference and China
Overseas Contracting Engineering Industry
Development Forum



2024 年 ENR 全球最大 250 家国际承包商中
国上榜企业授牌仪式

Awarding ceremony for Chinese enterprises
on the list of ENR's Top 250 International
Contractors in 2024



投资中国·国家级经开区产业转移对接会
Investment in China·Industrial Transfer
Matchmaking Conference for National Economic
Development Zones

第十三届中国中部投资贸易博览会
The 13th Central China Investment
Promotion Conference

第四届国际工程风险管理论坛
The 4th International Engineering Risk
Management Forum

2024（第二十四届）中国国际矿业大会
China Mining 2024

工程建设新兴领域与新发展机遇经验交流会
Experience exchange meeting on emerging
fields and new development opportunities in
engineering construction

中国国际进口博览会
China International Import Expo

中国有色金属和行业 ESG 专题培训
Special training on ESG in the Chinese non-
ferrous metals industry

2024 年全国企业管理创新大会
2024 National Conference on Enterprise
Management Innovation

2024 年中国品牌博览会
2024 China Brand Expo

第五届智慧城市和智能建造产业博览会
The 5th Smart City and Intelligent
Construction Industry Expo



区域协同发展 Coordinated regional development

国内深耕的湖北、江西、山东区域成绩突出，承接了以下项目：

15MCC achieved notable results in its core domestic markets—Hubei, Jiangxi, and Shandong—where it secured the following representative projects:

鄂州高速公路项目
Ezhou Expressway Project

黄石西塞山区系列项目
A series of projects in
Xisaishan District, Huangshi

贵溪市柏里新区棚户区改造 1 号安置点项目
Guixi City Boli New Area Shantytown Reconstruction
Resettlement Site Project No. 1

山东恒邦复杂金精矿多
元素综合回收项目

Shandong Hengbang
Complex Gold Concentrate
Multi-element Comprehensive
Recovery Project

山东恒邦冶炼股份有限
公司辽上金矿建设项目

Liaoshang Gold Mine
Construction Project of
Shandong Hengbang
Smelting Co., Ltd

以上项目累计新签合同额占国内新签合同额的

43.66%

The cumulative newly signed contract value of the
above projects accounts for 43.66% of the newly
signed contract value of Chinese projects

案例 Case

承建项目入选中央企业工业文化遗产（矿业行业）名录

The Contracted Projects are Included in the List of Industrial Cultural Heritages (Mining Sector) of Central Enterprises

中国十五冶承建的国投新疆罗布泊钾盐有限责任公司罗中生产基地和中国稀土集团中稀（凉山）稀土有限公司牦牛坪稀土矿山两个项目入选国资委首批《中央企业工业文化遗产（矿业行业）名录》。2006 年起，公司在生命禁区罗布泊地区持续奋战，助力国投罗钾打造“硫酸钾航母”；2013 年攻克高原施工难题，完成牦牛坪稀土矿磨浮主厂房及尾矿坝建设，交付国家级“绿色矿山”精品工程。公司致力于成为行业领先的矿山综合服务商，持续推动矿业高质量发展。

Two projects undertaken by 15MCC—the Luozhong Production Base of SDIC Xinjiang Luobupo Potash Co., Ltd. and the Maoniuping Rare Earth Mine of Zhongxi (Liangshan) Rare Earth Co., Ltd. under China Rare Earth Group—were included in the first batch of *Industrial Cultural Heritage (Mining Sector) Catalog* released by SASAC. Since 2006, 15MCC has worked tirelessly in the harsh environment of the Luobupo Desert to help build SDIC's "potassium sulfate flagship." In 2013, the Company overcame high-altitude construction challenges to complete the main flotation plant and tailings dam of the Maoniuping Rare Earth Mine, delivering a national-level "green mine" benchmark project. With a commitment to becoming an industry-leading integrated mine service provider, 15MCC continues to drive high-quality development in the mining sector.



罗中生产基地
Luozhong production base



牦牛坪稀土矿山
Maoniuping rare earth mine

专题聚焦三
Topic 3

共建
“一带一路”

Jointly Building the
Belt and Road Initiative

中国十五冶始终以高度的使命感践行国家“一带一路”倡议，积极服务国家战略，践行属地化运营与文化共融理念，通过海外业务拓展助力沿线国家基础设施建设与民生改善，推动跨文化互鉴与全球合作发展。

15MCC has always embraced a strong sense of mission in implementing China's Belt and Road Initiative in alignment with national strategies. The Company adheres to the principles of localized operations and cultural integration, leveraging overseas business expansion to support infrastructure development and improve livelihoods in partner countries along the Belt and Road. Through these efforts, 15MCC promotes cross-cultural exchange and advances global cooperation and development.

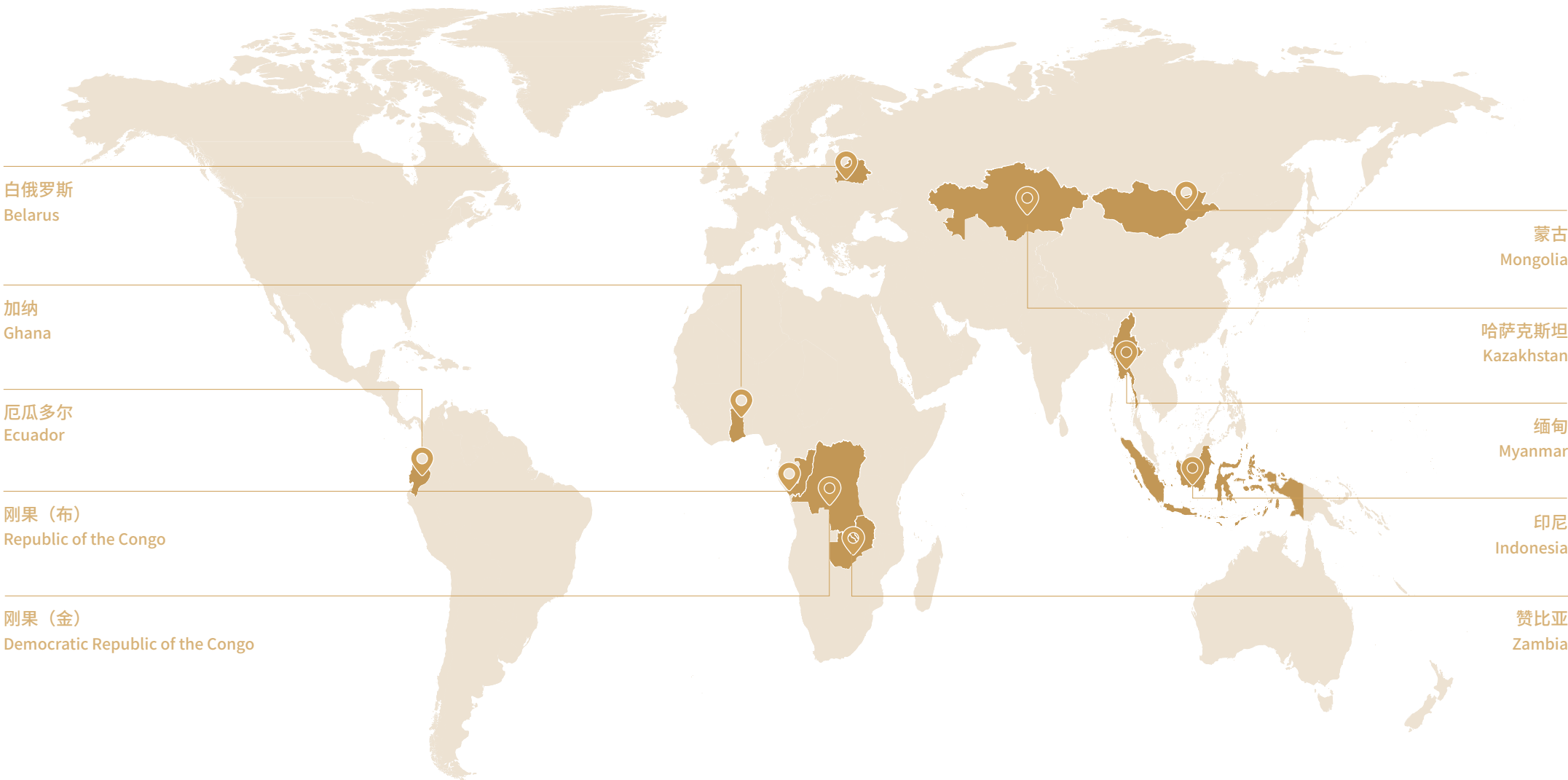
践行国家战略
Implement National Strategy

中国十五冶紧跟国家战略导向，积极投身于“一带一路”沿线国家的基础设施建设与经济合作项目。我们秉持“共商、共建、共享”的原则，精心布局海外业务版图，通过一系列重点项目落地与深化属地化运营，不仅为当地创造了经济价值与就业机会，更以实际行动诠释了中国企业全球化进程中的责任担当。

15MCC closely aligns with national strategic priorities and actively participates in infrastructure development and economic cooperation projects in countries along the Belt and Road. Upholding the principle of broad consultation, joint contribution, and shared benefits, we have carefully mapped out our global business footprint. Through the implementation of key projects and the deepening of localized operations, we have not only created economic value and employment opportunities for local communities but also demonstrated the responsibility and commitment of Chinese enterprises in the process of globalization.

自“十四五”以来，公司提出以国际市场为主要布局阵地，立足现有区域市场，助力“一带一路”沿线国家的战略方向。2024 年，公司印发《“十四五”发展战略与规划（中期调整版）》和《海外业务发展战略》，设立海外业务部，坚定不移“走出去”，做大做强海外业务。以“基地深耕、区域布局、有序发展”为原则，优化海外市场布局，合理控制进入国家数量，探索成立重点国别区域总部，围绕赞比亚、刚果（金）、印度尼西亚、哈萨克斯坦等国家进行开展重点区域建设，坐实重点国家国别公司，擦亮“中国十五冶”金字招牌，重点承揽矿山、冶炼项目。

Since the beginning of the 14th Five-Year Plan, 15MCC has established a strategic direction centered on positioning international markets as the primary focus, consolidating existing regional markets, and supporting the development of countries along the Belt and Road. In 2024, the Company released the *Mid-term Adjustment to the 14th Five-Year Development Strategy and Plan* and the *Overseas Business Development Strategy*, established the Overseas Business Department, and reaffirmed its commitment to "going global" to scale up and strengthen its international operations. Guided by the principles of "deepening presence at key bases, regional expansion, and orderly development," 15MCC is optimizing its global market layout by rationally managing the number of countries entered and exploring the establishment of regional headquarters in priority countries. The Company is focusing on building a strategic presence in Zambia, the DRC, Indonesia, and Kazakhstan; strengthening the foundation of key country-specific subsidiaries; and enhancing the reputation of the "15MCC" brand. The overseas expansion effort prioritizes securing contracts in mining and smelting projects.



一带一路国家工程项目 Engineering projects in Belt and Road countries

哈萨克斯坦 Kazakhstan

中国土木工程集团有限公司哈萨克斯坦分公司
China Civil Engineering Group Co., Ltd. Kazakhstan Branch



印尼 Indonesia

安曼矿业公司
Amman Mining Company

印尼安曼 90 万吨 / 年铜冶炼项目
Amman 900,000 t/a Copper Smelting Project in

印尼安曼 BatuHijau 铜选矿厂扩建项目
Amman Batu Hijau Copper Processing Plant Expansion Project



白俄罗斯 Belarus

涅德拉涅任开放式股份有限公司
Nedra Naryn Open Joint-Stock Company

白俄罗斯 200 万吨氯化钾综合体建设项目
Construction Project of 2 million-ton Potassium Chloride Complex in Belarus

斯维特洛戈尔斯克纸浆厂开放式股份公司
SvetlogorskKhimvolokno

白俄罗斯化纤厂 EP 项目
EP Project of Belarusian Chemical Fiber Factory



缅甸 Myanmar

中色镍业（缅甸）有限公司
CNMC Nickel Industry (Myanmar) Co., Ltd.

达贡山镍矿 2023-2024 采矿项目
Dagongshan Nickel Mine Mining Project from 2023-2024



蒙古 Mongolia

蒙古珍宝塔本陶勒盖公司
Erdenes Tavan Tolgoi JSC

蒙古国输煤和选煤厂 EPC 项目
Mongolia Coal Transportation and Coal Preparation Plant EPC Project



厄瓜多尔 Ecuador

厄瓜多尔科里安特公司
Ecuador Corriente Company

厄瓜多尔米拉多铜矿 4620 万吨 / 年（扩建）采选项目
Ecuador Mirador Copper Mine 46.2 Million Tons/year (Expansion) Mining and Processing Project



加纳 Ghana

山东黄金卡蒂诺纳穆蒂尼矿业有限公司
Shandong Gold Cattinona Mutini Mining Co., Ltd.

加纳金矿处理厂安装工程
Ghana Gold Mine Processing Plant Installation Project



刚果（布）The Republic of the Congo

刚果（布）索瑞米股份有限公司
Soremi S.A. of Republic of the Congo

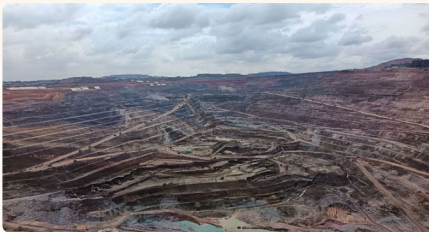
黑角索瑞米铜铅锌多金属矿生产期采剥工程
Heijiao Soremi Copper-Lead-Zinc Polymetallic Mine Production Phase Stripping Project



刚果（金）The DRC

华刚矿业股份有限公司
Huagang Mining Co., Ltd.

SICOMINES 铜钴矿采剥工程
SICOMINES Copper-Cobalt Mine Project



赞比亚 Zambia

中色卢安夏铜业有限公司
CNMC Luanshya Copper Co., Ltd.

卢安夏 20 及 28 号竖井区域抽排水项目
No. 20 and No. 28 Shaft Pumping and Drainage Project in Luanshya



深化属地运营 Deepen Local Operations

中国十五冶响应国家“一带一路”倡议，主动融入当地社会，扎根属地深化运营实践，关注当地员工关怀，尊重当地文化习俗，关注员工职业成长，助力属地经济发展与社会进步，实现互利共赢。

公司结合各国属地实际，强化海外项目人员出国前准备、驻地生活保障、属地员工培养等措施，注重前中后方协同关爱，建立健康管理、节日慰问与属地化融合并重的长效机制。截至本报告期末，中国十五冶为 13 个国家的超 7,400 多名当地员工提供了就业岗位，主要为土建、安装、采矿、地质等相关生产岗位，促进当地劳动力的技能提升与职业发展提供了宝贵的机遇。

2024 年，中国十五冶在海外人力资源管理体系建设上迈出关键一步，首次设立“优秀外籍员工”评选机制，表彰在海外项目中表现突出的外籍员工，激发属地员工归属感与荣誉感，营造积极向上的多元文化氛围。该机制的设立，标志着公司在推动属地化运营、建设国际化人才队伍方面实现制度性突破。

15MCC actively responds to China's Belt and Road Initiative by embedding itself within local communities and advancing localized operations. The Company prioritizes employee well-being, respects local customs and cultural traditions, and invests in the development of its local workforce. By contributing to regional economic growth and social advancement, 15MCC fosters inclusive development and achieves mutual benefit with countries where it operates.

15MCC tailors its overseas operations to the realities of each country where it operates, strengthening pre-departure preparation, on-site living support, and training programs for local employees. The Company emphasizes care and coordination across all phases—before, during, and after deployment—and has established a long-term mechanism that integrates health management, holiday care, and cultural integration. As of the end of the Reporting Period, 15MCC had created employment opportunities for over 7,400 local workers across 13 countries, primarily in civil engineering, installation, mining, and geology. These efforts have played a vital role in upskilling the local workforce and fostering long-term career development.

In 2024, 15MCC took a significant step forward in strengthening its overseas human resources management by launching its first "Outstanding Local Employee" recognition program. This initiative honors exceptional performance by local staff on overseas projects, fostering a sense of belonging and pride while cultivating a positive and inclusive multicultural workplace. The establishment of this program marks a breakthrough in institutionalizing the Company's commitment to localized operations and building a diverse, international talent pool.



案例 Case 属地化人才引进典型案例：加纳籍大学生回国任职 A Typical Case of Localized Talent Recruitment: A Ghanaian University Graduate Returns to Work in His Home Country

在推进属地化高端人才建设过程中，中国十五冶首次通过国内招聘渠道，在武汉聘用了一位加纳籍大学毕业生。入职后，公司结合其专业背景及语言文化优势，安排其回到加纳项目开展本地工程管理与协调工作，实现个人发展与属地运营双向赋能。该案例成为公司在国际化人才战略实践中的一次有益尝试，展现出属地用人机制的灵活性与前瞻性。

As part of its efforts to build a high-caliber localized talent pipeline, 15MCC successfully hired a Ghanaian university graduate through domestic recruitment channels in Wuhan — a first for the Company. Leveraging the employee's academic background and cross-cultural competencies, the Company assigned him to a project site in Ghana, where he now contributes to local engineering management and coordination. This Case exemplifies a mutually empowering approach to individual career development and localized operations. It also reflects 15MCC's flexible and forward-looking talent deployment strategy in the context of its broader internationalization efforts.

守护海外员工身心健康 Safeguard the Physical and Mental Health of Overseas Employees

中国十五冶持续完善海外员工关爱机制，聚焦健康保障、技能培训、文化融合等方面，用心构建“工作安心、生活舒心、身心暖心”的海外员工幸福家园，提升员工获得感与归属感，助力公司海外业务高质量发展。

15MCC continues to strengthen its overseas employee care mechanisms, with a dedicated focus on health protection, skills training, and cultural integration. By thoughtfully fostering a supportive environment where employees feel secure at work, comfortable in daily life, and cared for in body and mind, the Company is building a "happy home away from home" for its international workforce. These efforts have enhanced employees' sense of fulfillment and belonging while supporting the high-quality development of 15MCC's global operations.

案例 Case 加强海外员工心理关怀 Strengthening Psychological Care for Overseas Employees

本报告期内，公司组织开展“海外一封家书”征文活动，召开海外员工家属座谈会，并组织海外员工出国回国接送 219 人次，搭建前后方沟通桥梁，缓解员工思乡情绪，增强海外员工归属感和凝聚力。

During the Reporting Period, 15MCC launched a letter-writing campaign, "A Family Letter from Overseas," held roundtable discussions with the families of overseas staff, and coordinated 219 times of employee drop-off and pick-up for international travel. These initiatives helped build stronger communication bridges between front-line overseas staff and domestic support teams, easing homesickness and enhancing employees' sense of belonging and cohesion.



2024 年海外员工家属座谈会
Symposium for the families of overseas employees in 2024

在蒙古国项目部，公司定期组织健康监测和应急医疗培训；在刚果（金）TFM 项目部，设立远程会诊机制并开展防疫知识讲座；印尼 IPIP 项目部建立“健康小屋”，提供员工减压场所。公司机关积极与武汉同济、协和等三甲医院专家联系，建立专家远程会诊群，对海外项目部急症员工开展线上会诊，及时给出准确诊疗方案，让病情得到有效控制。

At its Mongolia project site, 15MCC regularly organizes health monitoring and emergency medical training. At the TFM project in the DRC, the Company has established a remote consultation mechanism and conducted public health education seminars. Meanwhile, at the IPIP project in Indonesia, a "Wellness Cabin" has been set up to provide employees with a space for stress relief. At headquarters, 15MCC actively coordinates with top-tier hospitals such as Tongji and Union Hospital in Wuhan to establish expert telemedicine consultation groups. These enable remote diagnosis and treatment for urgent medical Cases among overseas staff, ensuring timely and accurate care and effective control of illnesses.

案例 Case TFM 项目属地防疫培训
Local Epidemic Prevention Training at the TFM Project

中国十五冶 TFM 项目部结合属地卫生健康特点，系统组织开展“猴痘防疫知识”“预防蚊虫叮咬、雷击及毒蛇咬伤”等主题讲座，切实提升海外员工的安全意识与应急处置能力。通过科学普及、预防为先，公司有效增强了项目一线员工的健康防护水平，为海外工程环境筑起坚实的安全屏障。

The TFM Project Department of 15MCC, in alignment with local public health characteristics, systematically organized thematic lectures such as "Monkeypox Prevention Knowledge" and "Prevention of Mosquito Bites, Lightning Strikes, and Venomous Snakebites," effectively enhancing overseas employees' safety awareness and emergency response capabilities. Through scientific education and a prevention-first approach, the Company has significantly strengthened the health protection level of frontline project personnel and built a solid safety barrier for the overseas project environment.

属地化人才培养建设
Development of Local Talents

公司持续加大海外属地员工培养力度，在蒙古国项目中累计培养属地技术骨干 200 余人，在刚果（金）卡莫亚项目部组织开展驾驶员安全培训，在 LCS 项目部结合属地需求开展法律常识普及与法语教学，在多个海外项目部定期举办技能比武活动，全面提升属地员工专业技能与综合素质，有力促进了稳定就业和属地团队建设。

The Company continues to strengthen the training of overseas local employees. At the Mongolia project, over 200 local technical backbones have been cultivated. The Kamoia Project Department in the DRC organized safety training for drivers, while the LCS Project Department launched legal literacy and French language courses based on local needs. Multiple overseas project departments regularly held skills competitions to comprehensively enhance local employees' professional skills and overall capabilities, effectively promoting stable employment and the development of localized talents.

案例 Case 以师带徒促融合，培养属地中坚力量
Promote Integration Through Mentorship to Cultivate a Backbone Local Workforce

在蒙古国项目中，中国十五冶对外籍员工持续推进“师带徒”结对帮扶机制，在技术培养和思想教育的共同作用下，部分属地化工人逐步成长为项目现场工程队伍里的中坚力量，为项目部大幅降低人力成本，减少项目运行合规化风险，在提供稳定就业机会的同时，还带动了当地社会经济发展。

At the Mongolia project, 15MCC has continuously advanced a mentorship-based pairing system for foreign employees. Through a combined focus on technical training and ideological guidance, several local workers have gradually grown into key members of the on-site engineering teams. This initiative has significantly reduced labor costs and minimized compliance risks for the project while also providing stable employment opportunities and contributing to the local socio-economic development.

促进文化共融
Promote Cultural Integration

中国十五冶持续推进跨文化沟通实践，通过文化交流活动与员工关怀举措，促进多元文化协同与属地社会融合，为项目可持续发展营造良好的人文环境。

15MCC has continued to promote cross-cultural communication by organizing cultural exchange activities and implementing employee care initiatives. These efforts foster multicultural collaboration and integration with local communities, creating a favorable humanistic environment that supports the sustainable development of its projects.



文化交流活动 Cultural Communication Activities

在春节、圣诞节等重要节日，公司组织多样化活动，促进文化共融与员工关爱。春节前夕，公司领导走访慰问患病员工家属；节日期间，开展“全球连线送祝福”活动，向坚守岗位的海外员工及其家属传递关怀，并在加纳、刚果（金）等项目部举办中外员工联欢会。同时，为属地员工组织圣诞节慰问，充分体现公司对多元文化的尊重与融合，营造温暖、和谐的工作氛围。

During major holidays such as the Spring Festival and Christmas, 15MCC organizes a variety of activities to promote cultural integration and employee care. Ahead of the Spring Festival, Company leaders visited the families of ill employees to offer support. During the holiday period, the Company launched a "Global Blessings Relay" to extend care and appreciation to overseas employees and their families who remained on duty. Joint celebrations for Chinese and local staff were held at project sites in countries such as Ghana and the DRC. Additionally, Christmas care events were organized for local employees, fully reflecting the Company's respect for and integration of diverse cultures while fostering a warm and harmonious working environment.



TFM 中区项目部开展组织圣诞节慰问属地员工活动

The TFM Central Project Department organized a Christmas caring activity for local employees



MMG 项目部组织“送清凉”活动

The MMG Project Department organized a "cooling-off" activity



加纳金矿项目部组织开展迎春节活动

The Ghana Gold Mine Project Department organized a Spring Festival welcome activity



海外公益慈善 Overseas Public Welfare and Charity

中国十五冶践行海外公益责任，积极投身属地社区建设，关注弱势群体帮扶与教育、医疗等领域，以公益力量助力属地社会福祉提升。

15MCC actively fulfills its corporate social responsibility overseas by engaging in local community development initiatives. The Company focuses on supporting vulnerable groups and contributing to education, healthcare, and other essential areas, using the power of public welfare to promote social well-being in countries where it operates.

