



CHINA REGULATORY OBSERVATION

MARCH 2024

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Message from BESTAO

Dear Readers,

We're pleased to present you the March 2024 edition of China Regulatory and Compliance Observation for AEM.

In the edition, policies, laws, regulations, certification and standards for agricultural machinery, construction, earth-moving, cybersecurity and data security etc. of China in March 2024 are elaborated.

The horizontal section puts forward the key takeaways from China's Two Sessions, and a national policy to facilitate and attract foreign investments.

The agricultural and forestry machinery section covers the briefing on new standard and appraisal on electric tractors, and an analysis on the latest quality inspection requirements in China for some types of agricultural machinery.

The construction, mining and earth-moving machinery section presents the latest key information for a bunch of national standards, and the dynamics on the mining TC's work.

Other important topics covered in this issue range from cybersecurity and standardization.

The policy briefing of this edition is an update on China RoHS, regarding an on-going mandatory standard.

Enjoy the reading.

Best Regards,

AEM project team of BESTAO



Horizontal

1. China Convenes the Biggest Annual Political Event

The Two Sessions, China's paramount yearly political gathering, encompass the annual meetings of the National People's Congress, the nation's highest legislative body, and the National Committee of the Chinese People's Political Consultative Conference, the premier political advisory entity. This event draws worldwide attention to Beijing, spotlighting China's socioeconomic advancements and future development strategies. Presented below are the essential insights gleaned from the Two Sessions for AEM and its members.

GDP growth. Since the Party's "20th National Congress", the importance of "safety" has been rising. But the economy remains a major concern this year. The target of 5% GDP growth is not only tough, it is ambitious. The government hopes that while continuously attracting foreign investment and vigorously stimulating consumption, it will actively use fiscal policy to alleviate the current downward pressure on the economy by issuing long-term national bonds. It remains to be seen to what extent these policies will solve the current economic problems.

Key concept. The concept of "new quality productivity" proposed by the current two sessions is broad and flexible. It not only contains the significance of scientific and technological innovation, science and technology power, but also contains the purpose of serving national security and science and technology

independence." "Security" issues are implemented in the high-tech sector and the digital economy through this new concept and related policies.

Sino-US relationship. The relationship between China and the United States is another focus of this year. Behind the foreign ministry's tough response during the two sessions, this is likely to be a year of thaw in Sino-US relations. The consensus of San Francisco summit, which calls for the steady and healthy development of bilateral relations, may be the main theme of China-US relations in the coming year.

Government's report. In addition, the government's report especially highlights the importance of the efforts to tackle key and core agricultural technologies, and improve weak links in agricultural machinery and equipment. It represents government's commitment in this area. Therefore, the extent to which that this will impact the operation and business of foreign stakeholders in China remains unclear.

In conclusion, AEM and its members are recommended to keep up with the following measures and actions taken by Chinese authorities, especially in the field of agriculture machinery and equipment. Also, the easing-off Sino-US relationship might be able to contribute to the general industrial cooperation and American's business in China.

2. China to Launch Large-Scale Industrial Equipment Renewal Initiative

On March 7, 2024, the State Council issued the "Action Plans for Promoting Large-Scale Equipment Renewal and Consumer Goods Replacement". This document proposes to:

- i) Renew equipment in industries such as industry, construction, transportation, etc.
- ii) Implement old-for-new programs for consumer products such as automobiles, household appliances, and home decoration.

iii) Promote recycling and reuse of waste materials.

iv) Conduct standard improvement actions.

The aim of the document is to promote industrial upgrading, energy conservation, emission reduction, and consumption growth. The contents related to the mobile machinery industry in the document are summarized as follows:

- **Key Industries Equipment Renewal and Transformation**

Focus on key industries such as steel, non-ferrous metals, petrochemicals, chemicals, building materials, electricity, machinery, aviation, shipping, textiles, and electronics, vigorously promote the renewal and technological transformation of production equipment, energy-using equipment, and power transmission and distribution equipment. Accelerate the promotion of energy-efficient equipment reaching advanced and energy-saving levels, and implement energy-saving and carbon reduction transformations by industry and sector. Promote the application of intelligent manufacturing equipment and software, accelerate the construction of industrial Internet, and promote its widespread application. Strictly implement mandatory standards for energy consumption, emissions, safety, etc., and eliminate substandard equipment according to laws and regulations.

- **Renewal of Old Agricultural Machinery**

Continue to implement the subsidy policy for the scrapping and renewal of agricultural machinery, solidly promote the scrapping and renewal of old equipment, and accelerate the structural adjustment of agricultural machinery.

- **Promote Remanufacturing and Graded Utilization**

Encourage the remanufacturing of waste production equipment that meets remanufacturing conditions. The quality characteristics and safety and environmental performance of remanufactured product equipment should not be lower than those of the original new products. Deepen the remanufacturing of traditional equipment such as automotive parts, construction machinery, and machine tools. Accelerate the research and development of assessment technologies for residual life of products and equipment such as wind power, photovoltaics, power batteries, and orderly promote the graded utilization of products, equipment, and key components.

- **Improve Energy Consumption, Emissions, and Technical Standards**

Benchmarking against international advanced levels, accelerate the revision of mandatory national standards for energy consumption limits, product and equipment energy efficiency, and dynamically update the advanced level, energy-saving level, and access level of key energy-using products and equipment, and accelerate the improvement of energy-saving indicators and market access thresholds. Accelerate the improvement of emission standards in key industries, optimize and enhance the control level of emissions such as air and water pollutants. Revise and improve the evaluation index system for clean production and the carbon emission accounting standards for key industries.

To implement the above actions, the document proposes the following support policies:

- **Fiscal Policy:** Include eligible equipment renewal and recycling projects in the scope of funding support from the central budget. Effectively implement the subsidy policy for scrapping and renewal of agricultural machinery. The central government establishes special funds to support the recycling and disposal of discarded electrical and electronic products. Continue to improve government green procurement policies and increase the procurement of green products.

- Tax Policy: Increase tax incentives for energy-saving, water-saving, environmental protection, and safety production special equipment, and include digital and intelligent transformations in the scope of these incentives.
- Financial Support: Use refinancing policy tools to guide financial institutions to strengthen support for equipment renewal and technological transformation. The central government provides interest subsidy support for bank loans meeting the reimbursement conditions.

This document is a top-level policy document issued by the State Council, which will bring about the renewal and replacement of many types of production equipment in various industries, bringing new business opportunities to manufacturers of intelligent and green mobile machinery products. In addition, the document also reflects China's continued tightening of energy conservation and emission reduction standards and the raising of market access thresholds, posing new challenges to overseas manufacturers of mobile machinery equipment.

3. Favourable Policies Issued on a National Level to Attract Foreign Investment

On March 19, 2024, the State Council unveiled the Action Plan for Steady Advancement in High-level Opening-up and Enhanced Efforts to Attract and Leverage Foreign Investment (hereinafter referred to as "the Action Plan.")

This comprehensive strategy aims to elevate the nation's openness while addressing the imperative of industrial restructuring and rectifying the current imbalance in foreign investment distribution across China, which predominantly favors the eastern and coastal regions.

Key highlights of the Action Plan encompass:

- **Broadening Market Access:** The Action Plan proposes the expansion of sectors accessible to foreign investment, eliminating previous restrictions in areas such as telecommunications, banking, the bond market, insurance, and healthcare.
- **Enhanced Supportive Policies:** Efforts will be made to bolster sectors enticing foreign investors, encompassing advanced manufacturing, high technology, energy efficiency, and environmental protection. Supportive policies, including tax incentives, energy subsidies, and financial assistance, will be extended. Moreover, significant support will be directed toward attracting foreign investment in the middle, northeastern, and western regions.
- **Optimized Fair Competition Environment and Improved Investment Services:** The Action Plan advocates for the elimination of practices and policies that undermine fair competition. It calls for the refinement of bidding processes, equitable participation of foreign enterprises in standard setting, and bolstered market oversight and regulatory enforcement. Additionally, service provisions for foreign enterprises will be enhanced.
- **Facilitation of Innovative Collaboration between Foreign and Domestic Enterprises:** Measures will be taken to facilitate data exchange between foreign subsidiaries and their headquarters. Efforts will also be made to streamline international logistics for foreign businesspersons through improved visa services and transport infrastructure, including increased international flight routes. Furthermore, foreign enterprises will be encouraged and supported in their participation in national major research and development initiatives and scientific-technological projects.
- **Enhancement of Business Regulations and Alignment with International Trade Standards:** The

Action Plan emphasizes the strengthening of intellectual property protection measures and the optimization of regulations governing cross-border data transfers. Additionally, initiatives will be undertaken to actively pilot the implementation of international trade rules.

In essence, the Action Plan represents a proactive endeavour to elevate China's openness to the global economy, foster a conducive environment for foreign investment, promote fair competition, and facilitate innovative collaboration between domestic and foreign enterprises, thereby advancing the nation's economic development and global integration.

Detailed contents that may relate to AEM and AEM members are summarized as follows:

- All restrictions on manufacturing sectors for foreign investment will be removed.
- High-end equipment manufacturing will be supported to be added to major and significant foreign investing lists, meaning access to relevant favourable policies.
- Middle, northeastern, and western regions will provide more land/energy/labour use and cost-favourable measures and policies.
- Support foreign-invested enterprises to participate in the standardization TCs of advanced manufacturing, engineering materials, information, communications, or relevant standardization organizations under the same conditions, and participate in the formulation and revision of standards on an equal footing according to law. Information disclosure on national standards will be provided in a timelier manner, and the transparency and openness of standardization work will be improved.

In all, the Action Plan will obviously provide more supportive measures for foreign investments in various perspectives, and those intending to search market opportunities in China for integrated circuits, biomedical, high-end equipment, finance, insurance, etc., especially the manufacturing sectors should benefit from these national-level measures.