案例 Case

向哈萨克斯坦属地医院开展爱心捐赠 Charity Donation to a Local Hospital in Kazakhstan

2024 年 12 月，中国十五冶所属科万古普公司联合阿斯塔纳卫生保健中心共同开展中哈友谊公益活动，向该中心捐赠 300 万坚戈（约合人民币 5 万元），用于支持社区公共健康和民生保障。此次爱心捐赠在寒冷冬季为当地居民送去温暖，充分展现了中国十五冶积极履行属地社会责任、推动中外民心相通的责任担当，赢得当地政府和社区群众的高度认可。

In December 2024, 15MCC's subsidiary Kewang Gupu, in collaboration with the Astana Healthcare Center, jointly launched a Kazakhstan-China Friendship Charity Initiative. The Company donated KZT 3 million (approximately RMB 50,000) to support local public health and social welfare programs. This heartfelt donation brought warmth to the community during the cold winter months and fully demonstrated 15MCC's commitment to fulfilling its social responsibilities in host countries and fostering people-to-people ties between China and foreign communities. The initiative received high recognition from the local government and community residents.



捐赠合影
Group photo of the donation



01

治理篇

Governance

8 体面工作和
经济增长
DECENT WORK AND
ECONOMIC GROWTH

9 产业、创新和
基础设施
INDUSTRY INNOVATION
AND INFRASTRUCTURE

16 和平、正义与
强大机构
PEACE, JUSTICE
AND STRONG
INSTITUTIONS

17 促进目标实现的
伙伴关系
PARTNERSHIPS
FOR THE GOALS

2024 年是贯彻落实党的二十大精神的关键一年，也是推进“十四五”战略目标落地的攻坚之年。中国十五冶紧扣改革深化提升主线，持续完善合规管理体系，优化治理结构，推动制度体系升级与权责机制优化，进一步健全风险防控体系与绩效考核机制，全力夯实高质量发展的治理基础，提升企业核心竞争力与可持续发展能力。

The year 2024 marked a critical period for implementing the guiding principles of the 20th National Congress of the Communist Party of China and a pivotal year for advancing the goals of the 14th Five-Year Plan. Staying focused on the overarching theme of deepening reform and driving improvement, 15MCC continued to enhance its compliance management system, optimize its governance structure, and upgrade its institutional framework and accountability mechanisms. The Company further strengthened its risk prevention and control system and performance evaluation mechanism, laying a solid governance foundation for high-quality development and enhancing its core competitiveness and capacity for sustainable growth.

完善公司治理 Improvement of Corporate Governance

中国十五冶始终将深化改革视为激发企业活力、增强发展韧性、实现高质量发展的关键举措。2024 年，公司聚焦改革深化提升行动重点任务，系统推进治理体系优化与机制重塑，通过修订完善党委议事规则、“三重一大”制度，制定《企业定位手册》《管理权限综合清单》等，持续健全权责法定、协调运转、有效制衡的公司治理机制，巩固三年改革行动成果，推动中国特色现代企业制度走深走实，不断提升公司治理体系和治理能力现代化水平。

15MCC consistently regards deepening reform as a key measure to stimulate corporate vitality, enhance development resilience, and achieve high-quality growth. In 2024, the Company focused on the priority tasks of advancing reform and upgrading efforts, systematically promoting the optimization of the governance system and the reshaping of mechanisms. This included revising and improving the Party Committee's rules of procedure and the decision-making system on major events, appointments and removal of important officials, important project arrangements, and use of large amounts of funds, as well as formulating the *Corporate Positioning Manual* and the *Comprehensive List of Management Authorities*. Through these efforts, the Company continuously improves a governance mechanism characterized by legally defined powers and responsibilities, coordinated operations, and effective checks and balances, consolidating the achievements of the three-year reform campaign, advancing the modernization of the Chinese-style modern enterprise system, and steadily enhancing the modernization level of its governance system and governance capabilities.

公司治理架构 Corporate Governance Structure

中国十五冶严格遵守《中华人民共和国公司法》《中华人民共和国企业国有资产法》等相关的法律法规和《公司章程》等规范性文件要求，持续健全现代公司治理体系，推动治理结构日益规范、职责边界不断清晰。公司设立董事会、党委会、监事会及经理层，认真履行“把方向、管大局、保落实”的职责，对重点问题亲自研究、部署协调、推动解决，将合法合规性审查和重大风险评估作为重大决策事项必经前置程序。

15MCC strictly complies with the relevant laws and regulations, such as the *Company Law of the People's Republic of China*, the *Law of the People's Republic of China on the State-Owned Assets of Enterprises*, and normative documents, including the *Articles of Association*. The Company continuously improves its modern corporate governance system, promoting increasingly standardized governance structures and clearer delineation of responsibilities. It has established a Board of Directors, Party Committee, Board of Supervisors, and management team, diligently fulfilling its responsibilities to take the leading role of controlling the general direction, managing the overall situation, and promoting the implementation. For key issues, the Company's leadership personally studies, coordinates, and drives resolutions, making legal compliance reviews and major risk assessments mandatory procedures for significant decision-making.

董事会 The Board of Directors

董事会是中国十五冶的经营决策机构，牢牢把握“定战略、作决策、防风险”职责定位，负责对主要指标完成情况、关键业务、改革重点领域、运营重要环节进行监督。董事会由 5 人组成，其中外部董事 3 人；下设董事会战略与投资委员会、薪酬与考核委员会、审计与风险委员会三个专委会。

The Board of Directors is the operational decision-making body of 15MCC. The Board must be completely clear about the responsibilities of "specifying strategies, making decisions, and preventing risks". It is in charge of overseeing the completion of major targets, key businesses, and reforms in important fields, as well as operation and management. The Board consists of five members, including three outside directors. Under the Board, there are three specialized committees, namely the Strategy and Investment Committee, the Remuneration and Appraisal Committee, and the Audit and Risk Management Committee.

监事会为中国十五冶的监督机构，由 3 名监事组成，其中由有色集团委派 2 人，公司职工代表大会选举 1 人。

The Supervisory Committee is the supervisory body of 15MCC, consisting of three supervisors, of which two are appointed by the Group and one is elected by the staff congress of the Company.

监事会 The Supervisory Committee

经理层 The Management Level

经理层积极开展“谋经营、强管理、抓落实”的工作。经理层由 5 人组成，其中包含总经理、副总经理、总会计师。

The management level actively carries out the work of planning business operations, emphasizing implementation, and enhancing management. The management consists of five members, including the general manager, deputy manager, and chief accountant.



本年度，中国十五冶共召开董事会 9 次，审议议案 59 项，其中决策类议案 46 项，已完成 45 项，持续推进 1 项；董事会专委会召开 8 次，审议议案 15 项。公司召开党委会 36 次，审议议案 268 项，其中属于“三重一大”事项的议案 214 项。公司召开总经理办公会 24 次，审议议案 155 项，其中重大事项 121 项，保证了重大事项决策规范。此外，本报告期内公司印发《党委会议事规则》《“三重一大”决策制度实施办法》《董事会议事规则》《董事会权限及授权事项清单》等文件，进一步明晰了治理主体权责边界，提升制度化、规范化水平。

In 2024, 15MCC held 9 board of directors meetings, reviewing a total of 59 proposals, including 46 decision-making proposals, of which 45 have been completed and 1 is ongoing. The board's special committees convened 8 times, and reviewed 15 proposals. The Company held 36 Party Committee meetings, and reviewed 268 proposals, including 214 related to the decision-making system on major events, appointments and removal of important officials, important project arrangements, and use of large amounts of funds. The general manager's office convened 24 meetings, reviewing 155 proposals, including 121 major matters, ensuring standardized decision-making on critical issues. Additionally, during this Reporting Period, the Company issued documents such as the *Rules of Procedures of Party Committee*, *Implementation Measures for the Decision-Making System on Major Events, Appointments and Removal of Important Officials, Important Project Arrangements, and Use of Large Amounts of Funds*, *Rules of Procedures of Board Meeting*, and the *Board of Directors Authority and Delegation List*, further clarifying governance bodies' powers and responsibilities and enhancing institutionalization and standardization.

深化国企改革 Deepen SOEs Reform

2024 年，中国十五冶聚焦打造中国特色现代企业制度，系统推进改革深化提升行动，持续巩固国企改革三年行动成果。公司修订了公司治理相关制度，新制定《企业定位手册》《国内区域市场实施方案》等，推动组织架构优化和核心业务聚焦。

In 2024, 15MCC focused on establishing a modern Chinese-style corporate governance system and systematically advanced the deepening reform initiatives, continuously consolidating the achievements of the three-year state-owned enterprise reform campaign. The Company revised corporate governance-related regulations and newly formulated documents such as the *Corporate Positioning Manual* and the *Domestic Regional Market Implementation Plan*, promoting organizational structure optimization and core business focus.

公司推动对子公司实行权责法定、协调运转的治理机制，指导重点企业制定董事会职权落实方案，推动规范董事会建设层层落实，指导对外公司、中色矿山公司制定落实董事会职权工作方案，完善落实董事会职权配套制度、机制，并在有色集团内董事会评价中获得第一名。

The Company promoted a governance mechanism for subsidiaries based on statutory authority and coordinated operation, guiding key enterprises to develop implementation plans for board of directors' authorities, driving standardized board construction, and thorough implementation at all levels. It provided guidance for external companies and CMNC Mining Corporation to formulate and implement board authority execution plans, improved supporting systems and mechanisms for board authority fulfillment, and ranked first in the board evaluation in the Group.

2024 年度，公司深化国有改革亮点内容 Highlights on deepening the reforms of SOEs in 2024

- 推动专业化、区域化组织布局，明确所属单位定位，加快资源整合，推进钢构、冶炼等专业化公司组建

Promoted specialized and regional organizational layouts by clarifying the positioning of affiliated units, accelerating resource integration, and advancing the establishment of specialized companies in the steel structure and smelting sectors.

- 打造重点国别，推动刚果（金）、赞比亚、印尼等重点片区发展，提升海外运营能力

Developed key country-focused operations, promoting growth in priority regions such as the DRC, Zambia, and Indonesia to enhance overseas operational capabilities.

- 为赞比亚谦比希铜矿定制矿用 TBM——“中国有色二号”

Customized the "CNMC No. 2" mining TBM for the Chambishi copper mine in Zambia.

- 构建项目管理信息化平台

Established a project management information platform.

- 推动组织优化与区域布局，设立四川子公司与山东子公司，重组新疆分公司，制定国内区域化实施方案

Drove organizational optimization and regional deployment by establishing subsidiaries in Sichuan and Shandong, restructured the Xinjiang branch, and formulated a domestic regional implementation plan.

- 编制《矿山综合解决方案白皮书》，构建“设计、咨询、投资、建设、采购、运营”一体化模式，推进资质延续，推动信息化、绿色化转型升级

Compiled the *White Paper on Comprehensive Mining Solutions*, built an integrated model covering design, consulting, investment, construction, procurement, and operation; advanced qualification renewals; and promoted digitalization and green transformation upgrades.

- 矿山光伏储能电站业务取得突破，加快推动绿色能源融合发展

Achieved breakthroughs in mining photovoltaic energy storage power station projects, accelerating the integration and development of green energy.

合规廉洁建设 Construction of Compliance and Integrity Practices

中国十五冶恪守“依法治企、合规经营”理念，全面落实中央企业法治合规要求，持续深化法治建设，切实强化合规管理，健全风险防控体系，不断提升依法合规经营管理能力，努力实现公司高质量发展。

15MCC abides by the concept of "governing the enterprise according to law and operating in compliance." We fully implement the legal and compliance requirements for centrally administered state-owned enterprises, continuously advance the rule-of-law system, strengthen compliance management, improve the risk prevention and control framework, and consistently enhance its capabilities in law-abiding and compliant operations, striving to achieve high-quality development.

合规管理体系 Compliance Management System

2024 年，中国十五冶持续健全合规管理制度体系，修订《风控合规管理办法》《全面风险管理实施细则》，印发《合规管理办法》《全面风险与内部控制管理办法》《公司总部重点岗位合规职责清单》，为依法合规经营提供制度保障。

In 2024, 15MCC continued to improve its compliance management system by revising the *Measures for Risk Control and Compliance Management* and the *Detailed Rules for the Implementation of Comprehensive Risk Management*. The Company also issued the *Compliance Management Measures*, the *Measures for Comprehensive Risk and Internal Control Management*, and the *Compliance Responsibility List for Key Positions at Headquarters*, thereby providing robust institutional support for law-based and compliant operations.

在合规管理方面，公司构建党委—董事会—经理层—风控管理部门—监督问责机构“五位一体”的合规组织体系，明确职责边界，压实主体责任。公司设立首席合规官并由总法律顾问兼任，统筹合规管理体系构建、制度审查、重大事项合规评估与应对；各业务部门设立业务合规官与合规管理员，法律风控部作为合规牵头部门提供制度建设、审查支持、培训指导等服务。

In terms of compliance management, the Company established a five-tiered compliance governance structure comprising the Party Committee, Board of Directors, Executive Management, Risk Control Department, and Supervision & Accountability Bodies. This framework clearly defines the boundaries of responsibility and strengthens the accountability of each entity. The Company appointed a Chief Compliance Officer, concurrently held by the General Counsel, to oversee the development of the compliance management system, policy reviews, and compliance assessment and response for major matters. Each business department designated Business Compliance Officers and Compliance Administrators, while the Legal and Risk Control Department, serving as the lead unit, provided support in system development, policy review, and training and guidance services.



合规管理组织体系
Organizational structure of compliance management

2024 年 5 月，公司印发《落实集团 2024 年法治合规工作要点实施方案》，围绕六大重点任务部署法治建设具体工作。

In May 2024, the Company issued the *Implementation Plan for Implementing the Key Points of the 2024 Legal Compliance Work of the Group*, and deployed specific legal construction work around six key tasks.

本报告期内 During the Reporting Period

公司完成经济合同评审

628 份

The Company reviewed 628 economic contract

规章制度与重大事项审查

44 项，均出具专项法律意见书并完成合法性与风险点提示

The Company reviewed 44 rules and regulations and major issues, issued special legal opinions, and completed the prompt of legality and risk points

培育合规文化
Cultivate Compliance Culture

公司将合规文化融入企业日常经营与员工管理之中。2024 年，围绕关键时间节点，如民法典宣传月、宪法日、安全生产月等，公司持续推动合规宣传进车间、进项目、进课堂，普及法治知识。我们通过合规承诺、专题培训、线上学习、答辩会等多种形式，引导员工增强法律意识、履行合规职责，其中管理人员、业务合规官、新员工等重点群体均纳入年度培训和考核范畴，营造“人人懂法、事事合规”的企业文化氛围。

The Company has integrated a culture of compliance into its daily operations and employee management practices. In 2024, around key national awareness periods, such as the Civil Code Publicity Month, Constitution Day, and Work Safety Month, the Company continued to advance compliance education across workshops, project sites, and training classrooms, promoting legal knowledge throughout the organization. Through various initiatives, including compliance pledges, specialized training sessions, online learning programs, and compliance Q&A forums, employees were guided to strengthen their legal awareness and fulfill their compliance responsibilities. Key groups, including management personnel, business compliance officers, and new hires, were all included in annual training and evaluation plans, fostering a corporate culture where everyone understands the law and everything is done in a compliant manner.



案例 Case 开展项目经理合法合规经营专题培训
Special Training on Legal and Compliant Operation Project Managers

2024 年 5 月，中国十五冶开展项目经理合法合规经营专题培训。培训以“强合规、防风险、守底线”为主题，采取“现场 + 视频”方式开展，面向国内外项目负责人进行。培训围绕企业合规基本概念、项目履约合规案例、行政处罚典型情形等展开，通过课堂讲授、案例教学与实务交流相结合，提出针对性管理建议。法律风控部为培训设计了 8 道客观题，纳入项目经理结业考试。

In May 2024, 15MCC conducted a specialized training session for project managers on lawful and compliant operations. Centered on the theme "strengthen compliance, prevent risks, stick to the bottom line," the training was delivered in a hybrid format combining on-site and video sessions, targeting project leaders across both domestic and overseas operations. The training covered fundamental concepts of corporate compliance, case studies on project performance compliance, and common scenarios leading to administrative penalties. It integrated classroom instruction, case-based teaching, and practical exchanges, offering targeted management recommendations. To reinforce learning outcomes, the Legal and Risk Control Department designed eight multiple-choice questions, which were included in the final examination for project manager certification.

培训帮助识别项目合同与经营管理中的风险，有效提升项目部合规履约能力，为公司合规文化建设和项目风险防控提供了有力支撑。

The training helped identify risks in project contracts and business management, effectively improving the project department's ability to perform contracts in compliance and providing strong support for the Company's compliance culture construction and project risk prevention and control.



合规经营培训现场
On-site photo of the compliance operation training

案例 Case 组织国家宪法日普法培训
Law Popularization Training on the National Constitution Day

2024 年 12 月，中国十五冶开展国家宪法日普法培训，围绕“弘扬宪法精神，护航高质量发展”主题，采用“线上 + 线下”方式开展。培训内容涵盖宪法基础、合同评审要点等，参训人员达 153 人次。公司通过图文讲解与案例分析相结合，强化员工依法治企意识，提升合同管理规范性，推动合规文化深入一线。

In December 2024, 15MCC conducted a legal awareness training session in observance of China's National Constitution Day, under the theme "promoting the spirit of the constitution, safeguarding high-quality development." The training was delivered in a hybrid "online + offline" format and attracted 153 participants. The session covered fundamental aspects of the Constitution as well as key points in contract review. By combining visual explanations with case analysis, the training strengthened employees' awareness of law-based corporate governance, enhanced the standardization of contract management, and promoted the integration of compliance culture into frontline operations.



国家宪法日普法培训现场
On-site photo of the law popularization training on the National Constitution Day

维护公平竞争

Ensure Fair Competition

公平竞争作为市场经济的基本原则，是市场机制高效运行的重要基础。中国十五冶严格遵守《中华人民共和国反垄断法》《中华人民共和国反不正当竞争法》等相关法律法规，并不断强化主体责任，加强管理层及员工的法律法规意识，树立公平竞争理念，坚决遏制不正当竞争行为，全力营造健康有序的良性竞争环境。

Fair competition is a fundamental principle of the market economy and a critical foundation for the efficient functioning of market mechanisms. 15MCC strictly complies with the *Anti-Monopoly Law and the Anti-Unfair Competition Law of the People's Republic of China*, while continuously strengthening accountability and enhancing the legal awareness of both management and employees. The Company upholds a strong commitment to fair competition, resolutely curbing unfair practices and striving to foster a healthy, orderly, and sound competitive environment.

完善反腐制度

Improve Anti-corruption Systems

中国十五冶深入贯彻全面从严治党要求，持续推进清廉企业建设，健全反腐倡廉制度体系，坚决开展监督执纪问责。2024 年，公司围绕构建“大监督”格局，印发了《党委构建“大监督”工作机制的实施方案（试行）》及监督责任清单、工作方案等制度文件，推动各类监督力量贯通融合，强化对关键环节、重点岗位的监督制约。

在强化监督执纪方面，公司围绕选人用人、招标采购、公务接待、基层微腐败等重点领域深化廉洁风险防控，持续开展专项监督、整治治理，加强整改督办，推动监督嵌入日常、融入经常。聚焦“关键少数”和基层项目一线，公司向公司中层及以上领导干部提示“20 种不能去的饭局”，并发放反腐纪实类书籍《追问》，同时将监督工作下沉，全面打通全面从严治党“最后一公里”，有效提升监督质效。

15MCC has thoroughly implemented the requirements of full and strict Party governance, continuously advanced the development of a clean and honest enterprise, and improved its anti-corruption and integrity system. In 2024, the Company focused on building a "comprehensive supervision" framework and issued the *Implementation Plan for Establishing a 'Comprehensive Supervision' Mechanism by the Party Committee (Trial)*, along with related documents such as the supervision responsibility list and work plan. These efforts have promoted the integration and coordination of various supervision forces, strengthening checks and supervision over key areas and critical positions.

To strengthen discipline inspection and supervision, 15MCC intensified integrity risk prevention and control in key areas such as personnel selection and appointment, bidding and procurement, official receptions, and grassroots corruption. The Company carried out targeted supervision and rectification efforts, reinforced follow-up on corrective actions, and embedded supervision into daily operations. Focusing on the "key minority" and frontline grassroots projects, the Company issued reminders to mid-level and senior managers regarding "20 types of banquets to avoid," distributed the anti-corruption casebook *The Questioning*, and extended supervision down to the grassroots level, effectively bridging the "last mile" in the full and rigorous governance of the Party and significantly improving supervision quality and effectiveness.

案例 Case 反“四风”专项监督 Special Supervision on "Combating the ' Formalism, Bureaucracy, Hedonism, and Extravagance'"

为加强对节假日期间落实中央八项规定精神情况的监督，2024 年度，公司纪委组织开展节假日明察暗访 7 次，对公务接待、公车管理、值班值守等情况进行专项监督检查。检查组围绕落实公务接待规定、值班人员在岗值守情况、公务用车使用管理等关键环节开展现场核查，督促相关单位严格执行节假日廉洁纪律要求，有效传导了纪律压力，推动节日期间作风建设常态化、制度化。

To strengthen supervision of the implementation of the Central Eight-Point Regulation during holidays, the Company's Discipline Inspection Commission organized seven covert and overt inspections in 2024. These focused on key areas including official receptions, official vehicle management, and duty attendance. The inspection teams conducted on-site verifications targeting compliance with official reception rules, duty personnel presence, and official vehicle usage management. They urged relevant units to strictly enforce holiday integrity discipline requirements, effectively reinforcing disciplinary pressure and promoting the normalization and institutionalization of work style improvements during holiday periods.



组织开展节假日明察暗访
The Discipline Inspection Commission organized on-site inspections and unannounced visits during holidays



在教育引导方面 Education and guidance

公司以典型案例通报、专题培训、违法行为专项治理、廉洁文化传播等形式，加强党员干部纪律教育和警示教育，引导全员筑牢思想防线，增强拒腐防变意识。结合党纪学习教育部署，聚焦易发多发问题开展精准教育，推动纪律要求入脑入心。

The Company strengthened disciplinary and cautionary education for Party members and cadres through typical case notifications, specialized training, targeted rectification of violations, and dissemination of integrity culture. These efforts aimed to help all employees build a strong ideological defense line and enhance awareness of resisting corruption and preventing moral decay. Aligning with the deployment of Party discipline learning and education, the Company focused on frequently occurring and prone-to-occur issues to conduct precise education, ensuring disciplinary requirements are deeply understood and internalized.



在制度治理方面 Institutional governance

公司聚焦制度“立改废”并重，进一步规范谈话函询、巡视巡察、涉案财物管理、责任追究等关键制度流程，构建以制度管人、按制度办事的长效机制，推进反腐败工作常态化、规范化。

The Company focused equally on the enactment, revision, and abolition of laws and regulations, further standardizing key procedural systems such as conversations and inquiries, inspections and audits, management of case-related assets, and accountability measures. It built a long-term mechanism based on managing personnel and handling affairs according to regulations, promoting the normalization and standardization of anti-corruption work.

在海外业务管理中，公司加强属地廉洁风险防控，围绕重点国别退出、履约风险、资金回收等领域开展专项监督，推动监督机制、制度要求和廉洁教育同步延伸至海外，筑牢“走出去”廉洁防线，保障境外经营合规稳健。

In overseas business management, the Company strengthened local anti-corruption risk prevention by conducting targeted supervision in key areas such as withdrawal from key countries, contract performance risks, and fund recovery. It promoted the extension of supervisory mechanisms, institutional requirements, and integrity education to overseas operations, thereby building a solid, clean governance barrier for its going global strategy and ensuring compliant and stable overseas business operations.

廉洁制度文件发布
Release of integrity system documents

廉洁建设教育活动
Integrity building education activities

廉政监督与处置
Integrity supervision and handling

廉政考核与提醒
Integrity assessment and reminder

廉政培训覆盖范围
Coverage of integrity training

纪检监察和整改
Discipline inspection, supervision, and rectification

海外廉洁风险管理
Overseas integrity risk management

发布或修订制度文件 20 余项，含《构建“大监督”工作机制的实施方案》《监督日志手册》《谈话函询工作规程》等
Issued or revised over 20 institutional documents, including the *Implementation Plan for Building a 'Comprehensive Supervision' Work Mechanism*, *Supervision Log Handbook*, and *Regulations on Conversations and Inquiries*.

共举办警示教育大会 4 次，参与人数 461 人；发布廉政专栏文章 58 篇，阅读量达 8372 次
Held 4 cautionary education conferences with 461 participants; published 58 articles in the integrity column with 8,372 total views.

明察暗访开展 7 次，派出工作专班 11 个；全年通报典型案例 53 起
Conducted 7 covert and overt inspections and deployed 11 special task forces; reported 53 typical cases throughout the year.

廉洁提醒发送 722 余人次；回复党风廉政意见 361 人次
Sent over 722 integrity reminders; received 361 feedback responses related to party conduct and clean governance.

组织反贪腐培训 11 场，参训高管 6 人，中层 122 人，普通员工 3,728 人次；纪检干部轮训 83 人次
Organized 11 anti-corruption training sessions with attendance including 6 senior executives, 122 middle managers, and 3,728 general employees; rotated training for 83 discipline inspection staff.

制定完善制度文件 42 项；召开巡视整改相关会议 4 次；开展对“关键少数”专项排查 2,009 人
Formulated and improved 42 institutional documents; held 4 meetings on inspection rectification; carried out a special inspection of 2,009 "key minority" personnel.

深入推进属地项目监督机制，监督日志在基层推广，推进境外腐败问题排查、警示教育制度和制度落实
Deepened supervision mechanisms at local projects, promoted the use of supervision logs at the grassroots level, and advanced overseas corruption investigations, cautionary education, and institutional implementation.

2024 年党风廉政建设和反腐败工作会议暨警示教育大会

The 2024 Conference on the Construction of Party Conduct and Clean Government and the Anti-Corruption Work and the Cautionary Education Conference

畅通举报机制 Unblock Reporting Channels

公司设有来信、来访、来电和网络等多维举报渠道，致力于增强员工的反腐败意识和举报腐败行为的积极性。本年度，公司积极拓展举报渠道，创建“监督一点通”平台，确保员工能快捷、安全地举报违规违纪违法行为。提倡、鼓励实名检举控告，对实名检举控告优先办理、优先处置、给予反馈。公司制定了相关保护机制，保障善意举报人权益不受侵害。

The Company has established multiple reporting channels including letters, visits, phone calls, and online platforms, aiming to enhance employees' anti-corruption awareness and encourage reporting of corrupt practices. In the current year, the Company actively expanded its reporting channels by launching the "Supervision One-Stop" platform, ensuring employees can report violations, disciplinary breaches, and illegal acts quickly and securely. The Company advocates and encourages real-name reporting, giving priority to handling, processing, and providing feedback on such reports. Relevant protection mechanisms have been established to safeguard the rights and interests of whistleblowers acting in good faith.

举报方式
Reporting channel

举报电话
Reporting tel

027-51015323
(中国十五冶纪委)
(Discipline Inspection Commission of 15MCC)

举报邮箱
Reporting email

swyjw@cn15mcc.com

来信、来访地址
Mailing and visiting address

湖北省武汉市东湖开发区高新大道 788 号中国十五冶纪委（邮编：430075）
Discipline Inspection Commission of 15MCC, 778 Gaoxin Avenue, East Lake High-tech Development Zone, Wuhan, Hubei Province (Postcode: 430075)

全面风险管理 Comprehensive Risk Management

中国十五冶持续推进全面风险管理工作，聚焦经营目标实现过程中的风险识别、评估与应对，构建动态更新、分工明确的风险管理机制，强化各部门和单位在风险防控中的职责履行，提升企业整体风险防控水平。

15MCC has continued to advance its Comprehensive Risk Management efforts by focusing on identifying, assessing, and addressing risks throughout the pursuit of its business objectives. The Company has established a dynamic, clearly defined risk management mechanism, reinforcing accountability across all departments and subsidiaries. These efforts have significantly enhanced 15MCC's overall risk prevention and control capabilities.

风险管理制度 Risk Management System

公司制定《风控合规手册》和《风险数据库》，并每年组织修订，确保风险识别制度的完整性与适应性。各部门及子分公司作为“第一道防线”，负责风险识别与评估，动态更新风险信息，持续完善数据库。公司依托风险框架开展定期识别填报，并在年末编制《风险评估报告》，明确重点风险、控制措施及责任人，报审计与风险委员会审核确认。各部门同步制定风控流程，协助完成相关计划与报告，保障制度有效落实。

15MCC has developed the *Risk Control and Compliance Manual and the Risk Database*, which are reviewed and updated annually to ensure the completeness and adaptability of its risk identification system. As the "first line of defense," each department and subsidiary is responsible for identifying and assessing risks, continuously updating risk information, and improving the database accordingly. Relying on a structured risk management framework, the Company conducts regular risk identification and Reporting. At year-end, a Risk Assessment Report is compiled, outlining key risks, control measures, and responsible personnel, and is submitted to the Audit and Risk Committee for review and approval. Departments also establish internal risk control procedures to support the preparation of related plans and Reports, ensuring the effective implementation of risk management systems.

中国十五冶构建了“三横三纵”的风控合规管理体系，旨在全面提升依法合规经营管理水平，防范和化解各类风险，保障企业高质量发展。

15MCC has established a "three horizontals and three verticals" risk control and compliance management system, aiming to comprehensively enhance lawful and compliant business operations, prevent and mitigate various risks, and safeguard high-quality corporate development.

通过“三横三纵”的风控合规管理架构，中国十五冶实现了党委、董事会、经理层的合规管理职责分工与协同，以及业务部门、法律部门、纪检监察和审计部门的风险防控三道防线，全面提升了公司的依法合规经营管理水平。

Through this framework, 15MCC has clarified and coordinated the compliance responsibilities across the Party Committee, the Board of Directors, and the Executive Level (the three verticals), while strengthening the "three lines of defense" in risk prevention—namely, operational departments, the legal and compliance function, and disciplinary inspection, audit, and supervisory bodies (the three horizontals). This integrated architecture has significantly improved the Company's overall capacity to operate in a lawful and compliant manner.

第一道防线 First Line of Defense

公司总部部门、所属单位

Headquarters Departments and Affiliated Units

负责建立职责范围内的风控制度与流程，开展风险识别与评估，梳理重点岗位风险，落实风险应对措施，执行经营管理活动的风控审查，及时报告风险并组织或配合风险处置，切实承担日常风控管理责任。

Responsible for establishing risk control systems and procedures within their respective areas, conducting risk identification and assessment, mapping risks associated with key positions, implementing risk response measures, and performing risk control reviews during business operations. They are also tasked with promptly Reporting risks, organizing or assisting in risk mitigation, and taking full responsibility for day-to-day risk control management.

第二道防线 Second Line of Defense

公司法律部门

Legal Department

负责组织制定风控管理制度，审查规章制度、合同及重大决策事项，识别和预警风险，开展风险应对与培训咨询，推进风控信息化建设，并对公司风控体系有效性开展评估，统筹公司整体风控管理工作。

Responsible for organizing the formulation of risk control management systems, reviewing internal regulations, contracts, and major decision-making matters, identifying and providing early warnings of risks, and offering support through risk response, training, and consultation. The department also promotes the digitalization of risk control and evaluates the effectiveness of the Company's risk control system, coordinating overall risk management efforts.

第三道防线 Third Line of Defense

纪检机构和审计、巡视巡察、监督追责等监督部门

Discipline Inspection and Supervision Bodies (including Audit, Inspection, and Accountability Departments)

依据相关规定，监督风控制度的执行情况，查处风险管理中的违规行为，实施问责和追责，保障公司风控体系规范运行和持续优化。

In accordance with relevant regulations, these bodies supervise the implementation of risk control systems, investigate violations in risk management, enforce accountability, and ensure the standardized operation and continuous improvement of the Company's risk control system.

“三纵”风控管理架构及运行机制
The "three verticals" structure and mechanism



风险全流程管控

Whole-process Risk Control

中国十五冶持续推进风险识别与预警工作，组织各部门及子分公司按照风险框架体系动态识别、填报风险信息，更新并维护《风险数据库》，确保风险数据的完整性和适用性。公司牵头制定《风控合规手册》和《风险数据库》，并定期组织修订更新。每年年末，公司围绕年度经营目标开展全面风险评估，识别影响目标实现的重大风险，分析风险影响程度，制定应对措施，明确责任主体，最终形成《风险评估报告》，报审计与风险委员会审核确认。

15MCC has continued to advance its risk identification and early warning efforts by organizing departments and subsidiaries to dynamically identify and report risks in accordance with the Company's risk framework. The Company regularly updates and maintains the *Risk Database* to ensure the completeness and applicability of risk data. 15MCC takes the lead in formulating the *Risk Control and Compliance Manual* and the *Risk Database*, organizing regular revisions to keep them current. At the end of each year, the Company conducts a comprehensive risk assessment aligned with its annual business objectives. This includes identifying major risks that may affect goal achievement, analyzing the potential impact, formulating response measures, and designating responsible parties. The results are compiled into a *Risk Assessment Report*, which is submitted to the Audit and Risk Committee for review and confirmation.

在风险控制与追踪方面，公司建立了风险事件报送机制，各单位需定期填报《风险事件实时报送及月度跟踪监测表》，并向法律事务部报备。报告期内，公司印发《关于开展 2024 年度重大经营风险预测评估工作的通知》，组织开展了全级次 2024 年度重大经营风险预测评估工作。

In terms of risk control and tracking, 15MCC has established a risk event reporting mechanism. All business units are required to regularly complete the *Risk Event Real-Time Reporting and Monthly Tracking & Monitoring Form* and submit it to the Legal Affairs Department for record. During the Reporting Period, the Company issued the *Notice on Carrying Out the Major Operational Risk Forecast and Assessment Work in 2024* and organized a company-wide forecast and evaluation of major operational risks for 2024 across all levels.



风险识别、评估及处置流程
The process of risk identification, assessment and handling

根据评估结果，2024 年度公司识别的前三大经营风险为：应收账款风险、安全风险、工程项目进度风险。法律事务部按季度动态监测上述重点风险指标，牵头监控和跟踪重大经营风险，指导责任单位更新管控措施，并按季度汇总形成《公司重大经营风险监测情况报告》，提交分管领导及风控合规管理委员会审阅，确保风险应对措施及时、有效。

Based on the assessment results, the top three operational risks identified by the Company for 2024 are: accounts receivable risk, safety risk, and engineering project schedule risk. The Legal Affairs Department conducts quarterly dynamic monitoring of these key risk indicators, takes the lead in overseeing and tracking major operational risks, and guides responsible units in updating control measures. *Major Operational Risk Monitoring Report* is compiled quarterly and submitted to the relevant senior management and the Risk & Compliance Management Committee for review, ensuring that risk mitigation actions are both timely and effective.

强化审计纪检
Strengthen Audit and Discipline Inspection

中国十五冶持续健全审计监督体系，积极发挥审计在完善治理、优化管理、强化风险防控中的保障作用。公司成立审计中心，全面加强审计工作的集中统一领导，推动审计资源整合和机制创新，完善了审计管理手册，建立审计组长负责制和“1+N”审计模式，逐步实现从分散执行向专业集中转型升级。

15MCC continued to improve its audit supervision system in 2024, actively leveraging auditing as a safeguard mechanism to enhance corporate governance, optimize management, and strengthen risk prevention. The Company established an Audit Center to reinforce centralized and unified leadership over audit activities, promote the integration of audit resources, and drive mechanism innovation. It revised and improved the Audit Management Manual, implemented a lead auditor responsibility system, and adopted a "1+N" audit model, gradually shifting from decentralized execution to a more specialized and centralized audit approach.



本年度，公司聚焦经济责任、重点项目和专项治理，扎实推进各类审计项目，推动分包管理清查，建立问题台账，助力化解项目管理中存在的重点难题。在整改环节，公司进一步完善审计问题闭环机制，分级建立整改清单与责任体系，定期组织集中整改反馈，持续提升审计成果应用效能。

In 2024, the Company focused on economic responsibility, key projects, and special governance, steadily advancing various audit projects. It promoted subcontract management inspections and established an issue ledger to help address critical challenges in project management. During the rectification phase, the Company further improved the audit issue closure mechanism, established tiered rectification lists and responsibility systems, and regularly organized centralized feedback sessions to continuously enhance the effectiveness of audit results application.

案例 Case 开展审计培训和制度宣贯
Conducting Audit Training and System Promotion

为提升审计人员能力，公司系统开展审计培训和制度宣贯，强化对新审计制度、操作流程、风险识别等方面的培训，打造专业化、高素质审计人才队伍。

同时，公司全面组织内部控制监督与评价，对内控体系运行情况、制度有效性进行持续监督和优化，支撑企业治理水平不断提升。

To enhance the capabilities of audit personnel, the Company has systematically carried out audit training and system promotion, strengthening training on new audit systems, operating procedures, risk identification, etc., and building a professional and high-quality audit talent team.

At the same time, the Company has comprehensively organized internal control supervision and evaluation, continuously monitored and optimized the operation of the internal control system and the effectiveness of the system, and supported the continuous improvement of the enterprise's governance level.



审计岗前培训
Pre-job training of audit

本报告期内 During the Reporting Period

开展审计培训次数

5 次

The Company conducted 5 audit training sessions



参与审计培训人次

92 人次

With 92 participants receiving the training



审计业务培训
Audit business training

应急保障体系

Emergency Support System

应急管理体系

Emergency Management System

中国十五冶高度重视安全生产管理，成立安全生产委员会，建立公司总部—所属单位—基层项目部三级安全管理体系，确保公司安全生产工作平稳有序运行。公司制定《安全生产管理办法》《生态环境保护管理办法》，作为安全生产和生态环境保护的核心管理制度，明确各单位安全职责和管理要求，按期收集所属单位、项目部的安全环保报表，夯实基础管理。同时，公司积极推进 ISO 45001 职业健康安全管理体系建设，持续提升安全生产规范化、系统化水平。

15MCC places great importance on safety production management. The Company has established a Safety Production Committee and developed a three-tier safety management system spanning Company headquarters, affiliated units, and project departments to ensure the stable and orderly operation of safety work. The Company has formulated the *Safety Production Management Measures and Ecological Environment Protection Management Measures* as core management systems for safety and environmental protection, clearly defining safety responsibilities and management requirements at all levels. Regular collection of safety and environmental reports from affiliated units and project departments solidifies foundational management. Meanwhile, the Company actively promotes the construction of the ISO 45001 Occupational Health and Safety Management System, continuously enhancing the standardization and systematization of safety production.



三级安全管理组织架构
Three-level safety management organizational structure

中国十五冶按照“全覆盖、全流程、全员责任”的要求，健全安全管理组织体系。公司各级单位均设立安全生产委员会（安委会）及与生产经营相适应的安全生产管理部门，形成纵向到底、横向到边的安全生产管理网络。

安委会主任由本单位主要负责人担任，副主任由分管安全生产的领导（安全总监）担任，成员由其他领导及各职能部门负责人组成，办公室设在同级安全管理部门。安委会负责统筹规划、决策研究重大安全生产事项，明确职责分工，落实安全生产目标责任，切实提升公司整体安全管理水平。

为强化日常监管，公司每周组织境内外项目视频调度，每月召开安全总监例会，季度对重点监控项目开展专项检查。公司每半年组织一次安全环保大检查，检查前下发检查通知，检查完成后形成整改通报，并对排名靠后的项目单位进行考核处罚，同时适时组织整改复查，确保问题闭环整改，持续提升本质安全管理水平。

15MCC has established a comprehensive safety management organizational system following the principles of "full coverage, full process, and full accountability." Each level of the Company has set up a Safety Production Committee (SPC) and safety management departments corresponding to their production and operational needs, forming a safety management network that extends vertically to the grassroots and horizontally across all areas.

The SPC is chaired by the primary leader of the unit, with the deputy chair held by the leader responsible for safety production (Safety Director). Members include other leaders and heads of functional departments, and the office is located within the corresponding safety management department. The SPC is responsible for overall planning, decision-making, and research on major safety production matters, clarifying division of responsibilities, implementing safety production target responsibilities, and effectively enhancing the Company's overall safety management level.

To strengthen daily supervision, the Company organizes weekly video coordination meetings for domestic and overseas projects, holds monthly safety director meetings, and conducts quarterly special inspections on key monitored projects. Every six months, the Company carries out comprehensive safety and environmental inspections, issuing inspection notices beforehand and producing rectification reports after completion. Project units with poor rankings are subject to assessments and penalties. Additionally, follow-up inspections are organized in a timely manner to ensure closed-loop rectification of issues, continuously enhancing intrinsic safety management levels.



应急预防机制
Emergency Prevention Mechanism

中国十五冶深化双重预防机制建设，常态化开展隐患排查整治，重点聚焦危险作业和高风险环节，实行隐患闭环管理，做到隐患排查全覆盖、整改零容忍，有效防范各类安全风险。

15MCC has deepened the construction of the dual prevention mechanism, regularly conducting hidden hazard investigations and rectifications. The focus is on hazardous operations and high-risk links, implementing closed-loop management of hazards to ensure full coverage of hazard identification and zero tolerance for rectification, effectively preventing various safety risks.



钢构分公司安全检查前交底
Safety inspection briefing of the Steel Structure Branch before inspection



钢构分公司开展安全检查
Steel Structure Branch conducted safety inspections

公司坚持以事故案例警示教育为抓手，定期组织安全警示教育 and 事故应急演练，提升员工风险防范意识和应急处置能力。2024 年，公司加强隐患排查治理力度，持续开展“平安夏季送清凉、送活动、送技术”专项行动，覆盖 97 个项目部 5,000 余人。

同时，公司规范劳动防护用品配发管理，持续提升员工职业健康防护水平和应急处置能力，筑牢职业健康安全防线。

The Company adheres to using accident cases and cautionary education as a key educational tool, regularly organizing safety warning training and emergency drills to enhance employees' risk awareness and emergency response capabilities. In 2024, the Company intensified hidden hazard investigations and remediation efforts, continuously carrying out the "Safe Summer: Sending Coolness, Activities, and Technical Support" campaign, engaging over 5,000 employees across 97 project sites.

At the same time, the Company standardized the distribution and management of personal protective equipment, continuously improving employees' occupational health protection and emergency response capabilities, thereby strengthening the occupational health and safety defense line.



应急响应处置
Emergency Response and Handling

公司通过健全安全事故管理体系，强化安全风险分级管控与隐患排查治理双重预防机制，有效防范和减少事故发生，保障了生产经营的安全稳定运行。本报告期内，公司未发生因工死亡事故，工伤事故发生率持续保持较低水平。

公司为员工缴纳安全生产责任保险（“安责险”），涵盖自有职工、外聘员工及返聘员工，职业伤害保险覆盖率达 100%。

The Company has improved its safety incident management system and strengthened the dual prevention mechanism of safety risk classification control and hidden hazard investigation and remediation, effectively preventing and reducing accidents to ensure the safe and stable operation of production and business activities. During the Reporting Period, the Company experienced no work-related fatalities, and the incidence rate of work injuries remained consistently low.

The Company provides work safety liability insurance for employees, covering in-house staff, contracted workers, and rehired employees, achieving 100% coverage of occupational injury insurance.



安全环保管理体系完善 Improvement of the safety and environmental protection management system

为进一步完善安全环保管理体系，中国十五冶持续强化制度建设，夯实安全生产管理基础。2024 年，公司重点开展以下工作：

To further improve the safety and environmental management system, 15MCC has continuously strengthened institutional construction and consolidated the foundation of safety production management. In 2024, the Company focused on the following key initiatives:



修订《安全风险分级管控与隐患排查治理管理办法》，明确风险分级标准和隐患排查流程，提升风险预控能力。

Revised the *Measures for Graded Safety Risk Control and Hidden Hazard Investigation and Management*, clarifying risk grading standards and hazard inspection procedures to enhance risk prevention and control capabilities.



修订《安全生产费用提取和使用管理办法》，规范安全投入管理，确保安全生产资金合理使用。

Revised the *Measures for the Allocation and Use of Safety Production Funds*, standardizing the management of safety investments to ensure reasonable use of safety production funds.



修订《安全环保风险抵押金实施办法》，完善风险抵押金提取和使用流程，提升项目风险防控能力。

Revised the *Implementation Measures for Safety and Environmental Protection Risk Deposits*, improving the processes for collecting and using risk deposits to strengthen project risk control capacity.



制定《安全环保总监考核办法（试行）》，压实各级安全环保责任，强化安全环保履职管理。

Formulated the *Assessment Measures for Safety and Environmental Protection Directors (Trial)*, enforcing accountability at all levels and enhancing the management of safety and environmental responsibilities.



修订《建筑工程安全文明施工标准化图册》、编制《露天矿山项目安全文明施工标准化图册》和《矿山竖井项目安全文明施工标准化图册》，推进项目安全文明标准化建设，提升项目整体形象。

Revised the *Standardized Atlas for Safety and Responsible Construction of Building Projects* and compiled the *Standardized Atlas for Safety and Responsible Construction of Open-Pit Mine Projects* and the *Standardized Atlas for Safety and Responsible Construction of Mine Shaft Projects*, promoting standardized safety and responsible construction across projects and improving overall project image.

应急能力培训

Emergency Response Ability Training

中国十五冶持续推进安全生产宣传教育，组织安全生产月、职业健康宣传周等活动，强化员工安全红线意识。通过安全警示教育和应急演练，营造“人人讲安全、个个会应急”的良好氛围，夯实企业安全文化基础。

15MCC continuously advances safety production publicity and education by organizing activities such as Safety Production Month and Occupational Health Awareness Week to strengthen employees' awareness of safety boundaries. Through safety cautionary education and emergency drills, the Company fosters a positive environment where "everyone knows the importance of safety and is capable of emergency response," thereby solidifying the foundation of its corporate safety culture.



安全生产月系列活动
Series of activities during the Safe Production Month

消防培训
Fire-fighting training

安全周例会观看警示视频
Watched cautionary videos at the weekly safety meeting

钢构分公司安全大早会
The morning meeting on safety conducted by the Steel Structure Branch

标准化手册建设

Formulation of Standardization Manual

2024 年 4 月，中国十五冶立足有色金属地下矿山生产实际，联合中国安全生产科学研究院和北京和君咨询有限公司编制了《有色金属地下矿山风险辨识指导手册》《有色地下矿山开采作业指导手册》两本系统性指导文件。

两本手册以管理视图分析法、MECE 原则等理论工具为基础，覆盖地下矿山采掘、运输、通风、供排水、供电、供风、充填等全流程内容。《辨识手册》聚焦作业过程中风险的系统识别、评估及管控措施设计，构建了作业活动全集、危险源 467 项、风险因素 1,521 项的专业识别体系；《作业手册》则聚焦作业现场规范操作，明确设备配置、过程流程及操作标准，确保各类作业场景下的安全落实与风险防控。

该套手册的编制发布，有效提升了矿山安全管理的系统性、标准化与实操性，为企业打造高风险场景下的安全管理体系提供了制度支撑，也为行业提供了可复制推广的实践范式。

In April 2024, based on the actual production situation of non-ferrous metal underground mines, 15MCC collaborated with the China Academy of Work Safety and Hejun Consulting (Beijing) Co., Ltd. to compile two systematic guidance documents: the *Risk Identification Manual for Non-Ferrous Metal Underground Mines* and the *Operational Manual for Underground Mining of Non-Ferrous Metals*.

These manuals are grounded in theoretical methodologies such as the Management View Analysis Method and the MECE principle, covering the entire underground mining process, including excavation, transportation, ventilation, water supply and drainage, power supply, air delivery, and backfilling. *The Risk Identification Manual* focuses on the systematic identification, assessment, and design of control measures for operational risks, building a comprehensive taxonomy of operational activities with 467 identified hazard sources and 1,521 risk factors. *The Operational Manual* emphasizes standardized on-site practices, detailing equipment configurations, process flows, and operational standards to ensure the implementation of safety measures and effective risk control across all operational scenarios.

The publication of these manuals has significantly enhanced the systematization, standardization, and practicality of mine safety management. It provides institutional support for the establishment of a robust safety management system in high-risk environments and offers a replicable and promotable model for the industry.



02

环境篇

Environment

在国家“双碳”目标引领下，绿色发展是时代使命，更是高质量发展的必然选择。中国十五冶始终将生态环境保护作为发展基石，秉持“绿色相随，健康相伴”环保理念，强化环保管理，推进减废降碳，守护绿水青山，为高质量发展筑牢根基，彰显企业责任担当，助力可持续未来。

Under the guidance of China's national "dual carbon" goals, green development is not only a historic mandate but also an inevitable path toward high-quality growth. 15MCC has always regarded ecological and environmental protection as a cornerstone of its development. Upholding the principle of "green development, healthy living," the Company has strengthened its environmental management systems, advanced waste reduction and carbon mitigation, and actively safeguarded the natural environment. These efforts have laid a solid foundation for sustainable and high-quality development while demonstrating the Company's commitment to corporate responsibility.

强化环境管理

Improvement of Environmental Management

中国十五冶坚决贯彻绿色发展理念，锚定“双碳”目标，全面优化环境管理体系，精准把控环境风险，全力推进减废降碳协同增效，为生态文明建设贡献坚实力量。

15MCC resolutely implements the green development vision and aligns its environmental strategies with the "dual carbon" goals. By continuously refining its environmental management systems and enhancing its capabilities in environmental risk control, the Company promotes synergistic improvements in waste reduction and carbon emissions mitigation, contributing meaningfully to China's ecological civilization agenda.

环境管理体系

Environmental Management System

我们严格遵守《中华人民共和国环境保护法》《中华人民共和国固体废物污染环境防治法》《中华人民共和国水污染防治法》《中华人民共和国大气污染防治法》等法律法规，秉持“保护优先、预防为主、综合治理、公众参与、损害担责”的原则，将环境保护理念和实践贯穿于工程建设全过程，推动经济与环境协调发展。通过持续完善环境管理体系，我们确保工程建设与生态保护同步规划、同步推进，实现高质量发展与可持续未来的有机统一。

15MCC strictly complies with applicable environmental laws and regulations, including the *Environmental Protection Law of the People's Republic of China*, the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes*, the *Water Pollution Prevention and Control Law*, and the *Atmospheric Pollution Prevention and Control Law of the People's Republic of China*. Guided by the principles of prioritizing protection, prevention first, integrated governance, public participation, and polluter accountability, the Company embeds environmental awareness and best practices throughout the entire construction process. By continuously improving its environmental management framework, 15MCC ensures that project execution and ecological preservation are planned and advanced in parallel, thus achieving a unified vision of sustainable and high-quality development.

管理机制

Management mechanism

公司以《生态环境保护管理办法》《环境信息报送和审核管理办法》《能效提升行动实施方案》《加快绿色发展推进美丽中国建设实施方案（2024—2027）》等文件为基石，构建了完善的生态环保管理体系。

15MCC has established a comprehensive ecological and environmental protection management system, grounded in key internal documents such as the *Environmental Protection Management Measures*, *Environmental Information Reporting and Review Measures*, *Energy Efficiency Improvement Implementation Plan*, and the *Implementation Plan for Accelerating Green Development and Advancing the Construction of a Beautiful China (2024–2027)*.

组织架构

Organizational structure

公司各级建立健全生态环境保护委员会和生态环境保护管理部门，每年至少召开一次生态环境保护委员会会议，研究部署相关工作，并指导管理部门开展具体落实。

At all levels, 15MCC has set up dedicated Ecological and Environmental Protection Committees and management departments. Each year, at least one committee meeting is convened to review progress, formulate strategies, and guide the execution of key environmental protection tasks across the organization.

项目建设

Project construction

公司严格执行建设项目“三同时”制度，确保环保设施与主体工程同步设计、同步施工、同步投入使用，并依法依规完成环境保护验收评价手续。

The Company strictly adheres to China's "three simultaneities" principle for construction projects, ensuring that environmental protection facilities are designed, built, and commissioned concurrently with the main project works. All projects undergo formal environmental impact assessments and acceptance procedures in compliance with regulatory requirements.

考核追究

Assessment and accountability

公司已将环保考核结果纳入所属单位负责人业绩考核体系，设立激励机制，对环保工作表现突出的单位和个人给予表彰与奖励；同时，完善追责机制，对环保事件快速调查、精准问责。

Environmental performance has been fully integrated into the Company's performance evaluation system for management teams at affiliated units. A reward and recognition mechanism has been put in place to honor outstanding contributions to environmental protection. At the same time, a strengthened accountability system ensures that environmental incidents are investigated promptly and addressed through targeted disciplinary actions.

体系认证

System certification

公司已成功通过 ISO 14001 环境管理体系认证。在日常生产经营中，公司严格遵循该体系的相关规定，积极与国际标准接轨，持续优化管理流程，提升环境效益与经济效益。

15MCC has obtained ISO 14001 Environmental Management System certification. In daily operations, the Company adheres strictly to the ISO framework, aligning its practices with international standards. This approach supports continuous improvement in environmental outcomes and contributes to enhanced economic and operational efficiency.

环保预警及督察 Environmental Warning and Supervision

公司遵循《突发环境事件应急预案》，科学有序高效应对突发环境事件，提高公司处置突发环境事件的能力，并依照《安全环保检查及等级评定办法》和《安全风险分级管控与隐患排查治理管理办法》，规范公司安全环保检查工作，督促公司所属单位履行安全环保职责，及时消除安全环保事故隐患，完善安全环保条件，最大程度的保护人员、环境、财产安全，尽可能降低环境事故的影响。本报告期内，公司未发生重大环境违规事件。

公司建立了完善的安全环保监督检查机制，确保项目管理的规范性和安全性，及时掌握项目动态，协调解决各类问题；每月召开安全环保工作例会，总结经验，部署重点工作，强化安全责任落实；每季度对重点监控项目开展专项检查，深入排查隐患，确保关键项目的安全可控。同时，公司每半年组织一次全面的安全环保大检查，检查前明确通知要求，检查完成后及时下发整改通报，对排名靠后的项目进行严肃处理，并根据实际情况组织复查，确保问题整改到位，形成闭环管理，为公司安全生产和绿色发展提供坚实保障。

The Company follows the *Emergency Response Plan for Environmental Incidents*, ensuring a scientific, orderly, and efficient approach to unexpected environmental emergencies. This framework enhances the Company's capacity to manage environmental incidents effectively. In parallel, 15MCC implements the *Safety and Environmental Inspection and Grading Evaluation Measures* and the *Safety Risk Graded Control and Hazard Identification and Rectification Measures*, which standardize safety and environmental inspections and hold affiliated units accountable for fulfilling their environmental protection responsibilities. Through these mechanisms, the Company works to promptly identify and eliminate potential safety and environmental hazards, improve environmental and safety conditions, and maximize the protection of personnel, property, and the natural environment. These efforts also aim to minimize the impact of environmental incidents. During the Reporting Period, the Company recorded no major environmental violations.

The Company has established a comprehensive safety and environmental supervision and inspection mechanism to ensure standardized and secure project management. This mechanism enables timely tracking of project developments and facilitates the coordination and resolution of various issues. Monthly safety and environmental meetings are convened to review progress, summarize lessons learned, and deploy key tasks, thereby reinforcing accountability for safety performance. Quarterly special inspections are carried out for key monitored projects, focusing on the thorough identification and rectification of potential hazards to ensure operational safety. In addition, the Company organizes a comprehensive safety and environmental inspection every six months. Prior to each inspection, clear instructions and requirements are issued. Upon completion, rectification notices are promptly circulated, and underperforming projects are subject to strict disciplinary actions. Where necessary, follow-up inspections are conducted to verify problem resolution, ensuring a closed-loop management process. This robust system provides a solid foundation for the Company's safe operations and green development.

废弃物与排放 Waste and Emissions

公司严格遵循国家及地方关于污染物排放的法律法规与行业标准，坚持源头治理与过程管控相结合，确保各类污染物稳定达标排放。

The Company strictly adheres to national and local laws, regulations, and industry standards regarding pollutant emissions and combines source treatment with process control to ensure the stable and up-to-standard emissions of various pollutants.



废气管理 Waste gas management

我们的钢构分公司严格遵守《中华人民共和国大气污染防治法》及相关地方性法规，通过源头消减、过程控制、末端治理等方式，实现烟气不直接外排，达到合规排放要求。

The Steel Structure Branch strictly complies with the *Atmospheric Pollution Prevention and Control Law of the People's Republic of China* and relevant local regulations. Through reduction at the source, process control, and end-of-pipe treatment, the Company has achieved non-direct emission of flue gas and met compliance emission requirements.



废水管理 Wastewater management

公司秉持“工业废水不外排，百分百循环利用”的理念，全力推进“工业废水零排放”目标。钢构分公司安装先进污水处理设备，实现生产废水全收集、沉淀处理与循环利用。生活污水接入市政管网集中处理，确保污水规范处置。

The Company adheres to the principle of "zero discharge and 100% recycling of industrial wastewater" and is fully committed to achieving the goal of zero industrial wastewater discharge. The Steel Structure Branch has installed advanced wastewater treatment facilities to ensure that all production wastewater is collected, treated through sedimentation, and recycled for reuse. Domestic sewage is connected to the municipal pipeline network for centralized treatment, ensuring compliant and standardized wastewater disposal.



固体废弃物及危险废弃物管理
Solid Waste and Hazardous Waste Management

公司在生产和建设过程中产生的一般固体废弃物与危险废弃物，均严格依照《一般工业固体废弃物贮存和填埋污染物控制标准》《危险物贮存污染控制标准》《危险废物转移联单管理办法》等有关规定，对废弃物合理存放、处置和回收利用，减少对环境的影响。

The Company strictly follows relevant regulations such as the *Pollution Control Standards for Storage and Landfilling of General Industrial Solid Waste*, the *Pollution Control Standards for Hazardous Waste Storage*, and the *Hazardous Waste Transfer Manifests Management Measures* to ensure that all general solid waste and hazardous waste generated during production and construction are properly stored, disposed of, and recycled. These measures aim to minimize environmental impact and promote responsible waste management practices.

指标 Indicators	2024	单位 Unit
一般固废产生量 General solid waste generated	41.5	吨 Ton
一般固废处置率 General solid waste disposal rate	100	%
危险废弃物产生量 Hazardous waste generated	11.7	吨 Ton
危险废弃物处置率 Hazardous waste disposal rate	100	%



提升环保意识
Enhance Environmental Awareness

公司高度重视绿色低碳理念的培育和绿色生产专业能力的提升，建立了完善的环保培训制度，并积极开展各类教育培训活动。公司通过组织“世界环境日”“生态环境日”“全国低碳日”和“节能宣传周”等主题活动，进一步增强全体员工绿色环保意识和实践能力。

The Company attaches great importance to cultivating the concept of green and low-carbon development and improving professional capabilities in green production. It has established a comprehensive environmental protection training system and actively conducts various education and training activities. By organizing themed activities such as "World Environment Day," "Ecological Environment Day," "National Low-Carbon Day," and "Energy Conservation Publicity Week," the Company further enhances the green environmental protection awareness and practical abilities of all employees.

案例 Case “世界环境日”“生态环境日”主题活动
Themed Activities of "World Environment Day" and "Ecological Environment Day"

公司围绕世界环境日和生态环境日，开展了一系列环保活动。通过宣传、专家指导、张贴海报等方式普及环保知识，提升员工环保意识。围绕绿色转型主题，组织学习习近平生态文明思想，营造绿色发展、生态文明的良好氛围。

The Company carried out a series of environmental protection activities around World Environment Day and Ecological Environment Day. It popularized environmental protection knowledge through publicity, expert guidance, and poster posting to enhance employees' environmental awareness. Centering on the theme of green transformation, the Company organized the study of Xi Jinping Thought on Ecological Civilization to create a good atmosphere for green development and ecological civilization.



世界环境日
World Environment Day



生态环境日
Ecological Environment Day

推动节能减排

Promotion of Energy Conservation and Emission Reduction

中国十五冶致力于构建低碳生产和可持续发展模式，加快推进“双碳”工作。公司积极探索节能减排途径，优化资源和能源管理，推动清洁能源应用，保护生物多样性。

15MCC is committed to building a low-carbon production and sustainable development model and accelerating the implementation of the "dual carbon" goals. The Company actively explores ways to conserve energy and reduce emissions, optimizes resource and energy management, promotes the application of clean energy, and protects biodiversity.

温室气体排放¹

GHG Emissions

2024 年，综合能源消费量为 4,676 吨标准煤；万元产值（收入）综合能耗为 0.0058 吨标准煤 / 万元；温室气体排放量为 12,322 吨二氧化碳排放当量，是项目建设施工过程中能源消耗产生的碳排放；温室气体排放密度为 0.0152 吨二氧化碳排放当量 / 万元产值（收入）。

In 2024, the Company's total energy consumption reached 4,676 tons of standard coal. The total energy consumption per RMB 10 thousand revenue was 0.0058 tons of standard coal equivalent (tce). Total GHG emissions amounted to 12,322 tons of carbon dioxide equivalent (tCO₂e), primarily resulting from energy consumption during project construction and execution. The GHG emission intensity was 0.0152 tCO₂e per RMB 10 thousand revenue.

指标 Indicators	2023	2024	单位 Unit
综合能源消耗量 Total energy consumption	4,743	4,676	吨标准煤 tce
万元产值（收入）综合能耗 Total energy consumption per RMB 10 thousand revenue	0.0058	0.0058	吨标准煤 / 万元产值（收入） tce/RMB 10 thousand revenue
温室气体排放量 GHG emissions	12,795	12,322	吨二氧化碳排放当量 tCO ₂ e
温室气体排放密度 GHG emission intensity	0.0156	0.0152	吨二氧化碳排放当量 / 万元产值（收入） tCO ₂ e/RMB 10 thousand revenue

¹2024 年度温室气体排放及相关能耗数据的披露指标体系进行了调整，旨在与集团可持续发展报告标准保持一致，并更全面地反映公司的能源与环境绩效。且自本年度起，报告披露的环境绩效指标统计覆盖范围统一调整为国内，部分 2023 年环境绩效数据因口径变化与往年报告披露数值有所差异。

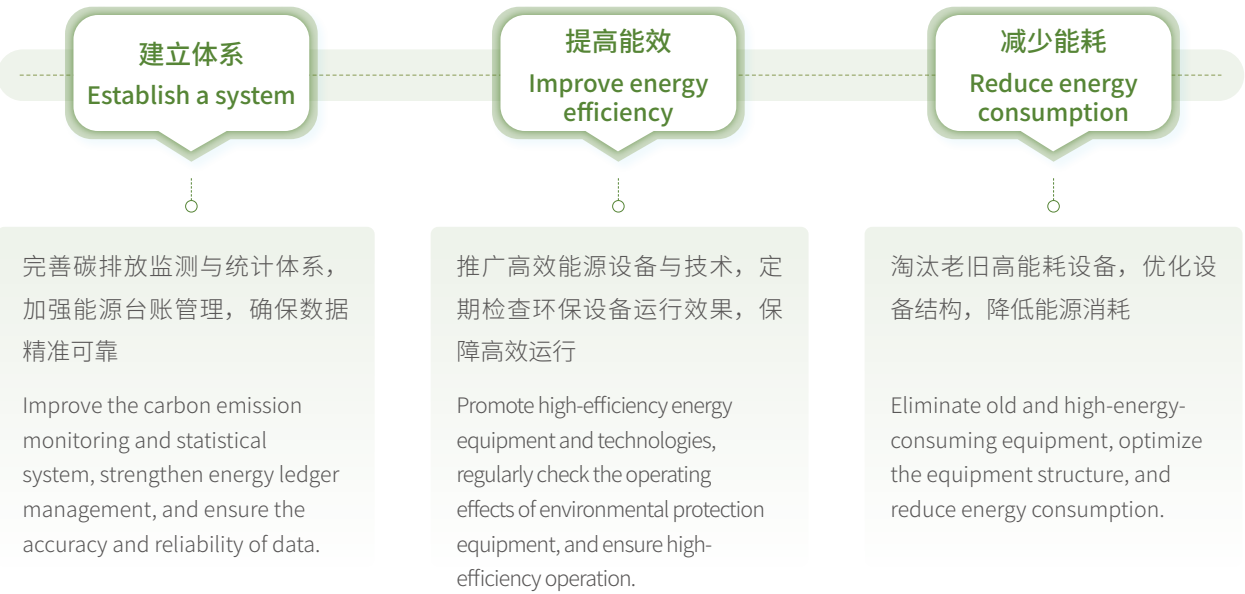
The disclosure indicator system for GHG emissions and relevant energy consumption data for the year 2024 has been adjusted to align with the reporting standards of the Group's Sustainability Report and more comprehensively reflect the Company's energy and environmental performance. Starting from 2024, the statistical coverage of the environmental performance indicators disclosed in the Report has been uniformly adjusted to domestic operations. Due to the change in the statistical scope, some environmental performance data for 2023 differ from the values disclosed in previous Reports.

节能减排目标

Energy Conservation and Emission Reduction Goals

为高效利用能源、降低能耗并提升经济效益，公司严格遵循集团的节能减排要求。我们建立了节能减排统计台账，定期收集所属单位的相关数据和资料，并依据节能环保指标，对所属单位的节能减排情况进行季度考核，确保各项措施落实到位。本报告期内，我们采取以下措施，逐步推进节能减排相关工作：

To improve energy efficiency, reduce consumption, and enhance economic performance, the Company strictly adhered to the Group's energy conservation and emission reduction requirements. We established a dedicated energy-saving and emissions reduction ledger to regularly collect relevant data and documentation from affiliated units. Based on environmental and energy efficiency indicators, we conducted quarterly performance assessments to ensure that all measures were effectively implemented. During the Reporting Period, the Company adopted the following measures to steadily advance energy-saving and emissions reduction efforts:



资源使用与管理

Resource Use and Management

我们坚信资源的高效利用与科学管理是推动可持续发展的核心要素。我们通过创新工程管理方式与工艺，优化绿色工程组织设计，强化文明工程管理，持续提升资源利用效率，有效减少环境污染与能源消耗，为实现高质量发展奠定坚实基础。

We firmly believe that the efficient use and scientific management of resources are the core elements for promoting sustainable development. Through innovative project management methods and processes, optimizing the organizational design of green projects, and strengthening the management of civilized projects, we continuously improve resource utilization efficiency and effectively reduce environmental pollution and energy consumption, laying a solid foundation for high-quality development.

清洁生产

Clean production

在生产过程中，我们积极践行清洁生产理念，致力于实现资源利用的高效化与循环化、生产过程的清洁化以及废物的资源化。以钢结构生产为例，通过引入先进生产工艺和设备，我们有效降低能源消耗与废气排放，推动绿色生产。

During the production process, we actively practice the concept of cleaner production, striving to achieve efficient and circular resource utilization, cleaner manufacturing processes, and the resource recovery of waste. Taking steel structure production as an example, we have introduced advanced technologies and equipment to effectively reduce energy consumption and exhaust emissions, thereby promoting environmentally friendly manufacturing.

绿色办公

Green office

公司推行节水节电措施，日常提醒关闭水电设备，安保巡查时确保关闭，张贴节能标识，更换节能灯具，并在员工宿舍安装空气能设备。

The Company implements water-saving and electricity-saving measures, reminds employees to turn off water and electricity equipment in daily life, ensures that they are turned off during security patrols, posts energy-saving signs, replaces energy-saving lamps, and installs air-energy equipment in employee dormitories.

低碳原材料采购

Low-carbon raw material procurement

我们优先选择低碳排放的建筑工程原材料，从而在工程全寿命周期中降低项目对环境的整体影响，减少碳足迹，推动绿色可持续发展。

We give priority to the procurement of construction project raw materials with low carbon emissions, thereby reducing the overall environmental impact of the project and the carbon footprint during the entire life cycle of the project and promoting green and sustainable development.

案例 Case

绿色施工示范工程 Green Construction Demonstration Project

2024 年，“临洮县日日顺智慧物流产业项目（一期）工程”和“威海恒邦化工有限公司含金多金属矿”有价元素综合回收技术改造二期项目”获评绿色施工示范工程。

项目部通过成立绿色施工领导小组、建立环保管理检查制度、每周召开工作例会，确保绿色施工措施落地。施工现场设置建筑垃圾分类回收区，分类收集拆除物（如混凝土、砖块、木材）；在钢结构施工中，回收利用钢材边角料制作小型构件；建设雨水收集系统，用于降尘、绿化灌溉和车辆冲洗。同时，公司开展“硬泡聚氨酯喷涂保温技术”“钢筋直螺纹套筒连接技术”“太阳能光伏发电技术”等专项研究，形成企业特色绿色施工技术体系，推动“四节一环保”措施的深入应用。

In 2024, the "RRS Smart Logistics Industry Project (Phase I) in Lintao County" and the "Phase II Project of Comprehensive Recovery Technology Transformation of Valuable Elements in Gold-Bearing Polymetallic Ore of Weihai Hengbang Chemical Co., Ltd." were rated as green construction demonstration projects.

Project departments ensured the implementation of green construction measures by establishing dedicated leadership teams, setting up environmental management inspection systems, and holding weekly work meetings. On construction sites, designated areas were created for sorting and recycling construction waste, with materials such as concrete, bricks, and wood collected separately after demolition. In steel structure construction, scrap steel was repurposed into small components. Rainwater harvesting systems were installed for dust suppression, landscape irrigation, and vehicle cleaning. Meanwhile, the Company carried out specialized research on technologies such as "rigid polyurethane foam spray insulation," "rebar mechanical splicing with threaded couplers," and "solar photovoltaic power generation." These efforts led to the development of a proprietary green construction technology system, advancing the in-depth application of the "Four Savings and One Environmental Protection" (energy, land, water, and materials conservation, plus environmental protection) initiative.



临洮县日日顺智慧物流产业项目（一期）工程
RRS Smart Logistics Industry Project (Phase I) in Lintao County



威海恒邦化工有限公司含金多金属矿有价元素综合回收技术改造二期项目
Phase II Project of Comprehensive Recovery Technology Transformation of Valuable Elements in Gold-Bearing Polymetallic Ore of Weihai Hengbang Chemical Co., Ltd.

清洁能源研究

Research on Clean Energy

我们在推进清洁能源研究方面采取了积极措施。根据《加快绿色发展推进美丽中国建设实施方案（2024—2027）》，公司致力于推动绿色低碳转型，将清洁能源的使用纳入重要发展方向。

We have taken active measures to promote clean energy research. According to the *Implementation Plan for Accelerating Green Development and Advancing the Construction of a Beautiful China (2024–2027)*, the Company is committed to promoting green and low-carbon transformation and incorporating the use of clean energy into an important development direction.

在项目设计阶段 During the project design phase

公司注重选用具有隔热、隔音和保温性能的材料，采用自然通风、自然采光等节能设计理念，并安装光伏发电系统和太阳能热水器等可再生能源设备，以减少对传统能源的依赖。

The Company focuses on selecting materials with heat insulation, sound insulation, and thermal insulation properties. It adopts energy-saving design concepts such as natural ventilation and natural lighting, and installs renewable energy equipment such as photovoltaic power generation systems and solar water heaters to reduce dependence on traditional energy sources.

在施工阶段 During the construction phase

公司融入“四节一环保”的要求，采用环保材料和技术，优化施工工艺，减少施工过程中的能源消耗和环境污染。此外，公司还通过引进 MES 生产管理系统，对钢结构制作厂进行监控管理改造，实现节能减排目标，进一步推动清洁能源在生产过程中的应用。

The Company incorporates the requirements of "four savings and one environmental protection." It uses environmentally friendly materials and technologies, optimizes construction processes, and reduces energy consumption and environmental pollution during construction. In addition, the Company has introduced the MES production management system to monitor, manage, and transform the steel structure manufacturing plant, achieving the goals of energy conservation and emission reduction and further promoting the application of clean energy in the production process.

在有色金属矿产资源开发过程中 In the process of non-ferrous metal mineral resource development

公司聚焦构建绿色低碳新优势，积极推进“矿山冶炼+光伏储能”产业融合模式研究，系统梳理行业需求与应用场景，探索清洁能源在矿山投资、建设与运维全周期中的集成路径，为矿区能源结构优化与减碳目标实现提供专业解决方案。

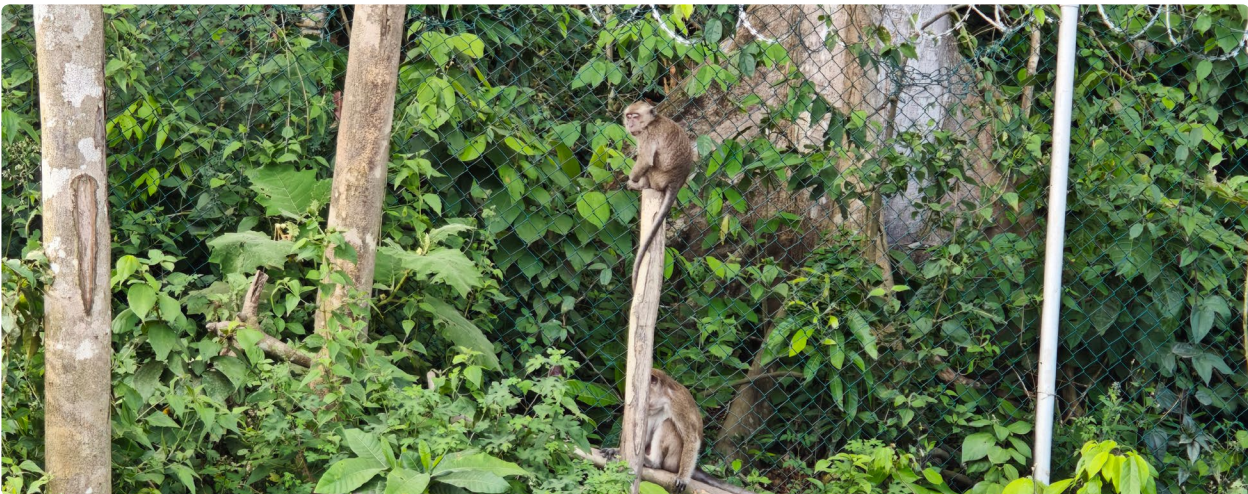
The Company focuses on building new green and low-carbon advantages. It actively promotes the research on the industrial integration model of "mine smelting + photovoltaic energy storage," systematically sorts out industry demands and application scenarios, and explores the integrated path of clean energy in the entire cycle of mine investment, construction, and operation and maintenance, providing professional solutions for optimizing the energy structure and achieving carbon reduction goals in mining areas.

守护生物多样性

Biodiversity Protection

生物多样性是地球生态平衡的基石，也是人类可持续发展的关键。中国十五冶在项目工程建设中，将生物多样性保护理念融入实践。公司不仅在生态保护措施中明确生物多样性保护要求，还在项目建设中全面评估其对生物多样性的影响，识别潜在风险点并制定应对措施。同时，公司积极推进绿色矿山建设，踊跃参与生态修复项目，为提升生态环境质量和构建地球生命共同体贡献力量。公司持续通过组织生物多样性主题宣讲、播放生态环保纪录片等形式，向员工传递“尊重自然、顺应自然、保护自然”的生态文明理念。

Biodiversity forms the foundation of Earth's ecological balance and is essential for sustainable human development. At 15MCC, we embed biodiversity conservation deeply into our project execution. Our environmental protection measures explicitly address biodiversity preservation, while comprehensive assessments are conducted to evaluate the impact of construction activities on local ecosystems. We proactively identify potential risks and implement targeted mitigation strategies to minimize ecological disruption. Furthermore, 15MCC is committed to advancing green mining practices and actively participates in ecological restoration projects, contributing to enhanced environmental quality and fostering a shared community of life on our planet. To cultivate a strong culture of environmental stewardship, we regularly organize biodiversity awareness programs and screen environmental documentaries, promoting the principles of respecting, harmonizing with, and safeguarding nature throughout our workforce.



矿山生态修复
Ecological Restoration of Mine

案例 Case 缅甸达贡山镍矿绿色生态修复
Green Ecological Restoration of Dagongshan Nickel Mine in Myanmar

自 2016 年 5 月起，公司积极推进缅甸达贡山镍矿复垦绿化工作，持续种植包括金合欢树苗、马占相思树苗、毛竹和芒果树等品种在内的各种植被，成活率均达到 80% 以上，成效显著。

Since May 2016, the Company has actively promoted the reclamation and greening work of the Dagongshan Nickel Mine in Myanmar. It has continuously planted various vegetation, including acacia saplings, Acacia mangium saplings, moso bamboo, and mango trees, with a survival rate of over 80%, delivering remarkable results.

	截至 2023 年底 As of the end of 2023	截至 2024 年底 As of the end of 2024	增长率 Growth rate
种植金合欢树苗（棵） The number of acacia saplings planted	4,877	6,056	24.17%
种植马占相思树苗（棵） The number of acacia mangium saplings planted	4,612	4,923	6.74%
种植毛竹（棵） The number of moso bamboo planted	1,800	1,837	2.06%
种植芒果树（棵） The number of mango trees planted	106	106	-
在排土场和低品位矿场边坡人工种草（平方米） Grass planted on the slopes of the dump site and low-grade mine (square meters)	108,300	116,600	7.66%



03

社会篇

Society



中国十五冶坚持以人为本，持续增强员工获得感、归属感和幸福感，推动构建更加安全、健康、成长型的职场环境。公司强化人才培养体系，完善职业发展机制，注重员工心理关怀与多元包容，打造团结奋进的人才生态。同时，聚焦社会责任履行，积极投身乡村振兴、公益援助与属地共建，凝聚高质量发展的社会合力，全面展现央企担当。

15MCC upholds a people-centered approach, continuously enhancing employees' sense of fulfillment, belonging, and well-being, while fostering a safer, healthier, and growth-oriented workplace environment. The Company strengthens its talent development system and improves career progression mechanisms, placing strong emphasis on employee psychological care and diversity and inclusion to cultivate a united and motivated talent ecosystem. At the same time, 15MCC focuses on fulfilling its social responsibilities by actively engaging in rural revitalization, public welfare initiatives, and community co-development. Through these efforts, the Company builds a broad social consensus for high-quality development, fully embodying the commitment and responsibility of a central state-owned enterprise.

质量管理 Quality Management

中国十五冶严格遵守《中华人民共和国产品质量法》及行业相关法律法规与标准，秉持“质量就是生命，产品代表人品”的理念，坚守“今天的质和服务就是明天的市场”的质量方针，以卓越品质赢得客户信任，助力企业可持续发展。

15MCC strictly abides by the *Product Quality Law of the People's Republic of China* and relevant industry laws, regulations, and standards. Upholding the concept of "quality is life, and products reflect character" and adhering to the quality policy of "today's quality and service are tomorrow's market," the Company wins customers' trust with excellent quality and promotes the sustainable development of the enterprise.

质量管理体系 Quality Management System

我们制定了《项目质量管理办法》《工程创优管理办法》等相关制度，通过这些制度的实施，进一步规范了项目质量管理流程，确保工程质量的可靠性和稳定性。同时，公司深入贯彻 ISO 9001 质量管理体系，运用 PDCA 循环原理，对工程建设到质保回访的全过程进行精细化管理。从项目策划到施工过程控制，再到竣工验收及后续服务，每一个环节都严格把控，确保各环节受控并持续优化。

We have formulated relevant systems such as the *Project Quality Management Measures* and the *Management Measures for Engineering Excellence*. Through the implementation of these systems, the project Quality Management process is further standardized to ensure the reliability and stability of project quality. Meanwhile, the Company thoroughly implements the ISO 9001 Quality Management System and applies the PDCA cycle principle to conduct meticulous management throughout the entire process—from engineering construction to quality assurance follow-up. Every stage, from project planning and construction process control to final acceptance and subsequent services, is rigorously monitored to ensure effective control and continuous improvement across all links.

案例 Case 工程技术质量大检查 Comprehensive Inspection on Engineering Technology Quality

2024 年 6 月至 7 月，公司组织开展了年度工程技术质量大检查，覆盖 14 个在建项目（厂）。此次检查对现场实体质量、质量管理资料及技术内业资料进行了全面审查。检查结果已在全公司范围内进行通报，各项目部已根据整改要求，在规定时限内完成问题整改，确保工程质量符合标准。

From June to July 2024, the Company organized and carried out an annual large-scale inspection of engineering technology and quality, covering 14 ongoing projects (factories). This inspection comprehensively reviewed the on-site physical quality, Quality Management data, and technical internal data. The inspection results have been reported across the Company. Each project department has completed the rectification of the problems within the specified time limit according to the rectification requirements to ensure that the project quality meets the standards.



质量检查
Quality inspection

案例 Case 质量控制课题管理助力质量提升 Quality Control Topic Management Helps Improve Quality

为推动项目管理精细化，公司每年初组织所属单位制定质量控制课题清单，指导项目部开展年度质量攻关。2024 年共形成质量控制成果 32 篇，评选出企业级优秀质量控制成果 15 篇，并推荐至外部协会，获省部级奖项 18 项，切实发挥质量控制管理在提质增效中的支撑作用。

To promote refined project management, the Company organizes its affiliated units each year to develop a quality control topics list, guiding project teams in their annual quality improvement initiatives. In 2024, a total of 32 quality control achievements were produced, with 15 outstanding enterprise-level results selected and recommended to external associations. These efforts earned 18 provincial and ministerial awards, effectively demonstrating the supportive role of quality control management in enhancing quality and efficiency.

2024 年 10 月，公司三位一体体系管理顺利通过第三方体系监督审核。

In October 2024, the Company's three-in-one system management passed the third-party system supervision audit.



2024 年度中国十五冶关键质量荣誉
Key Quality Honors of 15MCC in 2024

国家级优质工程奖 1 项
One National High-quality Project Award

龙穴厂区室内总装及分段总组等车间工程
获得国家钢结构金奖

The workshop project of indoor general assembly and subsection assembly in Longxue Plant won the National Gold Award for Steel Structures.



省部级优质工程 4 项
Four Provincial and Ministerial High-quality Projects



刚果（金）TFM 项目 10K 扩产增效项目
获得有色金属工业优质工程奖

The 10K expansion and efficiency improvement project of the TFM project in the DRC won the High-quality Project Award for the Non-ferrous Metal Industry.



黄石市现代有轨电车正线配套道路立交工程
获得湖北省市政示范工程奖

The supporting road interchange project of the main line of the modern tram in Huangshi City won the Hubei Provincial Municipal Demonstration Project Award.

汪仁污水处理厂
提标改造及扩能工程
获得湖北省市政示范工程奖

The upgrading, renovation, and expansion project of Wangren Sewage Treatment Plant won the Hubei Provincial Municipal Demonstration Project Award.



40 万吨高纯阴极铜清洁生产项目
熔炼主厂房钢结构制作安装工程
获得优秀焊接工程奖

The steel structure fabrication and installation project of the main smelting workshop of the 400,000-ton high-purity cathode copper clean production project won the Excellent Welding Project Award.

Two Municipal High-quality Projects



5G 智能终端用高能量密度锂离子电池生产线项目 - 综合楼
获得肇庆市建设工程优质结构奖

The comprehensive building of the high-energy-density lithium-ion battery production line project for 5G intelligent terminals won the High-quality Structural Award for Construction Projects in Zhaoqing City.



贵溪市箕山永泰生活中心项目
获得鹰潭市优质建设工程奖

The Jishan Yongtai Living Center Project in Guixi City won the High-quality Construction Project Award in Yingtan City.

质量培训教育
Quality Training and Education

中国十五冶注重质量文化建设，通过组织各类质量培训，增强员工质量意识，提升管理团队专业素养，夯实高质量发展基础。每年 9 月，公司开展质量月活动，以知识竞赛、征文、访谈和 QC 质量控制改善等多种形式，营造全员关注质量的良好氛围。

15MCC attaches great importance to the construction of quality culture. By organizing various quality training programs, it enhances employees' quality awareness, improves the professional quality of the management team, and consolidates the foundation for high-quality development. Every September, the Company carries out a Quality Month activity, creating a good atmosphere of full-staff attention to quality through various forms such as knowledge competitions, essay writing, interviews, and QC quality control improvements.

案例 Case 质量管理培训活动
Quality Management Training Activities

报告期内，公司组织开展了项目总工培训，旨在提升质量和技术管理能力；同时还开展了项目班子培训，进一步强化项目管理团队的质量管理意识和综合素养。

During the Reporting Period, the Company organized project chief engineer training to improve quality and technology management capabilities. At the same time, it also carried out project management team training to further strengthen the Quality Management awareness and comprehensive quality of the project management team.



项目经理、总工程师培训班
Training courses for project managers and chief engineers

供应链管理

Supply Chain Management

中国十五冶持续优化采购管理体系，完善采购文件标准化流程，加强采购人才队伍建设，提升整体采购管理水平。公司严格把控供应商准入质量，确保供应链稳定可靠。通过数字化手段，我们保障采购流程公平、公正、公开，推进阳光采购，强化采购风险管控，保障原材料及人力稳定供应。同时，公司积极与供应商建立长期稳定、可持续发展的伙伴关系，优化供应链管理，提升运营效率，增强供应链韧性，为高质量发展奠定坚实基础。

15MCC continuously optimizes the procurement management system, improves the standardized process of procurement documents, strengthens the construction of the procurement talent team, and enhances the overall procurement management level. The Company strictly controls the access quality of suppliers to ensure the stability and reliability of the supply chain. Through digital means, we ensure that the procurement process is fair, just, and open to promote sunshine procurement, strengthen procurement risk management and control, and ensure the stable supply of raw materials and human resources. At the same time, the Company actively establishes long-term, stable, and sustainable partnerships with suppliers, optimizes supply chain management, improves operational efficiency, enhances supply chain resilience, and lays a solid foundation for high-quality development.

公司制定了《供应商管理办法》，明确要求分包商具备质量、安全、环保三体系认证，具有良好税收和社会保障资金缴纳记录，且未被列入失信被执行人员名单。同时，公司定期开展管理办法宣贯培训，强化分包商合规意识，筑牢供应链管理基础。

The Company has formulated the *Supplier Management Measures*, which require subcontractors to possess certifications for quality, safety, and environmental management systems. Subcontractors must also maintain good records of tax payments and social security contributions and must not be listed as dishonest persons subject to enforcement. Additionally, the Company regularly conducts training sessions to promote these management measures, strengthening subcontractors' compliance awareness and reinforcing the foundation of supply chain management.

我们秉持“严格准入、分类分级、动态考核、优胜劣汰”的原则，依据《供应商管理办法》《供应商使用手册》等制度文件，形成了一支稳定且富有竞争力的合格供应商队伍。

We adhere to the principles of "strict admission, classification and grading, dynamic assessment, and survival of the fittest." Based on the regulations, such as the *Supplier Management Measures* and *Supplier Engagement Manual*, we have established a stable and competitive pool of qualified suppliers.



我们不断强化对供应商的审查与考核，持续跟踪并反馈供应商的履约及质量情况，严格执行供应商的准入、选用与退出流程。公司采用月度动态考核与年度综合评价相结合的机制，对供应商进行全面审查，并将考核评价结果应用于后续采购活动，确保供应商管理的科学性与有效性。

We continuously strengthen the review and evaluation of suppliers by closely monitoring and providing feedback on their performance and quality. The Company strictly enforces supplier admission, selection, and exit procedures. A dual mechanism combining monthly dynamic assessments with annual comprehensive evaluations is applied to ensure a thorough review of suppliers. The evaluation results are directly integrated into subsequent procurement activities, ensuring scientific and effective supplier management.

为保障合同履行廉洁诚信，防范违法违纪行为，保护各方合法权益，我们依据国家法律法规及廉洁从业规定，制定了廉洁协议书，明确双方共同及各自的责任与义务，以及违约责任。

To ensure the integrity and honesty of contract performance, prevent illegal and disciplinary acts, and protect the legitimate rights and interests of all parties, we have formulated an integrity agreement based on national laws and regulations and integrity practice regulations, defining the common and respective responsibilities and obligations of both parties, as well as liability for breach of contract.

我们推进绿色采购，优先选择全寿命周期低碳排放的物资、设备。我们要求投标人具备有效的质量、环境和职业健康安全管理体系证书，并在与项目合作中表现突出的供应商建立战略关系。

We promote green procurement and give priority to materials and equipment with low carbon emissions throughout their life cycles. We require bidders to have valid certificates for quality, environmental, and occupational health and safety management systems and establish strategic relationships with suppliers that have outstanding performance in project cooperation.

项目履约

Project Performance

2024 年，中国十五冶聚焦服务国家重大战略和区域协调发展，持续强化重点工程全过程管理，全面提升资源统筹与履约保障能力。公司围绕重点区域基础设施、资源能源工程、绿色低碳产业等核心领域，着力打造一批有影响力、有带动性的标志性工程。

在项目履约方面，公司全年在建项目 84 个，新签项目 50 个，竣工交付项目 64 个，涵盖矿产资源开发、交通基础设施、绿色建筑等多个领域。重点项目包括鄂州机场高速二期项目、中稀广西稀土有限公司广西岑溪市糯垌稀土矿水冶二车间 EPC 工程总承包项目、赫章猪拱塘铅锌矿项目等，形成了一批代表公司工程能力水平的标杆工程。

In 2024, 15MCC focused on serving major national strategies and regional coordinated development, continuously strengthened the whole-process management of key projects, and comprehensively improved the ability of resource coordination and performance guarantee. The Company focused on core areas such as infrastructure in key regions, resource and energy projects, and green and low-carbon industries, and worked to build a number of iconic projects with influence and driving force.

In terms of project performance, the Company had 84 ongoing projects, secured 50 new projects, and completed and delivered 64 projects throughout the year, covering multiple fields such as mineral resource development, transportation infrastructure, and green buildings. Key projects included the Ezhou Airport Expressway Phase II, the EPC general contracting project for the Hydrometallurgical Workshop II at the Nuodong Rare Earth Mine of China Rare Earth Guangxi Co., Ltd. in Cenxi City, Guangxi, and the Hezhang Zhu Gongtang Lead-Zinc Mine Project. These projects have become benchmark works that showcase the Company's engineering capabilities.



案例 Case 高效履约工程项目
High-efficiency Project Performance

2024 年，中国十五冶承接中稀广西岑溪市糯垌稀土矿水冶二车间项目，历时 125 天顺利完工。该项目依山而建、地形复杂，工期紧张，首次引入深锥浓密机用于稀土水冶除杂与沉淀，具备一定技术创新性。项目围绕混合稀土碳酸盐年产 4,500 吨产能目标，构建了覆盖浸出、除杂、沉淀、压滤、尾泥处置等环节的完整水冶工艺流程，展现了公司的快速履约能力。



项目多点位施工
Multi-point construction of a project

In 2024, 15MCC completed the Hydrometallurgical Workshop II project at the Nuodong Rare Earth Mine in Cenxi City, Guangxi—undertaken for China Rare Earth Guangxi—within just 125 days. Constructed on a complex mountainous terrain and under a tight schedule, the project marked the first use of a deep cone thickener for impurity removal and precipitation in rare earth hydrometallurgy, representing a noteworthy technological innovation. Centered on achieving an annual production capacity of 4,500 tons of mixed rare earth carbonates, the project established a complete hydrometallurgical process covering leaching, impurity removal, precipitation, filtration, and tailings treatment, demonstrating the Company's strong capacity for rapid project delivery.



项目完成全景图
Panoramic view of a completed project

在资源开发方面，公司围绕“增储上产”核心战略，持续推动矿山采掘能力提升，构建资源保障支撑体系。2024 年，公司完成矿石采掘总量 7,640.11 万吨，较 2023 年增长 15.3%，其中铜钴矿采掘 4,144.52 万吨，石料采掘 3,433.59 万吨，实现采掘能力与重点工程落地协同推进。

未来，公司将继续加快重点项目履约进度，强化矿产资源整合能力，助力形成“项目带动+资源保障”的可持续发展格局，提升服务国家战略和行业发展的综合能力。根据集团公司制定的资源增储上产专项行动实施方案，我公司积极开拓“工程换资源”业务，成功落地瑞达湿法冶炼厂项目，作为公司第一个“工程换资源”项目，2024 年已完成初步设计、施工组织、设计和设备采购等关键准备，为项目如期启动和后续投产奠定了坚实基础。中国十五冶将持续推动资源开发领域高质量“走出去”，不断增强国际工程履约能力，打造更多具有影响力的境外标志性项目。

In terms of resource development, the Company focused on the core strategy of "increasing reserves and production," continuously promoted the improvement of mine excavation capabilities, and established a resource guarantee support system. In 2024, the Company completed a total of 7,640.11 million tons of ore excavation, a 15.3% increase compared with 2023. In breakdown, 4,144.52 million tons of copper-cobalt ore and 3,433.59 million tons of stone were excavated, achieving the coordinated promotion of excavation capabilities and the implementation of key projects.

Looking ahead, 15MCC will continue to accelerate the delivery of key projects, strengthen its capabilities in mineral resource integration, and foster a sustainable development model driven by "project execution + resource security." These efforts aim to enhance the Company's ability to serve national strategies and support industry advancement. In alignment with the resource expansion and production enhancement initiative outlined by the Group, 15MCC has actively explored "engineering-for-resources" models. The successful launch of the Ruida Hydrometallurgical Plant project—its first such initiative—marks a strategic breakthrough. In 2024, the Company completed key preparatory work, including preliminary design, construction planning, and equipment procurement, laying a solid foundation for timely project initiation and future commissioning. 15MCC will continue to promote high-quality overseas expansion in the resource development sector, further strengthening its international project execution capabilities and delivering more influential flagship projects abroad.

精进客户服务 Enhancement of Customer Service

中国十五冶秉持“客户至上”的服务理念，层层落实售后责任，积极回应产品质量反馈，持续优化产品与服务品质。公司致力于确保服务流程的标准化、规范化和定制化，全力提升客户体验，切实履行“与客户共发展”的使命。

15MCC upholds a "customer-first" service philosophy, ensuring clear accountability at every level of after-sales support. The Company responds proactively to product quality feedback and continuously enhances both product and service standards. Committed to standardized, regulated, and customized service processes, 15MCC strives to elevate the customer experience and faithfully fulfills its corporate mission of "shared development with clients."



投诉处理机制 Complaint Handling Mechanism

我们秉持“以客户为中心”的理念，构建了客户投诉的闭环管理体系，覆盖投诉确认、转化与处理全流程。对外，我们快速响应客户需求，高效整改问题；对内，推动建设与研发持续提升，优化工作方法，全方位提升客户满意度与服务质量。

Upholding a "clients-centric" philosophy, we have established a closed-loop customer complaint management system that covers the entire process from complaint confirmation to resolution and follow-up. Externally, we respond promptly to client needs and implement corrective actions efficiently. Internally, we drive continuous improvement in construction, R&D, and workflow optimization, aiming to comprehensively enhance customer satisfaction and service quality.

投诉处理流程 Complaint handling process



信息确认（1 天内） Confirm information (within 1 day)

接收甲方及上级单位发来的质量投诉，项目总工拟定意见，项目经理审核，下发项目质量部门。

Receive quality complaints from the client and upper level authorities, with the project chief engineer formulating opinions, the project manager reviewing, and then issuing to the project quality department.



问题核实（2 天内） Verify questions (within 2 days)

核实：对现场情况进行核实，查明问题产生原因。
编制：编写《投诉情况说明书》。
审核：项目总工审核。

Verification: Verify the situation on site and determine the cause of the problem.
Compilation: Prepare the Complaint Situation Explanation Letter.
Review: The project chief engineer reviews it.



编制方案（2 天内） Compile the plan (within 2 days)

编制整改方案：内容包括问题描述、问题产生原因、整改措施、责任人及时间要求、验证人等。
审核审批：项目总工审核，项目经理审批。
交底：交底人为编制人，被交底人为实施人员。

Formulate a rectification plan: the content includes problem description, cause of the problem, rectification measures, responsible person and time requirements, verifier, etc.
Review and approval: reviewed by the project chief engineer and approved by the project manager.
Briefing: the person giving the briefing is the compiler, and the person receiving the briefing is the implementer.



监督验收（7 天内） Supervise and accept (within 7 days)

实施：由项目工程部门安排责任单位实施。
监督与验收：对整改过程进行全程监督和验收，填写《投诉处理记录表》，并将整改结果报送至上级单位的相关职能部门。

Implementation: the project engineering department arranges for the responsible unit to carry out the implementation.
Supervision and acceptance: supervise and accept the rectification process, fill in the Complaint Handling Record Form and report the rectification results to the relevant departments of the higher-level authorities.

质保追踪服务

Quality Assurance and Tracking Service

为确保项目建成后服务管理与质量维护的高效性，公司领导定期带队走访客户单位，及时获取客户需求并保持良好合作关系。在合同项目质保期内，各所属单位每年开展一次客户回访。若项目出现质量问题，项目部将迅速安排人员处理，确保服务质量满足客户期待。

To ensure efficient post-completion service management and quality maintenance, Company leadership regularly leads visits to client units to promptly understand their needs and maintain strong collaborative relationships. During the warranty period of contracted projects, each affiliated unit conducts at least one client follow-up visit annually. In the event of any quality issues, the project team promptly dispatches personnel to resolve them, ensuring that service quality meets client expectations.

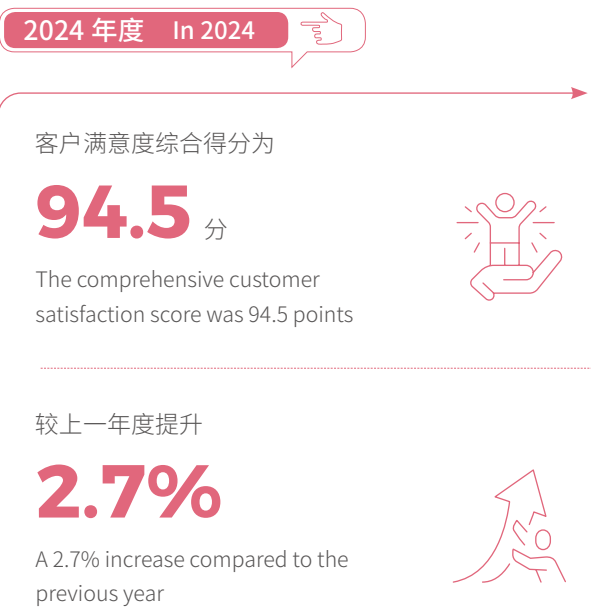


客户满意度调查

Customer Satisfaction Survey

公司高度重视客户满意度，致力于持续优化质量管理体系。每月，项目部向业主发送包含主观与客观题目的问卷，收集反馈后汇总至所属单位并上报总部。通过这一流程，我们实现项目进度实时追踪，及时落实并改进客户反馈的问题。未来，我们将持续提升客户对中国十五冶产品和服务的满意度。

The Company places great importance on customer satisfaction and is committed to continuously optimizing its Quality Management system. Each month, project departments distribute questionnaires—comprising both subjective and objective questions—to clients. Feedback is then collected, consolidated by the respective affiliated units, and reported to headquarters. This process enables real-time tracking of project progress and ensures timely resolution and improvement of issues raised by clients. Looking ahead, the Company will continue to enhance customer satisfaction with 15MCC's products and services.



维护员工权益

Protection of Employee Rights and Interests

规范雇佣管理

Regulate Employment Management

公司严格遵守《中华人民共和国劳动法》《中华人民共和国劳动合同法》《中华人民共和国未成年人保护法》等相关法律法规及业务所在国法律要求，制订并持续健全规范的招聘和用工制度，严格依据《招聘管理办法》《劳务用工管理办法》《劳动用工与劳动合同管理办法》等文件执行员工招聘、劳动合同管理及解聘程序，杜绝雇佣童工与强制劳工，规范各岗位用工标准，确保用工合规合法，保障员工合法权益。公司坚持公开、公平、竞争、择优的原则进行招聘，不因性别、年龄、民族、种族、宗教信仰等设置就业歧视，依法签订劳动合同，明确劳动关系，依法为员工缴纳社会保险及住房公积金，维护员工劳动经济权益。本报告期内，公司未发生童工、强制劳动等违规事件，未发生重大劳动争议或侵犯员工权益的情况。

The Company strictly complies with the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, the *Law on the Protection of Minors of the People's Republic of China*, and relevant legal requirements in countries where it operates. It has established and continuously improved standardized recruitment and employment systems. All recruitment, labor contract management, and termination procedures are implemented in accordance with internal regulations such as the *Recruitment Management Measures*, *Labor Employment Management Measures*, and *Labor Employment and Labor Contract Management Measures*. The Company strictly prohibits child labor and forced labor, standardizes employment practices across all positions, ensures legal and compliant labor practices, and safeguards employees' lawful rights and interests. Adhering to the principles of openness, fairness, competition, and merit-based selection, the Company conducts recruitment without discrimination based on gender, age, ethnicity, race, or religious belief. Labor contracts are signed in accordance with the law, labor relationships are clearly defined, and statutory social insurance and housing provident fund contributions are made to protect employees' economic and labor rights. During the Reporting Period, the Company recorded no incidents of child labor, forced labor, major labor disputes, or violations of employee rights.

中国十五冶高度重视员工多元化发展，积极营造开放包容的用人环境，推动性别、年龄、学历、专业等各方面结构优化，提升组织活力和竞争力。

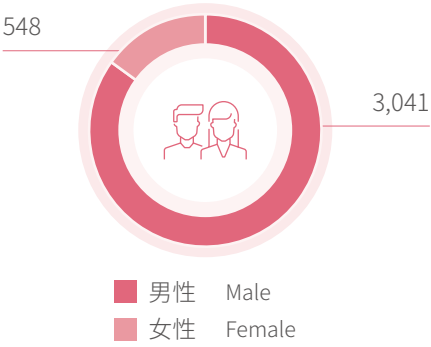
15MCC attaches great importance to the diversified development of employees, actively creates an open and inclusive employment environment, promotes the optimization of the structure in terms of gender, age, educational background, and major, and enhances the vitality and competitiveness of the organization.



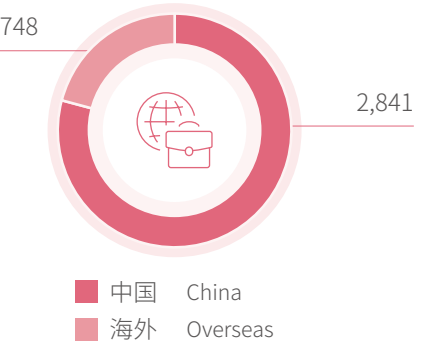
2024 年员工构成
Employee Structure in 2024

单位：人 Unit: Person

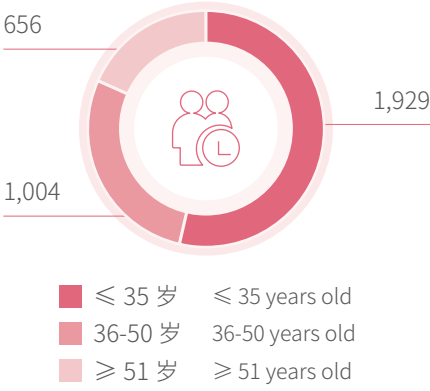
按性别划分 By gender



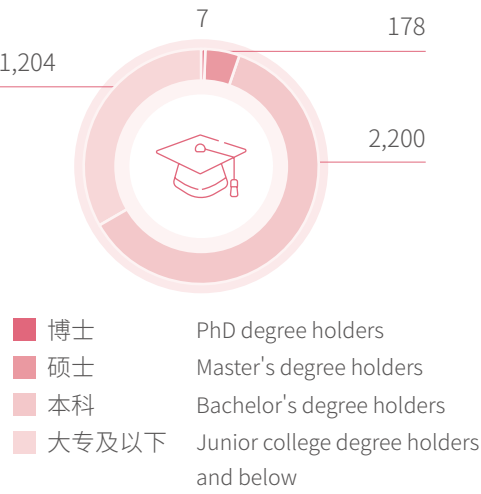
按地区划分 By region



按年龄组别划分 By age



按学历划分 By educational background



民主管理机制

Democratic Management Mechanism

中国十五冶坚持以职工代表大会为基本形式，持续完善民主管理机制。依据《民主管理办法》《厂务公开实施细则》等规章制度，公司定期召开职代会，依法公开涉及员工切身利益的重要事项，畅通员工参与企业管理的渠道，切实保障员工的知情权、参与权和监督权。

15MCC adheres to the workers' congress system as the fundamental form of democratic management and continuously improves its employee participation mechanisms. In accordance with internal regulations such as the *Democratic Management Measures and the Implementation Rules for Factory Affairs Disclosure*, the Company regularly convenes workers' congresses to lawfully disclose major matters concerning employees' vital interests. This approach ensures open communication channels for employee participation in corporate governance and effectively safeguards their rights to information, participation, and supervision.

2024 年，公司各级单位依法组织召开职工代表大会 1 次，全面推进厂务公开和民主管理意见收集工作。公司建立了规范的工会组织管理机制，每年根据实际情况依法组织工会换届或补选工作，保障工会机构健全运行，切实发挥员工代表作用。通过不断完善职工代表大会和厂务公开制度，公司持续提升民主管理水平，有效增强了员工的归属感与参与感。

In 2024, the Company's units at all levels lawfully convened one session of the workers' congress, comprehensively advancing factory affairs disclosure and the collection of democratic management feedback. The Company has established a standardized trade union organization management mechanism, organizing union elections or by-elections annually in accordance with actual circumstances and legal requirements, ensuring the sound operation of union bodies and effectively empowering employee representatives. By continuously improving the workers' congress and factory affairs disclosure systems, the Company has steadily enhanced the level of democratic management, significantly strengthening employees' sense of belonging and engagement.



2024 年度工作会暨六届二次职工代表大会召开
The 2024 Annual Work Conference and the Second Session of the Sixth Workers' Congress



薪酬福利体系

Remuneration and Benefits System

本报告期内，中国十五冶根据国资委及集团要求，结合企业实际，修订完善了《薪酬管理办法》《项目部薪酬管理办法》《所属单位工资总额管理办法》等制度，健全岗位绩效制、计件工资制、协议工资制等薪酬模式，进一步规范薪酬结构，完善薪酬调整与发放机制，增强薪酬体系的公平性和激励性。公司坚持以岗位价值、能力贡献和业绩结果为导向，实行岗位工资、绩效工资、专项奖励相结合的薪酬分配方式，确保内部公平、外部具有竞争力。

公司严格落实法定五险一金缴纳，普遍配备食堂、宿舍，提供交通补贴、高温津贴、岗位津贴、境外津贴等多样化福利。

在休假福利方面，公司针对不同岗位特点实行标准工时、不定时工作制和综合工时制，保障员工合理休息与假期权益。公司严格执行国内外休假管理办法，依法保障员工享有年休假、婚假、产假、护理假等带薪休假。针对海外岗位，公司结合工作实际制定专项休假政策，安排连续工作满一定期限的员工回国休假。

During the Reporting Period, in alignment with the requirements of SASAC and the Group, and based on the Company's operational realities, 15MCC revised and improved key compensation policies, including the *Remuneration Management Measures*, *Project Department Remuneration Management Measures*, and *Affiliated Units Total Wage Management Measures*. The Company further developed a range of compensation models—such as position-based performance pay, piece-rate wages, and negotiated salary systems—to standardize salary structures and refine mechanisms for adjustment and disbursement. These efforts enhanced both the fairness and incentive effectiveness of the overall system. Guided by position value, individual contribution, and performance outcomes, 15MCC implemented a compensation framework that integrates base salary, performance-based pay, and special incentives, ensuring internal equity and external competitiveness.

15MCC strictly complies with statutory requirements for the payment of social insurance and housing provident funds and widely provides employee amenities such as canteens and dormitories. In addition, the Company offers a diverse range of benefits, including transportation subsidies, high-temperature allowances, position-based stipends, and overseas allowances.

In terms of leave, 15MCC adopts flexible work hour systems, such as standard working hours, non-fixed schedules, and comprehensive work hour arrangements, based on the nature of different positions, ensuring employees' rights to reasonable rest and paid leave. The Company rigorously implements both domestic and international leave policies, lawfully guaranteeing access to paid annual leave, marriage leave, maternity leave, caregiver leave, and more. For overseas assignments, 15MCC has formulated special leave policies based on actual working conditions, arranging home leave for employees who have completed a specified period of continuous service abroad.

赋能员工发展

Empowerment of Employee Development

职业发展通道

Career Development Path

中国十五冶持续深化人才强企战略，优化员工职业晋升路径，搭建管理、专业、技能三大职级序列，畅通纵向、横向发展通道，打造公平、公开、透明的竞争机制。

15MCC continues to advance its talent-driven development strategy by optimizing career progression pathways. The Company has established three structured career tracks—management, professional, and technical—offering both vertical and horizontal mobility. This framework fosters a fair, open, and transparent competitive environment for employee growth and advancement.

完善职级管理体系

Improve the job grade management system

本报告期内，中国十五冶制定并实施了《职级管理办法》，建立了动态性、层次性和成长性相结合的职级体系。职级序列横向分为管理、专业、技能三大序列，纵向设立A至I九个职级，每级细分为两个档次，进一步规范了员工职业发展通道。

During the Reporting Period, 15MCC has formulated and implemented the *Job Grade Management Measures*, establishing a dynamic, hierarchical, and growth-oriented position grading system. The framework is structured horizontally into three main career tracks—management, professional, and technical—and vertically into nine levels, labeled A through I. Each level is further divided into two sub-tiers, providing a clear and standardized pathway for employee career development.

规范职级评审与晋升机制

Standardize the job grade review and promotion

公司设立职级评审委员会，统筹负责职级管理与评审工作，明确各职级序列的基本条件、业绩要求、管理规范和能力素质标准，并合理控制职数比例。公司建立了规范的职级评审机制，每年定期组织评审，实行逐级晋升和择优晋升制度，同时设有定期复评和动态调整机制，确保职级体系公平、科学、有效运行。

15MCC has established a Job Grade Evaluation Committee to oversee the management and assessment of the Company's job grading system. The committee defines core requirements, performance standards, managerial criteria, and competency benchmarks for each job grade track, which spans across managerial, professional, and technical roles. It also ensures a balanced and rational distribution of job grades within the organization. The Company has implemented a standardized job grade evaluation mechanism, conducting annual reviews based on a system of progressive and merit-based promotion. A regular re-evaluation and dynamic adjustment process is in place to ensure that the job grading system remains fair, transparent, and effective in supporting employee development and organizational needs.

专业技能培训

Professional Skills Training

中国十五冶根据公司发展战略及实际需求，按照总部、所属单位、项目部三级管理模式分类实施培训。新入职员工通过岗前培训和导师带徒掌握企业文化、安全教育及岗位技能，管理人员以规章制度与管理能力提升培训为主，中层及以上领导干部注重团结协作与综合素质提升，技术工人通过技能竞赛和岗位练兵强化操作水平。通过系统化、差异化培训体系，公司有效提升了员工综合素质与岗位胜任力，为企业高质量发展提供了坚实的人才保障。

15MCC implements a tiered training system aligned with the Company's strategic development goals and operational needs, structured across headquarters, affiliated units, and project departments. New employees undergo pre-job training and mentorship programs to gain a solid foundation in corporate culture, safety protocols, and job-specific skills. Training for management personnel focuses on Company policies, regulations, and leadership development. For mid- to senior-level executives, programs emphasize team collaboration and comprehensive capability building. Technical workers enhance their operational proficiency through skills competitions and hands-on training exercises. By establishing a systematic and differentiated training framework, 15MCC has significantly improved overall employee competence and role readiness, providing strong human capital support for the Company's high-quality development.

培训支出765万元

较上年增长1.6%

Investment in training amounted to RMB 7.65 million, a year-on-year increase of 1.6%

培训参与员工3,589人，

实现员工培训全覆盖

3,589 employees participated in the training, achieving 100% coverage of employee training

员工年度平均培训时长18小时 / 人

Average annual training duration per employee: 18 hours



案例 Case

“双周”培训制度
The "Bi-weekly" Training System

为构建“强总部、精区域、细项目”组织架构，实施“立足有色、跳出有色”发展战略提供强有力的支撑，2024年5月起，公司在总部推行“双周”培训制度，培训内容主要涉及制度培训、业务培训、技能培训、党建培训等方面。旨在通过常态化开展培训，围绕提升“七种能力”，提高总部部门员工综合素质；围绕各部门间相互熟悉业务、制度等，提高总部部门间协同效率；围绕强化内部培训，推进内部师资队伍建设，推动建设学习型组织、打造“经营型+管理型”总部落到实处。公司领导、部门主任带头上台授课，自实施以来，总计开展培训29场次，参训3,500余人次。

To support the development strategy of "focus on nonferrous and seek to expand" and to build a robust organizational structure of "strengthening headquarters, optimizing regional operations, and refining project execution," 15MCC launched a biweekly training program at its headquarters starting in May 2024. The program covers a wide range of topics, including institutional policies, business operations, technical skills, and Party-building education. It aims to enhance seven core competencies among headquarters staff, foster interdepartmental understanding of systems and workflows, and improve overall coordination efficiency. It also promotes the development of internal trainers and contributes to building a learning-oriented organization and a "managerial + operational" headquarters. Company leaders and department heads take the lead in delivering lectures. Since its launch, the program has conducted 29 training sessions, engaging over 3,500 total participants.



开展“双周”培训
"Bi-weekly" training



公司领导带头上台授课
Company leaders took the lead in giving lectures

学历提升合作
Cooperation in academic
qualification improvement

公司与中南大学和武汉理工大学合作，组织工程管理硕士学历学位培养，共 13 名员工被预录取，持续提升管理岗位人才的专业素养和综合能力。

The Company cooperates with Central South University and Wuhan University of Technology to organize the cultivation of master's degrees in engineering management. A total of 13 employees have been pre-admitted, continuously improving the professional qualities and comprehensive abilities of management-position talents.

项目商务经理专项培训
Special training for project
business managers

为提升商务人员履约管理和价值创造能力，公司举办以“固本强基 商务赋能”为主题的项目商务经理培训班，来自所属单位和基层项目部的 36 名商务系统学员参加培训。

To improve the performance management and value-creation abilities of business personnel, the Company held a training class themed on "consolidating the foundation and strengthening the business" for project business managers. A total of 36 trainees from the business system of affiliated units and basic project departments participated in the training.

项目经理与总工系统培训
Training for project managers
and chief engineers

围绕“强总部、精区域、细项目”目标，公司分三期开展了项目经理、总工培训班，重点加强项目班子建设和履约管理，共 165 人参加。

Aiming at the goal of "strengthening headquarters, optimizing regional operations, and refining project execution," the Company conducted training classes for project managers and chief engineers in three phases, focusing on strengthening the construction of project leadership teams and performance management, engaging a total of 165 employees.

执业资格考前辅导
Exam tutoring for professional qualifications

为提高员工取证通过率，培养注册执业资格人才，公司组织一级建造师、一级造价师、中级安全工程师等考前辅导培训班，累计培训 500 余人次。

To improve the pass rate of employees in obtaining certificates and cultivate talents with registered professional qualifications, the Company organized exam tutoring training classes for first-class constructors, first-class cost engineers, and intermediate safety engineers, providing over 500 sessions.

技能型人才培训
Training for skilled talents

公司开展特种设备作业人员（氩弧焊工）培训取证工作，同时举办班组长综合素质提升培训班，共培训 36 名班组长和优秀工人代表，强化一线施工组织与安全管理能力。

The Company carried out training and certificate-obtaining work for special equipment operators (TIG welders) and held a training class for improving the comprehensive qualities of team leaders. A total of 36 team leaders and outstanding worker representatives received training to strengthen the on-site construction organization and safety management abilities.

员工关怀福利 Employee Care and Benefits

中国十五冶坚持以人为本，切实关心关爱员工身心健康，保障员工参与企业管理的权利，完善员工帮扶和文化建设机制，持续提升员工获得感、幸福感和归属感，促进企业与员工共同成长。

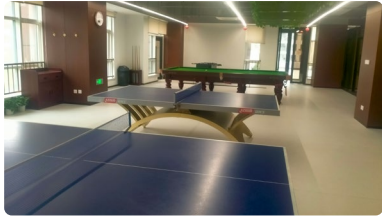
本报告期内，公司总部建设员工活动中心，配备舞蹈瑜伽活动室、健身房、职工书屋、超市等设施，健全员工服务体系，丰富员工业余生活。

China 15MCC upholds a people-centered approach, earnestly caring for employees' physical and mental well-being while safeguarding their rights to participate in corporate governance. The Company continuously improves employee support and cultural development mechanisms to enhance their sense of fulfillment, happiness, and belonging, fostering mutual growth between the enterprise and its workforce.

During the Reporting Period, the Company headquarters has developed a comprehensive employee activity center featuring a dance and yoga studio, fitness gym, staff library, and on-site supermarket. These well-rounded facilities foster a vibrant work-life balance, enrich employees' leisure time, and contribute to their overall well-being and satisfaction.



员工活动中心
Employee activity center



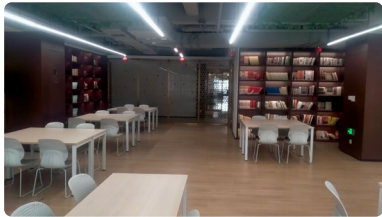
乒乓球、台球室
Table tennis and billiards room



健身房
Gym



免费理发室
Free barber shop



职工书屋
Staff reading room



舞蹈瑜伽活动室
Dance and yoga studio



慰问帮扶员工
Employee Care and Assistance

2024 年，中国十五冶持续关心关爱员工，开展困难员工帮扶、金秋助学、海外家属慰问等多项活动，营造积极向上、团结友爱的文化氛围，增强员工的凝聚力和向心力。

In 2024, 15MCC continued to prioritize employee care, carrying out various initiatives such as support for employees in difficulty, the "Golden Autumn" scholarship program, and visits for overseas family members. These efforts fostered a positive, united, and caring cultural atmosphere, enhancing employee cohesion and sense of belonging.

本报告期内 During the Reporting Period

公司持续加大员工关爱力度，员工帮扶及慰问总投入达 **232** 万元
The Company continued to strengthen its employee care efforts, with a total investment of RMB 2.32 million in employee support and visit and care activities.

其中 Details

员工帮扶投入

80 万元

Investment in employee assistance: RMB 800,000

- 发放大病救助基金：**38** 万元
Disbursed critical illness relief funds: RMB 380,000
- 开展“金秋奖学助学”活动：资助 **25** 人
Conducted the "Golden Autumn Scholarship" program: 25 students supported

员工慰问投入

152 万元

Investment in employee visits and care: RMB 1.52 million

- 慰问困难员工、海外骨干、春节未回国人员共 **454** 人
Visited and cared for 454 individuals, including employees in difficulty, key overseas staff, and personnel who did not return home during the Spring Festival
- 开展先进人物、退伍军人走访慰问 **144** 人
Visited and cared for 144 people, including outstanding employees and veterans
- 开展“生日送祝福”活动，覆盖 **135** 人
Organized "Birthday Blessings" activities, covering 135 employees
- 组织海外员工家属座谈会，慰问家属 **896** 人，累计发放价值 **17.9** 万元的物资
Held family meetings for overseas employees, visited and cared for 896 family members, and distributed materials worth RMB 179,000



送清凉到基层
Sending coolness to frontline workers



送清凉到基层
Sending coolness to frontline workers



退伍军人慰问活动
Veterans visits and care activity



金秋奖学助学活动
Golden Autumn Scholarship and Assistance activity



特色文体活动

Characteristics Cultural and Sports Activities

公司鼓励和支持员工积极参与文体活动，丰富业余文化生活，增强团队协作意识和企业认同感。公司组织“平安夏季送清凉、送活动、送技术”三送活动，覆盖 97 个项目部 5,000 余人。

2024 年，公司组织了首届“强企有我·展铁军风采”文体系列活动，涵盖足球、羽毛球、篮球等多个项目，员工参与人数达 3,600 人，活动覆盖率达到 100%。通过持续推进文体活动建设，公司进一步活跃了企业文化氛围，提升了员工整体精神风貌。

The Company encourages and supports employees to actively participate in cultural and sports activities to enrich their leisure life, strengthen team spirit, and foster a stronger sense of corporate identity. It also organized the "Safe Summer: Sending Coolness, Activities, and Technical Support" campaign, engaging over 5,000 employees across 97 project sites.

In 2024, the Company launched its first "With Me for a Stronger Enterprise – Showcasing the Iron Army Spirit" cultural and sports series, featuring events such as football, badminton, and basketball. The program saw participation from 3,600 employees, achieving 100% coverage. By continuously promoting cultural and sports initiatives, the Company further enriched its corporate culture and enhanced employees' overall morale and spirit.



“铁军杯”文化节活动现场
The scene of the "Iron Army Cup" Cultural Festival



“铁军杯”文化节篮球比赛现场
The scene of the basketball game at the "Iron Army Cup" Cultural Festival



“羽”你携手同创未来羽毛球联谊赛
The Badminton Friendship Tournament "Join Hands with You to Create the Future"

女性员工关怀

Care for Female Employees

公司积极践行女性关怀理念，组织开展“三八”妇女节征文活动和“最美劳动者”摄影比赛，丰富员工文化生活。针对女性职工，公司在员工活动中心设置母婴室，于定点体检机构新增专项健康体检项目，进一步提升女性健康保障水平，体现对女性员工的人文关怀。

The Company actively promotes a culture of care for women by organizing activities such as a Women's Day essay contest and a "Most Beautiful Workers" photography competition, enriching employees' cultural life. To better support female employees, the Company has set up a mother-and-baby room at the employee activity center and introduced dedicated women's health screening items at designated medical institutions. These initiatives further enhance health protection for female staff and reflect the Company's commitment to humanistic care.



三八妇女节活动
The International Women's Day activity

职业健康保障

Safeguard Occupational Health

公司高度重视职业健康管理，严格遵循 ISO 45001 职业健康安全管理体系标准，积极组织职业健康体检，持续扩大员工体检覆盖范围。

The Company attaches great importance to occupational health management, strictly follows the ISO 45001 Occupational Health and Safety Management System standard, actively organizes occupational health examinations, and continuously expands the coverage of employee physical examinations.

职业健康管理举措

Measures for occupational health management



健康体检 Physical examination

- 2024 年，新增武汉同济医院、黄石中心医院为定点体检机构。
In 2024, Wuhan Tongji Hospital and Huangshi Central Hospital were added as designated physical examination institutions.
- 公司为女性职工增加 500 元专项检查项目，关心员工职业病防护和身体健康。
The Company added a special examination project worth RMB 500 for female employees, showing concern for employees' occupational disease prevention and physical health.
- 公司矿山项目建立“一人一档”的健康档案，确保入职前、在岗期间和离职后体检全覆盖。
The Company's mining projects established a health file for each employee to ensure full-coverage physical examinations before employment, during employment and after leaving the Company.
- 2024 年体检覆盖率达到 100%。
The physical examination coverage rate was 100% in 2024.



职业病告知与警示 Notification and caution of occupational diseases

- 开展职业病防治宣传活动，制作并分发宣传手册、海报、视频等资料。
Conducted publicity activities on occupational disease prevention, produced and distributed publicity materials such as brochures, posters and videos.
- 在作业场所设置职业病危害警示标识，公布职业病防护措施和应急救援措施。
Set up warning signs for occupational disease hazards in the workplace, and announced occupational disease prevention measures and emergency rescue measures.
- 定期告知员工所在岗位可能存在的职业危害及防护要求，确保员工签署《职业危害告知书》。
Regularly informed employees of the possible occupational hazards and protection requirements of their positions, and ensured that employees have signed the *Occupational Hazard Notification Form*.



职业健康宣传与教育培训 Publicity, education and training on occupational health

- 组织开展职业病防护知识竞赛等宣传教育活动，持续提升员工职业健康意识和防护能力。
Organized publicity and education activities such as occupational disease prevention knowledge competitions to continuously enhance employees' awareness of occupational health and protection capabilities.



《职业病防治法》宣传周活动
The publicity week activities for the *Law on Prevention and Control of Occupational Diseases*



员工心理健康
Employee Mental Health

中国十五冶始终关心员工的心理健康，致力于为员工提供多元、全面的关怀与支持。公司高度重视倾听员工心声，及时了解员工在工作与生活中的实际需求，持续完善双向沟通交流渠道，广泛收集员工意见与建议，提升人文关怀水平和心理疏导效果。

为营造积极、包容的工作氛围，公司尊重每一位员工的个性与背景，倡导开放、合作的团队文化，鼓励员工充分发挥潜能，努力让每一位员工在中国十五冶大家庭中感受到尊重、温暖与归属感，不断提升员工的幸福感与获得感。

15MCC has always been concerned about employees' mental health and is committed to providing them with diverse and comprehensive care and support. The Company attaches great importance to listening to employees' voices, timely understanding their actual needs in work and life, continuously improving the two-way communication channels, widely collecting employees' opinions and suggestions, and enhancing the level of humanistic care and the effect of psychological counseling.

To create a positive and inclusive work atmosphere, the Company respects the individuality and background of each employee, advocates an open and cooperative team culture, encourages employees to give full play to their potential, and strives to make each employee feel respected, warm, and a sense of belonging in the big family of 15MCC, continuously enhancing employees' sense of well-being and gain.

公司关注员工心理健康，定期组织座谈交流活动，通过工会渠道倾听员工心声，收集合理诉求，及时回应关切，营造积极、健康、包容的工作氛围。

The Company cares about employees' mental health, regularly organizes discussion and exchange activities, listens to employees' voices through the trade union channels, collects reasonable demands, responds to concerns in a timely manner, and creates a positive, healthy, and inclusive work atmosphere.



对员工展开心理疏导
Provided psychological counseling to employees



公司持续完善新员工培训体系，围绕企业文化、职业发展、行政制度讲解等内容，组织开展系统培训，帮助新员工尽快熟悉岗位、提升履职能力。同时注重心理健康引导，通过设置沟通交流环节、开展适应性辅导等方式，缓解初入职场紧张情绪，增强归属感与心理韧性，助力员工以更积极的心态融入集体、稳步成长。

The Company continues to improve its onboarding training system, offering structured programs focused on corporate culture, career development, and administrative policies to help new employees quickly adapt to their roles and enhance their professional competencies. At the same time, the Company places strong emphasis on mental well-being by incorporating communication and peer exchange sessions, as well as adaptive counseling, to ease workplace anxiety. These efforts aim to foster a stronger sense of belonging and psychological resilience, supporting new employees in integrating into the team with a positive mindset and growing steadily in their careers.



新员工培训
Onboarding training for new employees



履行社会责任
Fulfillment of Social Responsibilities

中国十五冶始终坚持履行央企社会责任，积极参与乡村振兴、志愿服务与公益慈善等各类社区公益实践，持续推动企业发展成果反哺社会。公司围绕国家重大战略和地方发展需求，聚焦民生关切，扎实推进定点帮扶、公益捐赠、志愿服务等工作，打造有温度、有担当的企业形象。2024 年，公司不断丰富公益参与形式，拓展国内外社区协同合作，以实际行动服务社会、回馈群众，传递企业温暖，彰显责任担当。

15MCC remains committed to fulfilling its social responsibilities as a central SOE, actively participating in rural revitalization, volunteer services, and charitable initiatives. The Company continues to channel the fruits of its development back into society through a wide range of community engagement efforts. Aligned with national strategies and local development needs, the Company focuses on people's livelihood issues and steadily advances targeted assistance, philanthropic donations, and volunteer activities, shaping a corporate image that is both compassionate and accountable. In 2024, the Company further diversified its public welfare initiatives and expanded collaboration with communities both domestically and abroad, demonstrating its commitment to serving society, giving back to the people, and embodying a strong sense of social responsibility.

乡村振兴实践
Rural Revitalization Contribution

中国十五冶积极落实国家乡村振兴战略，持续深化定点帮扶工作，聚焦产业发展、基础设施建设和乡村治理等重点领域，推动形成共建共治共享的帮扶格局。公司充分发挥央企资源优势，助力乡村增强内生发展动力，探索从“输血式”援助向“造血式”支持的转型路径，切实履行企业社会责任。

15MCC actively implements the national rural revitalization strategy and continues to deepen its targeted assistance efforts. Focusing on key areas such as industrial development, infrastructure construction, and rural governance, the Company promotes a collaborative model of co-building, co-governance, and shared benefits. Leveraging the resource advantages of a central SOE, the Company supports rural communities in strengthening their endogenous development capacity, exploring a transition from simply injecting help into poverty-stricken areas to enabling them to help themselves. These efforts reflect the Company's firm commitment to fulfilling its corporate social responsibility.

案例 Case 北山村定点帮扶与产业振兴实践
Targeted Assistance and Industrial Revitalization in Beishan Village

2024 年，公司持续推进对湖北省大冶市殷祖镇北山村的定点帮扶工作，聚焦提升村民自主发展能力，积极引导发展乡村旅游与特色农产品销售，助力构建可持续增收模式；同时，支持北山村两个活动中心建设，完善基层公共服务功能，丰富村民文化生活，进一步夯实乡村振兴的治理基础。

In 2024, the Company continued its targeted assistance efforts in Beishan Village, Yinzhu Town, Daye City, Hubei Province, with a focus on enhancing residents' capacity for self-driven development. Efforts included promoting rural tourism and the sale of specialty agricultural products to help establish a sustainable income model. At the same time, the Company supported the construction of two community activity centers in the village, improving grassroots public services and enriching local cultural life, laying a stronger governance foundation for long-term rural revitalization.



北山村两个活动中心建成
Two activity centers in Beishan Village were completed

志愿服务活动
Volunteer Service

中国十五冶将志愿服务融入企业文化建设，积极引导员工以实际行动践行社会责任。公司持续推动志愿服务，鼓励各级工会、团组织结合属地实际和社会需求，组织开展多样化公益活动，弘扬“奉献、友爱、互助、进步”的志愿精神，展现新时代央企职工的良好风貌。

15MCC integrates volunteer services into corporate culture construction and actively guides employees to fulfill social responsibilities with practical actions. The Company continuously promotes volunteer services, encourages trade unions and youth leagues at all levels to organize diverse public welfare activities in combination with local realities and social needs, promotes the volunteer spirit of "dedication, friendship, mutual assistance, and progress," and shows the good image of central state-owned enterprise employees in the new era.

案例 Case 参与武汉光谷义务献血公益活动
Participation in the Voluntary Blood Donation Activity in Wuhan Optics Valley

2024 年，公司组织武汉地区员工参加光谷中心城区义务献血活动，共计 27 人次参与，充分展现了企业担当与员工奉献精神。凭借良好的组织和积极的参与氛围，公司获得武汉市无偿献血管理办公室颁发的“优秀组织奖”，进一步树立了中国十五冶良好的社会形象和公益口碑。

In 2024, the Company organized employees in the Wuhan region to take part in a voluntary blood donation drive in the central district of Optics Valley, engaging a total of 27 participants. The initiative showcased both the Company's sense of social responsibility and the spirit of employee dedication. Thanks to its strong organization and active participation, the Company was awarded the "Outstanding Organization Award" by the Wuhan Municipal Office for Voluntary Blood Donation Management, further enhancing 15MCC's reputation for social responsibility and public goodwill.



武汉光谷义务献血公益活动感谢状
Letter of Thanks for the Public-Welfare Voluntary Blood Donation Activity in Wuhan Optics Valley

公益慈善行动
Public Welfare and Charity

2024 年，公司公益捐赠总金额 88 万元，持续为社会民生改善与区域发展提供支持。

In 2024, the Company made a total of RMB 880,000 in charitable donations, continuing to support social welfare and regional development initiatives.

案例 Case 向赞比亚医疗机构捐赠建筑与医疗物资
Donation of Construction and Medical Supplies to Medical Institutions in Zambia

2024 年 12 月，中国十五冶非洲公司向所在地赞比亚卡鲁鲁西市中心医院捐赠包括砂石、钢筋、油漆、电缆等建筑材料，价值约 5 万元人民币，改善当地医疗基础设施，助力提升服务能力，赢得驻地良好口碑。

In December 2024, 15MCC Africa Company donated construction materials, including sand and gravel, rebar, paint, and cables, valued at approximately RMB 50,000 to the Central Hospital of Kalulushi City, Zambia. This contribution helped improve local medical infrastructure and enhance service capacity, earning widespread praise from the local community.



中国十五冶非洲公司向当地捐赠
Donation by 15MCC Africa Company to the local area

专家点评
Expert Opinion

这是中国十五冶发布的第二份 ESG 报告，通过报告深刻感受到这家拥有 70 多年发展历史的国有企业，将 ESG 理念深度融入“打造具有核心竞争力的国际化工程公司”的企业愿景，坚定可持续发展的战略定力与责任担当。

ESG 管理体系实现“从有到优”的进阶。2024 年，中国十五冶正式发布《ESG 管理手册》，明确 ESG 治理的顶层设计与实施路径，将按照“全集化思维、漏斗模型式”的形式融入到生产经营各个环节，标志着中国十五冶 ESG 工作从探索阶段进入制度化、规范化运行的新阶段，将更好支撑企业高质量履责与可持续价值创造。

ESG 实践展现实质性进展和综合价值创造。定制非洲首台矿用 TBM “中国有色二号”，在 13 个国家为 7400 余名当地员工提供就业，将“共商共建共享”理念转化为具体实践。发展矿山数字化、光储微网矿山应用等绿色技术，从员工成长到客户价值再到乡村振兴，实现经济效益、环境效益和社会效益的和谐统一，是与时代同行、与自然共进、与人民齐心的高质量发展标杆。

ESG 信息披露彰显战略重点与责任担当。2024 年报告由三个专题和三个篇章构成，“深化党建引领”“科技创新成果”“共建‘一带一路’”三大专题，精准呼应时代命题与企业战略，“治理篇”“环境篇”“社会篇”三大主体篇章，积极回应政府、股东、环境、客户、合作伙伴、员工、社会公众等利益相关方的期望与诉求，增强公司的运营透明度和社会沟通能力。

作为中国有色建设行业的国家队和主力军，中国十五冶正以更成熟的 ESG 治理体系、更扎实的履责行动、更聚焦的战略议题回应，厚植高质量发展的可持续底蕴。未来，期待中国十五冶不忘初心，在打造成为“令人自豪、令人向往、令人尊敬的工程企业”的道路上，继续为利益相关方创造价值，为中国式现代化建设和全球可持续发展贡献更大的力量。

This is the second ESG Report published by China 15th Metallurgical Construction Group Co., Ltd. (15MCC). Through this report, it is evident that this state-owned enterprise, with over 70 years of development history, has deeply embedded ESG principles into its corporate vision of "building an internationally competitive engineering company," demonstrating strong strategic commitment and a sense of responsibility towards sustainable development.

The ESG management system of 15MCC has advanced from "establishment" to "excellence." In 2024, the Group released the *ESG Management Handbook*, which clearly defines the top-level design and implementation path of ESG governance. The ESG strategy will be integrated into all aspects of business operations following a "holistic mindset and funnel model" approach. This marks a transition of China 15MCC's ESG efforts from an exploratory phase to a new stage of institutionalized and standardized operations, providing stronger support for high-quality responsibility fulfillment and sustainability value creation.

The company's ESG practices demonstrate substantial progress and value creation across the board. The development of "CNMC No. 2," the first customized mining TBM in Africa, has set a milestone. Moreover, the Group has created employment opportunities for more than 7,400 local employees across 13 countries, translating the concept of "broad consultation, joint construction, and shared benefits" into tangible action. By advancing green technologies such as digital mining and micro-grid applications powered by solar energy storage, 15MCC achieves a harmonious integration of economic, environmental, and social benefits from employee development to customer value creation to rural revitalization. This exemplifies a high-quality development benchmark that progresses in step with the times, advances in harmony with nature, and aligns with the aspirations of the people.

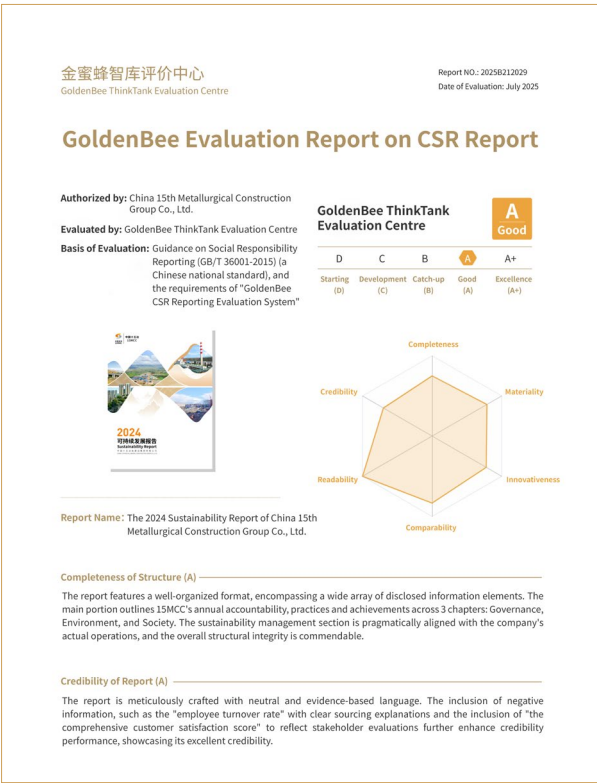
The ESG disclosures underscore 15MCC's strategic priorities and sense of responsibility. The 2024 ESG Report is structured around three thematic sections and three main chapters. Three topics, i.e. "Deepen Party Leadership," "Achievements in R&D Innovation," and "Jointly Building the Belt and Road Initiative" directly respond to the imperatives of the times and align with the company's corporate strategy. Three main chapters, i.e. "Governance," "Environment," and "Society" address the expectations and concerns of various stakeholders, including the government, shareholders, environmental bodies, customers, partners, employees, and the public, thereby enhancing the Company's operational transparency and its ability to engage with society.

As the national team and mainstay of China's nonferrous construction sector, 15MCC is responding with a more mature ESG governance system, more robust responsibility actions, and a sharper focus on strategic topics, laying a solid foundation for sustainable, high-quality development. Looking ahead, we hope 15MCC will stay true to its original aspiration and continue to create value for stakeholders, contributing greater strength to China's path to modernization and the global cause of sustainable development, as it strives to become an "engineering company that inspires pride, aspiration, and respect."

《可持续发展经济导刊》社长兼主编 于志宏
Yu Zhihong
President and Editor-in-Chief China Sustainability Tribune

于志宏

报告评价
Report Rating



关键绩效表

ESG Key Performance

环境数据²

Environmental performance

大气污染物排放

Air pollutants emission

指标 Indicators	2023	2024
二氧化硫 Sulfur dioxide (SO2)	达标排放 Up-to-standard discharge	达标排放 Up-to-standard discharge
氮氧化物 Nitrogen oxide (NOx)	达标排放 Up-to-standard discharge	达标排放 Up-to-standard discharge
烟（粉）尘 Smoke and dust	达标排放 Up-to-standard discharge	达标排放 Up-to-standard discharge

温室气体排放³

GHG emissions

指标 Indicators	2023	2024	单位 Unit
综合能源消耗量 Total energy consumption	4,743	4,676	吨标准煤 tce
万元产值（收入）综合能耗 Total energy consumption per RMB 10 thousand revenue	0.0058	0.0058	吨标准煤 / 万元产值（收入） tce/RMB 10 thousand revenue
温室气体排放量 GHG emissions density	12,795	12,322	吨二氧化碳排放当量 tCO ₂ e
温室气体排放密度 Greenhouse gas emission density	0.0156	0.0152	吨二氧化碳排放当量 / 万元产值（收入） tCO ₂ e/ RMB 10 thousand revenue

² 除特别说明外，本年度环境数据统计范围包括国内办公运营和生产经营活动。
Unless otherwise specified, the statistical scope of this year’s environmental data includes domestic office operations and production and business activities.

能源使用

Energy consumption

指标 Indicators	2023	2024	单位 Unit
汽油 Gasoline	1,169.06	1,157.02	吨标准煤 tce
柴油 Diesel	2,722.00	2,658.00	吨标准煤 tce
天然气 Natural gas	342.63	468.43	吨标准煤 tce
外购电力 Purchased electricity	45,716,920.00	45,643,117.00	千瓦时 kWh

资源使用⁴

Resource consumption

指标 Indicators	2023	2024	单位 Unit
水资源消耗量 Water resource consumption	37,110,740.00	36,219,779.00	吨 Ton
水资源消耗强度 Water resource consumption intensity	45.25	44.70	吨 / 万元产值（收入） Ton/RMB 10 thousand revenue
混凝土消耗量 Concrete consumption	712,300.00	1,335,508.27	吨 Ton
钢材消耗量 Steel consumption	105,092.33	86,165.78	吨 Ton
水泥消耗量 Cement consumption	113,940.18	52,786.90	吨 Ton
轮胎消耗量 Tire consumption	1,200	2,922	个 Number
有毒有害物料消耗量 Hazardous material consumption	746.11	707.08	吨 Ton

³2024 年度温室气体排放及相关能耗数据的披露指标体系进行了调整，旨在与集团可持续发展报告标准保持一致，并更全面地反映公司的能源与环境绩效。且自本年度起，报告披露的环境绩效指标统计覆盖范围统一调整为国内，部分 2023 年环境绩效数据因口径变化与往年报告披露数值有所差异。

⁴ 本年度除水资源之外的其他资源消耗量统计范围包括国内外生产经营活动。

The disclosure indicator system for GHG emissions and relevant energy consumption data for the year 2024 has been adjusted to align with the Group's ESG Reporting standards and more comprehensively reflect the Company's energy and environmental performance. Starting from this year, the data coverage of the environmental performance indicators disclosed in the Report has been uniformly adjusted to domestic operations. Due to the change in the data scope, some environmental performance data for 2023 differ from the values disclosed in previous Reports.

The scope of the consumption of other resources except water resources this year includes domestic and overseas production and business activities.

废弃物排放

Waste discharge

指标 Indicators	2023	2024	单位 Unit
一般固废产生量 General solid waste	470.30	488.50	吨 Ton
一般固废处置率 Disposal rate of general solid waste	100	100	%
危险废弃物产生量 Hazardous waste	7.30	11.7	吨 Ton
危险废弃物处置率 Hazardous waste disposal rate	100	100	%

社会数据

Social performance

雇佣数据⁵

Employment data

指标 Indicators		2023	2024	单位 Unit
员工总人数 Total number of employees		3,458	3,589	人 Person
残疾员工总数 Total number of disabled employees		40	29	人 Person
按性别划分的员工人数 By gender	男性 Male	2,910	3,041	人 Person
	女性 Female	548	548	人 Person
按年龄划分的员工人数 By age	≤ 35 岁 ≤ 35 years old	1,768	1,929	人 Person
	36-50 岁 36-50 years old	987	1,004	人 Person
	≥ 51 岁 ≥ 51 years old	703	656	人 Person
	博士 PhD degree	5	7	人 Person
按学历划分的员工人数 By educational background	硕士 Master's degree	104	178	人 Person
	本科 Bachelor's degree	1,936	2,200	人 Person
	大专及以下 Junior college degree or below	1,413	1,204	人 Person

指标 Indicators		2023	2024	单位 Unit
按地区划分的员工人数 By region	中国 China	2,831	2,841	人 Person
	海外 Overseas	627	748	人 Person

⁵ 员工数据统计范围为自有员工。
The data covers the Company's own employees.

雇员流失

Employee turnover

指标 Indicators		2023	2024	单位 Unit
员工流失总人数 Total number of employee turnover		151	135	人 Person
员工流失率 ⁶ Employee turnover rate		4.37	3.76	人 %
按性别划分的员工流失人数 By gender	男性 Male	144	124	人 Person
	女性 Female	7	11	人 Person
按年龄划分的员工流失人数 By age	≤ 35 岁 ≤ 35 years old	136	121	人 Person
	36-50 岁 36-50 years old	11	12	人 Person
	≥ 51 岁 ≥ 51 years old	4	2	人 Person
	中国 China	112	113	人 Person
按地区划分的员工流失人数 By region	海外 Overseas	39	22	人 Person

⁶ 员工流失率 = 员工流失总人数 / 员工总人数。
Employee turnover rate = Total number of departing employees / Total number of employees.

发展与培训

Development and training

指标 Indicators	2023	2024	单位 Unit
员工培训总比率 Total employee training coverage ratio	100	100	%
员工培训平均时长 Average employee training duration	18	18	小时 Hour
员工培训投入总金额 Total investment in employee training	753	765	万元 RMB 10 thousand

员工安全

Employee safety

指标 Indicators	2023	2024	单位 Unit
因工亡故人数 Number of work-related fatalities	2	0	人 Person
因工伤损失工作时数 Work hours lost due to work-related injuries	8,120	2,500	小时 Hour

平等与多元化

Equality and diversity

指标 Indicators	2023	2024	单位 Unit
女性管理人员占比 Percentage of female managers	18.81	17.9	%
少数民族员工人数 Number of employees from ethnic minorities	117	131	人 Person

供应商数量

Number of suppliers

指标 Indicators	2023	2024	单位 Unit
物资供应商数量 Number of material suppliers	2,510	2,918	个

指标 Indicators	2023	2024	单位 Unit	
按区域划分物资供应商数量 By region	湖北省 Hubei Province	632	733	个
	其他省份 Other provinces	1,873	2,180	个
	海外 Overseas	5	5	个
分包商数量 Number of subcontractors	259	500	个	
按区域划分分包商数量 By region	湖北省 Hubei Province	96	155	个
	其他省份 Other provinces	163	345	个
	海外 Overseas	0	0	个
执行供应商合规管理制度的供应商占比 Percentage of suppliers implementing the supplier management system	100	100	%	

社会公益

Social welfare

指标名称 Indicator name	2023	2024	单位 Unit
员工帮扶投入总金额 Investment in employee assistance	79.5	80	万元 RMB 10 thousand
员工慰问投入总金额 Investment in employee care	150.72	152	万元 RMB 10 thousand
社区 ⁷ 公益捐赠总金额 Total amount of community public welfare donations	未统计 Not counted	73	万元 RMB 10 thousand

⁷ 包括海内外社区。
Including domestic and overseas communities.

指标索引

Index to the Indicators

附录一：国资委《央企控股上市公司 ESG 专项报告参考指标体系》索引表

Appendix 1: The Index Table to *Reference Indicator System for ESG Special Report of Listed Companies Controlled by Central Enterprises* by SASAC.

环境范畴指标

Environmental indicators

一级指标 Primary indicators	二级指标 Secondary indicators	三级指标 Tertiary indicators	回应章节 Location	
E1 资源消耗 E1 Resource Consumption	E1.1 水资源 E1.1 Water resource	E1.1.1 新鲜水用量 E1.1.1 Fresh water consumption	推动节能减排 Promotion of Energy Conservation and Emission Reduction	
		E1.1.4 水资源消耗强度 E1.1.4 Water consumption intensity	推动节能减排 Promotion of Energy Conservation and Emission Reduction	
	E1.2 物料 E1.2 Materials	E1.2.1 不可再生物料消耗量 E1.2.1 Consumption of non-renewable materials	关键绩效表 ESG Key Performance	
		E1.2.2 有毒有害物料消耗量 E1.2.2 Consumption of toxic and hazardous materials	关键绩效表 ESG Key Performance	
		E1.2.3 物料消耗强度 E1.2.3 Material consumption intensity	关键绩效表 ESG Key Performance	
	E1.3 能源 E1.3 Energy	E1.3.1 化石能源消耗量 E1.3.1 Fossil energy consumption	关键绩效表 ESG Key Performance	
		E1.3.4 能源消耗总量 E1.3.4 Total energy consumption	推动节能减排 Promotion of Energy Conservation and Emission Reduction	
		E1.3.5 能源消耗强度 E1.3.5 Energy consumption intensity	推动节能减排 Promotion of Energy Conservation and Emission Reduction	
		E2 污染防治 E2 Pollution Prevention and Control	E2.1 废水 E2.1 Wastewater	E2.1.1 废水排放达标情况 E2.1.1 Wastewater discharge compliance
	E2.1.2 废水管理与减排措施 E2.1.2 Wastewater management and emission reduction measures			关键绩效表 ESG Key Performance
E2.1.3 废水排放量 E2.1.3 Wastewater discharge	关键绩效表 ESG Key Performance			
E2.2 废气 E2.2 Waste gas	E2.2.1 废气排放达标情况 E2.2.1 Waste gas discharge compliance		关键绩效表 ESG Key Performance	

一级指标 Primary indicators	二级指标 Secondary indicators	三级指标 Tertiary indicators	回应章节 Location
E2 污染防治 E2 Pollution Prevention and Control	E2.2 废气 E2.2 Waste gas	E2.2.2 废气污染物排放量 E2.2.2 Waste gas discharge	关键绩效表 ESG Key Performance
		E2.2.3 废气污染物排放浓度 E2.2.3 Concentration of exhaust gas emission	关键绩效表 ESG Key Performance
		E2.3.1 固体废物处置依法合规情况 E2.3.1 Legal and compliance for solid waste disposal	强化环境管理 Improvement of Environmental Management
		E2.3.2 一般工业固废管理 E2.3.2 General solid waste management	强化环境管理 Improvement of Environmental Management
	E2.3 固体废物 E2.3 Solid waste	E2.3.3 一般工业固废处置量 E2.3.3 General solid waste disposal	关键绩效表 ESG Key Performance
		E2.3.4 危险废物管理 E2.3.4 Hazardous material management	强化环境管理 Improvement of Environmental Management
		E2.3.5 危险废物处置量 E2.3.5 Hazardous material disposal	关键绩效表 ESG Key Performance
	E3 气候变化 E3 Climate Change	E3.1.1 温室气体来源与类型 E3.1.1 GHG sources and types	推动节能减排 Promotion of Energy Conservation and Emission Reduction
		E3.1.2 温室气体排放管理 E3.1.2 GHG emissions management	推动节能减排 Promotion of Energy Conservation and Emission Reduction
		E3.1.3 范围一排放 E3.1.3 Scope 1 emissions	关键绩效表 ESG Key Performance
		E3.1.4 范围二排放 E3.1.4 Scope 2 emissions	关键绩效表 ESG Key Performance
		E3.1.6 温室气体排放强度 E3.1.6 GHG emissions intensity	关键绩效表 ESG Key Performance
		E3.2 减排管理 E3.2 Emission reduction management	推动节能减排 Promote energy conservation and emission reduction
E3 气候变化 E3 Climate Change	E3.4 气候风险管理 E3.4 Climate risk management	E3.2.1 温室气体减排管理 E3.2.1 GHG emission reduction management	推动节能减排 Promote energy conservation and emission reduction
		E3.4.1 气候风险管理 E3.4.1 Climate risk management	推动节能减排 Promotion of Energy Conservation and Emission Reduction
E4 生物多样性 E4 Biodiversity	E4.1 生产、服务和产品对生物多样性的影响 E4.1 The production, services and products impact on biodiversity	E4.1.1 生产、服务和产品对生物多样性的影响 E4.1.1 The production, services and products impact on biodiversity	守护生物多样性 Biodiversity Protection

社会范畴指标

Social category indicators

一级指标 Primary indicators	二级指标 Secondary indicators	三级指标 Tertiary indicators	回应章节 Location
E5 资源与环境 管理制度措施 E5 The Management System and Measures of	E5.1 低碳发展目标制定 与战略措施 E5.1 Low- carbon development goal setting and strategic measures	E5.1.1 低碳发展目标制定与战略措施 E5.1.1 Low-carbon development goal setting and strategic measures	推动节能减排 Promotion of Energy Conservation and Emission Reduction
		E5.2.1 水资源使用管理 E5.2.1 Water resources management	强化环境管理 Improvement of Environmental Management
		E5.2.2 物料使用管理 E5.2.2 Material usage management	强化环境管理 Improvement of Environmental Management
	E5.2 资源管理措施 E5.2 Resource management measures	E5.2.3 能源使用与节能管理 E5.2.3 The management of energy saving and emission reduction	强化环境管理 Improvement of Environmental Management
		E5.3.1 节能降碳统计监测 与考核奖惩体系 E5.3 Energy-saving and carbon reduction statistical monitoring and evaluation reward-punishment system	推动节能减排 Promotion of Energy Conservation and Emission Reduction
		E5.4.1 清洁生产 E5.4.1 Clean production	推动节能减排 Promotion of Energy Conservation and Emission Reduction
	E5.4 绿色环保行动与措施 E5.4 Green & environmental protection and measures	E5.4.2 绿色技改和循环利用 E5.4.2 Green technology transformation and cyclic utilization	推动节能减排 Promotion of Energy Conservation and Emission Reduction
		E5.4.4 绿色办公和运营 E5.4.4 Green office and operation	推动节能减排 Promotion of Energy Conservation and Emission Reduction
		E5.4.5 绿色采购与绿色供应链管理 E5.4.5 Green procurement and green supply chain management	推动节能减排 Promotion of Energy Conservation and Emission Reduction
	E5.5 绿色低碳认证 E5.5 Green and low emissions certificates	E5.4.6 环保公益活动 E5.4.6 Environmental enhancement and conservation activities	守护生物多样性 Biodiversity Protection
		E5.5.1 环境管理体系认证 E5.5.1 Environmental management system certificate	强化环境管理 Improvement of Environmental Management
		E5.6.1 突发环境事件应急预案 E5.6.1 Emergency plan for environmental incidents	强化环境管理 Improvement of Environmental Management
	E5.6 环境领域合法合规 E5.6 Legal compliance in environment	E5.6.2 环境领域违法违规事件 E5.6.2 Environmental illegal incidents	强化环境管理 Improvement of Environmental Management

一级指标 Primary indicators	二级指标 Secondary indicators	三级指标 Tertiary indicators	回应章节 Location
S1 员工权益 S1 Employee Rights and Interests	S1.1 员工招聘 与就业 S1.1 Employees recruitment	S1.1.1 企业招聘政策及执行情况 S1.1.1 Recruitment policy and implementation	维护员工权益 Protection of Employee Rights and Interests
		S1.1.2 员工结构 S1.1.2 Employee structure	维护员工权益 Protection of Employee Rights and Interests
		S1.1.3 避免雇佣童工或强制劳动 S1.1.3 Avoiding child labor and forced labor	维护员工权益 Protection of Employee Rights and Interests
	S1.2 员工薪酬 与福利 S1.2 Employee Compensation and Benefits	S1.2.1 薪酬理念与政策 S1.2.1 Compensation philosophy and policy	维护员工权益 Protection of Employee Rights and Interests
		S1.2.2 工作时间和休息休假 S1.2.2 Working hours and holidays	维护员工权益 Protection of Employee Rights and Interests
		S1.2.3 薪酬福利保障情况 S1.2.3 Remuneration and benefits	维护员工权益 Protection of Employee Rights and Interests
	S1.3 员工健康 与安全 S1.3 Health and safety	S1.2.4 员工民主管理 S1.2.4 Democratic management	维护员工权益 Protection of Employee Rights and Interests
		S1.3.1 员工职业健康安全管理 S1.3.1 Occupational health and safety management	应急保障体系 Emergency Support System
		S1.3.2 员工安全风险防控 S1.3.2 The prevention and control of employee safety and risks	应急保障体系 Emergency Support System
	S1.4 员工发展 与培训 S1.4 Development and training	S1.3.3 安全事故及工伤应对 S1.3.3 Measures to safety incidents and workplace injuries	应急保障体系 Emergency Support System
		S1.3.4 员工关爱与帮扶 S1.3.4 Employee care and assistance	员工关怀福利 Employee Care and Benefits
		S1.4.1 员工激励及晋升政策 S1.4.1 The incentive and promotion system	赋能员工发展 Empowerment of Employee Development
	S1.5 员工满意度 S1.5 Employee satisfaction	S1.4.2 员工教育与培训 S1.4.2 Employees training and education	赋能员工发展 Empowerment of Employee Development
		S1.5.3 员工流动情况 S1.5.3 Employee turnover	关键绩效表 ESG Key Performance
		S2.1.1 生产规范管理政策及措施 S2.1.1 Standardized production management policies	质量管理 Quality Assurance
	S2 产品与 服务管理 S2 Product and Service Management	S2.1.2 质量管理 S2.1.2 Quality management	质量管理 Quality Management
		S2.1.4 产品或服务负面事件 S2.1.4 Negative incidents of products or services	精进客户服务 Enhancement of Customer Service

一级指标 Primary indicators	二级指标 Secondary indicators	三级指标 Tertiary indicators	回应章节 Location
S2 产品与服务管理 S2 Product and Service Management	S2.2 客户服务与权益 S2.2 Customer service and rights	S2.2.1 客户满意度 S2.2.1 Customer satisfaction	精进客户服务 Enhancement of Customer Service
		S2.2.2 客户投诉及处理情况 S2.2.2 Customer complaints and handling	精进客户服务 Enhancement of Customer Service
	S2.3 创新发展 S2.3 Innovation-driven development	S2.3.1 研发与创新管理体系 S2.3.1 R&D and innovation management system	专题聚焦 2：科技创新成果 Topic 2: Achievements in R&D Innovation
		S2.3.2 研发投入 S2.3.2 R&D investment	专题聚焦 2：科技创新成果 Topic 2: Achievements in R&D Innovation
		S2.3.3 创新成果 S2.3.3 Innovative outcomes	专题聚焦 2：科技创新成果 Topic 2: Achievements in R&D Innovation
		S2.3.4 知识产权保护 S2.3.4 Intellectual property protection	专题聚焦 2：科技创新成果 Topic 2: Achievements in R&D Innovation
S3 供应链安全与管理 S3 Supply Chain Safety and Management	S3.1 供应商管理 S3.1 Suppliers management	S3.1.1 供应商选择与管理 S3.1.1 Supplier selection and management	质量管理 Quality Management
		S3.1.2 供应商数量及分布 S3.1.2 The number and distribution of suppliers	关键绩效表 ESG Key Performance
	S3.2 供应链环节管理 S3.2 Supply chain link management	S3.2.1 供应链管理政策及措施 S3.2.1 Supply chain management policies and measures	质量管理 Quality Management
		S3.2.2 供应链安全保证与应急预案 S3.2.2 Supply chain security and contingency plans	质量管理 Quality Management
		S3.2.3 重大风险与影响（供应链） S3.2.3 Major risks and impacts (supply chain)	质量管理 Quality Management
		S4 国家战略响应 S4 National Strategy Response	S4.2 社区共建 S4.2 Community development
S4.3 社会公益活动 S4.3 Social welfare activities	S4.3.1 参与社会公益活动的政策措施 S4.3.1 Policies and measures to participate in social welfare activities		
	S4.3.2 参与社会公益活动的投入及成效 S4.3.2 Inputs and effectiveness of participation in social welfare activities		履行社会责任 Fulfillment of Social Responsibilities
S4.4 国家战略响应 S4.4 National strategy response	S4.4.1 产业转型 S4.4.1 Industrial transformation		数字化赋能建造 Digital Empowerment
	S4.4.2 乡村振兴与区域协同发展 S4.4.2 Rural revitalization and coordinated development		履行社会责任 Fulfillment of Social Responsibilities
	S4.4.3 一带一路及海外履责 S4.4.3 Belt and Road Initiative and responsibility implementation		专题聚焦 3：共建“一带一路” Topic 3: Jointly Building the Belt and Road Initiative

治理范畴指标

Governance indicators

一级指标 Primary indicators	二级指标 Secondary indicators	三级指标 Tertiary indicators	回应章节 Location
G1 治理策略与组织架构 G1 Governance Strategy and Organizational Structure	G1.1 治理策略及流程 G1.1 Governance strategy and processes	G1.1.4 党建引领 G1.1.4 Party building guidance	专题聚焦 1：深化党建引领 Topic Focus 1: Deepening Party Building Leadership
		G1.2.2 董事会、监事会和管理层组织结构与职能 G1.2.2 Organizational structure and functions of Board of Directors, Supervisory Board and Management Levels	完善公司治理 Improvement of Corporate Governance
	G1.2 组织构成及职能 G1.2 Organizational structure and functions	G1.2.3 董事会、监事会和管理层的任命程序及构成 G1.2.3 Appointment procedures and composition of Board of Directors, Supervisory Board and Management Levels	完善公司治理 Improvement of Corporate Governance
G2 规范治理 G2 Standardized Governance	G2.1 内部控制 G2.1 Internal control	G2.1.1 内部审计 G2.1.1 Internal audit	全面风险管理 Comprehensive Risk Management
		G2.1.2 内控控制结构、机制和流程 G2.1.2 Internal control and control structure, mechanism and process	合规廉洁建设 Construction of Compliance and Integrity Practices
	G2.2 廉洁建设 G2.2 Integrity Building	G2.2.1 廉洁建设制度规范 G2.2.1 Institutional norms for integrity building	合规廉洁建设 Construction of Compliance and Integrity Practices
		G2.2.2 廉洁建设措施成效 G2.2.2 Achievements of integrity building measures	合规廉洁建设 Construction of Compliance and Integrity Practices
	G2.3 公平竞争 G2.3 Fair competition	G2.3.1 公平竞争制度规范 G2.3.1 Institutional norms of fair competition	合规廉洁建设 Construction of Compliance and Integrity Practices
		G2.3.2 公平竞争措施成效 G2.3.2 Effectiveness and measures of fair competition	合规廉洁建设 Construction of Compliance and Integrity Practices
G4 信息披露透明度 G4 Information Disclosure Transparency	G4.1 信息披露制度 G4.1 Information disclosure system	G4.1.2 非财务信息披露 G4.1.2 Non-financial information disclosure	可持续发展管理 Sustainable Development Management
	G4.2 信息披露治理 G4.2 Information disclosure governance	G4.2.1 所以披露信息定期监督、审计和评估 G4.2.1 Regular monitoring, auditing and evaluation of disclosed information	可持续发展管理 Sustainable Development Management

一级指标 Primary indicators	二级指标 Secondary indicators	三级指标 Tertiary indicators	回应章节 Location
G5 合规经营与风险管理 G5 Compliance Operations and Risk Management	G5.1 合规经营 G5.1 Compliance operations	G5.1.1 合规经营制度 G5.1.1 Compliance operations System	合规廉洁建设 Construction of Compliance and Integrity Practices
		G5.1.2 合规体系建设情况 G5.1.2 The progress of compliance system building	合规廉洁建设 Construction of Compliance and Integrity Practices
		G5.1.3 合规审查具体流程 G5.1.3 Compliance review process	合规廉洁建设 Construction of Compliance and Integrity Practices
	G5.2 风险管理 G5.2 Risk management	G5.2.1 风险识别与预警 G5.2.1 Risk identification and warning	全面风险管理 Comprehensive Risk Management
		G5.2.2 风险控制与追踪 G5.2.2 Risk control and tracking	全面风险管理 Comprehensive Risk Management
		G5.2.3 风险报告与管理 G5.2.3 Risk Reporting and management	全面风险管理 Comprehensive Risk Management

附录二：GRI 标准索引表

Appendix 2: GRI Standards Index

用说明使 Explanation	中国十五冶金建设集团有限公司（简称“中国十五冶”）在 2024 年 1 月 1 日至 2024 年 12 月 31 日参照 GRI 标准，报告了在此份 GRI 内容索引中引用的信息。 15MCC has reported with reference to the GRI Standards for the period January 1, 2024, to December 31, 2024.
使用的 GRI 1 GRI 1 used	GRI 1：基础 2021 GRI 1: Foundation 2021

GRI 指标 GRI Indicators	相关解释 Explanation	相关章节 Location
GRI 2 一般披露 GRI 2 General Disclosures	G2-1 组织细节 Organizational details	关于我们 About Us
	G2-2 组织及其报告做法 The organization and its Reporting practices	关于本报告 About this Report
	G2-3 报告期、频率和联络点 Reporting Period, frequency, and contact point	关于本报告 About this Report

GRI 指标 GRI Indicators		相关解释 Explanation		相关章节 Location
GRI 2 一般披露 GRI 2 General Disclosures	组织及其报告做法 The organization and its Reporting practices	G2-4	信息重述 Restatements of information	关于本报告 Regarding this report
	活动和工作者 Activities and workers	G2-6	活动、价值链和其他业务关系 Activities, value chain, and other business relationships	可持续发展管理 Sustainable Development Management
		G2-7	员工 Employees	赋能员工发展、员工关怀福利 Empowerment of Employee Development and Employee Care and Benefits
	管治 Governance	G2-9	管治架构和组成 Governance structure and composition	完善公司治理 Improvement of Corporate Governance
		G2-11	最高治理机构的主席 Chair of the highest governance body	完善公司治理 Improvement of Corporate Governance
		G2-12	在管理影响方面，最高管治机构的监督作用 he supervisory role of the highest governance body in managing impacts	完善公司治理 Improvement of Corporate Governance
		G2-13	为管理影响的责任授权 Delegation of responsibility for managing impacts	完善公司治理 Improvement of Corporate Governance
		G2-14	最高管治机构在可持续发展报告中的作用 Role of the highest governance body in sustainability Reporting	完善公司治理 Improvement of Corporate Governance
		G2-16	重要关切问题的沟通 Communication of critical concerns	利益相关方沟通 Stakeholder engagement
		G2-17	最高管治机构的共同知识 Common knowledge of the highest governance body	完善公司治理 Improvement of Corporate Governance
		G2-19	薪酬政策 Remuneration policy	维护员工权益 Protection of Employee Rights and Interests
		G2-22	关于可持续发展战略的声明 Statement on sustainable development strategy	董事长致辞 Letter from the Chairman
		战略、政策和实践 Strategies, policies and practices	G2-23	政策承诺 Policy commitments
	G2-24		融合政策承诺 Integrate policy commitments	完善公司治理 Improvement of Corporate Governance
	G2-26		寻求建议和提出关切的机制 Mechanisms for seeking advice and raising concerns	精进客户服务 Enhancement of Customer Service

GRI 指标 GRI Indicators		相关解释 Explanation		相关章节 Location
GRI 2 一般披露 GRI 2 General Disclosures	战略、政策和实践 Strategies, policies and practices	G2-27	遵守法律法规 Compliance with laws and regulations	合规廉洁建设 Construction of Compliance and Integrity Practices
	利益相关方参与 Stakeholder engagement	G2-29	利益相关者参与的方法 Approach to stakeholder engagement	利益相关方沟通 Stakeholder Engagement
GRI 3 实质性议题 GRI 3 Material Topics		G3-1	确定实质性议题的过程 Process to determine material topics	实质性体识别 Material Topics
		G3-2	实质性议题清单 List of material topics	实质性体识别 Material Topics
		G3-3	实质性议题的管理 Management of material topics	实质性体识别 Material Topics
GRI 401 雇佣 GRI 401 Employment		G401-1	新进员工和员工流动率 New employee hires and employee turnover	维护员工权益 Protection of Employee Rights and Interests
		G401-2	提供给全职员工（不包括临时工或兼职工工）的福利 Benefits provided to full-time employees that are not provided to temporary or part-time employees	维护员工权益 Protection of Employee Rights and Interests
		G401-3	育儿假 Parental leave	维护员工权益 Protection of Employee Rights and Interests
GRI 402 劳资关系 GRI 402 Industrial Relations		G402-1	有关运营变更的最短通知期 Minimum notice period for operational changes	利益相关方沟通 Stakeholder engagement
GRI 403 职业健康与安全 GRI 403 Occupational Health and Safety		G403-1	职业健康安全管理体系 Occupational health and safety management system	应急保障体系 Emergency Support System
		G403-2	危害识别、风险评估和事故调查 Hazard identification, risk assessment, and incident investigation	应急保障体系 Emergency Support System
		G403-3	职业健康服务 Occupational health services	员工关怀福利 Employee Care and Benefits
		G403-4	职业健康安全事务：工作者的参与、意见征询和沟通 Worker participation, consultation, and communication on occupational health and safety	应急保障体系 Emergency Support System
		G403-5	劳动者的职业健康和培训 Worker training on occupational health and safety	应急保障体系 Emergency Support System

GRI 指标 GRI Indicators		相关解释 Explanation		相关章节 Location
GRI 403 职业健康与安全 GRI 403 Occupational Health and Safety	G403-6	促进工人健康 Promotion of worker health		员工关怀福利 Employee Care and Benefits
	G403-7	预防和减缓与业务关系直接相关的职业健康安全影响 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		员工关怀福利 Employee Care and Benefits
	G403-8	职业健康安全管理体系覆盖的工作者 Workers covered by an occupational health and safety management system		应急保障体系、员工关怀福利 Emergency Support System, Employee Care and Benefits
	G403-9	工伤 Work-related injuries		应急保障体系 Emergency Support System
	G403-10	工作相关的健康问题 Work-related ill health		员工关怀福利 Employee Care and Benefits
GRI 404 培训与教育 GRI 404 Training and Education	G404-1	每名员工每年接受培训的平均小时数 Average hours of training per year per employee		赋能员工发展 Empowerment of Employee Development
	G404-2	员工技能提升方案和过度协助方案 Programs for upgrading employee skills and transition assistance programs		赋能员工发展 Empowerment of Employee Development
GRI 405 多元化与平等机会 GRI 405 Diversity and Equal Opportunities	G405-1	管治机构与员工的多元化 Diversity of governance bodies and employees		维护员工权益 Protection of Employee Rights and Interests
GRI 406 反歧视 GRI 406 anti-discrimination	G406-1	歧视事件及采取的纠正行动 Discrimination incidents and corrective actions taken		维护员工权益 Protection of Employee Rights and Interests
GRI 414 供应商社会评估 GRI 414 Supplier Social Assessment	G414-1	使用社会标准筛选的新供应商 New suppliers that were screened using social criteria		质量管理 Quality Management
GRI 415 公共政策 GRI 415 public policy	G415-1	政治捐赠 Political donations		履行社会责任 Fulfillment of Social Responsibilities
GRI 416 客户健康与安全 GRI 416 Customer Health and Safety	G416-1	对产品和服务类别的健康与安全影响的评估 Assessment of the health and safety impacts of product and service categories		质量管理 Quality Management
	G416-2	涉及产品和服务的健康与安全影响的违规事件 Incidents of non-compliance concerning the health and safety impacts of products and services		质量管理 Quality Management

读者意见反馈表

Reader's Feedback

尊敬的读者：

您好！感谢您阅读《中国十五冶金建设集团有限公司 2024 年度可持续发展报告》（以下简称“本报告”），我们在此诚挚地邀请您对本报告提出宝贵的意见和建议，以帮助改善我们的工作。

Dear reader,

Thank you for your time to read the 2024 Sustainability Report of China 15th Metallurgical Construction Group Corporation Limited ("The Report"). We would appreciate it if you could send us your suggestions to help us improve our work performance.

针对下列问题，请在适当处勾选您的选择
Place a tick in the column beside the questions.

1. 您对本报告对总体满意度评价

1. What is your overall assessment of the Report?

☐ 非常差 Very poor

☐ 较差 Poor

☐ 一般 Fine

☐ 较好 Good

☐ 非常好 Very good

2. 本报告完整地回应、披露了利益相关方的议题

2. Has the Report comprehensively responded to and disclosed the information related to stakeholders?

☐ 非常差 Very poor

☐ 较差 Poor

☐ 一般 Fine

☐ 较好 Good

☐ 非常好 Very good

3. 本报告披露的信息及资料清晰、准确、完整

3. Are the information and data disclosed in an articulate, accurate and complete manner?

☐ 非常差 Very poor

☐ 较差 Poor

☐ 一般 Fine

☐ 较好 Good

☐ 非常好 Very good

4. 本报告全面、准确地反映了十五冶对社会与环境的重大影响

4. Has the Report fully and accurately reflected 15MCC's major impact on the society and environment?

☐ 非常差 Very poor

☐ 较差 Poor

☐ 一般 Fine

☐ 较好 Good

☐ 非常好 Very good

5. 本报告的逻辑主线、语言文字、版式设计条理清晰、可读性强

5. How is the readability of this Report, such as Report logic, language, layout and readability?

☐ 非常差 Very poor

☐ 较差 Poor

☐ 一般 Fine

☐ 较好 Good

☐ 非常好 Very good

请您对以下问题作出简要回答
Please give a brief answer to the following questions

1. 在本报告披露的内容中，您最关心或最满意的部分有哪些？
Which information disclosed in the Report do you think are most interested in or satisfying?

2. 本报告是否存在您所关注却尚未披露的内容？
2. What information of your interest has not been covered in the Report?


3. 针对本报告，您是否有其他意见或建议？
3. Is there any suggestion for this Report?

您可以通过邮寄或电子邮件的方式对问卷进行反馈，亦可直接来电说明。我们将充分考虑您的意见和建议。


You can fill out the feedback form by contacting us in various ways including telephone, email, as well as by fax and post. We will take your suggestions into consideration.



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