Agricultural and Forestry Machinery

4. Three Association Standards Issued for Electric Tractors

On March 20, 2024, the Chinese Society for Agricultural Machinery issued six association standards on agricultural machinery, and three of them relate to electric tractors. They are all under

the managing jurisdiction of SAC/TC140 (tractors) and will be implemented on May 20, 2024.

The key contents of these three standards are summarized below:

Standard No. and Name	Main Contents
T/NJ 1308—2024 Electric tractors— Performance test method	It specifies the test conditions of the power system of the electric drive tractor, the performance test method of the pure electric tractor, and the performance test method of the hybrid electric tractor. It applies to electric tractors such as lithium batteries, fuel cells, and supercapacitors as power sources.
T/NJ 1309—2024 Pure electric tractors— Performance index calculation method	It defines the calculation method of the main performance indexes for the operation of operation of complete pure electric tractor. It is applicable to the calculation of complete tractor design of pure electric.
T/NJ 1318—2024 Electric tractor— terminology	It defines the terms and definitions associated with electric tractors. It is applicable to the whole electric tractor and drive motor system.

The significance of these three standards is they are presently the only general standards drafted by the National Tractor TC (SAC/TC 140) under the topic of electric tractors. Being one of the key product types for agricultural machinery, tractors are also considered to be the few ones in its category that may achieve a new energy usage/transition.

For AEM and AEM members, these standards are good observing references to understand and

peek into the standardization direction for the electric tractors in China. In the meantime, China's Interim Provisions on Conversion of Association Standards into Recommended National Standards 1 (by the Standardization Administration of China in August of 2023) has provided the possibility for association standards to become national ones, once the development of electric tractors thrives in the future, it is likely that these standards be elevated into national voluntary standards.

¹ Further information on this document please refer to item #4 of the monthly report named **20230915 BESTAO-AEM China**

5. Call-for-comment: Implementation Measures of the Supervision and Spot Checks for Corn Combine

From March 12, 2024, to March 19, 2024, SAMR solicited opinions on the implementation details of quality supervision and spot checks for 147 types of products, including corn combine products. The requirements of this implementation detail are as follows:

Sampling Method:

Samples shall be selected randomly from the products awaiting sale by the sampled producers and sellers. Random numbers can be generated using methods such as random number tables. Two samples shall be drawn from each batch of products for inspection.

Inspection Items and standards adopted:

No.	Test Items	Test Methods (Standards)
1	Safety distance	GB 10395.1—2009
2	Moving parts	GB/T 21962—2020
3	Starting and stopping of the engine	GB 10395.1—2009 GB/T 21962—2020
4	Rearview mirror and horn	GB 10395.7—2006 GB/T 21962—2020
5	Dynamic environmental noise	GB 19997—2005
6	Noise at the operator's position	GB 19997—2005
7	Grain tank and grain tank auger conveyor	GB 10395.7—2006
8	Fire extinguisher	GB 10395.7—2006
9	Control mechanism	GB 10395.1—2009 GB 10395.7—2006
10	Operator's workstation	GB 10395.1—2009
11	Ladder (including handrails)	GB 10395.1—2009 GB 10395.7—2006
12	Header locking mechanism	GB 10395.7—2006
13	Electrical equipment and batteries	GB 10395.1—2009 GB 10395.7—2006 GB/T 21962—2020
14	Exhaust gas	GB 10395.1—2009
15	Shearing and crushing areas	GB 10395.1—2009 GB 10395.7—2006
16	Header drive system separation mechanism	GB 10395.7—2006
17	Cab emergency exit	GB 10395.1—2009 GB 10395.7—2006

18	Seat size and arrangement	GB 10395.1—2009 GB 10395.7—2006
19	Cab size	GB 10395.7—2006
20	Corn picker head	GB 10395.7—2006
21	Lighting equipment	GB/T 21962—2020
22	Sealing performance	GB/T 21962—2020
23	Signage	GB 10395.1—2009 GB 10395.7—2006 GB/T 21962—2020

Main Standards adopted:

- GB 10395.1—2009 Agricultural and forestry machinery - Safety - Part 1: General requirements
- GB 10395.7—2006 Tractors and machinery for agriculture and forestry - Technical means for ensuring safety - Part 7: Combine harvesters, forage and cotton harvesters
- GB 19997—2005 Limits for noise emitted by the combined harvester
- GB/T 21962—2020 Corn combined harvester
- Currently effective enterprise standards, association standards, and local standards are implemented, as well as the quality explicitly indicated by the manufacturer.

Judgment Principles:

After inspection, if all items in inspection items 1 to 3 are qualified, and the number of unqualified items in inspection items 4 to 23 is no more than 3, it is determined that the sampled products are not found to be unqualified; otherwise, it is determined that the sampled products are unqualified.

- If the quality level specified by the manufacturer is higher than the standards cited in this document, the judgment shall be based on the quality level indicated by the manufacturer.
- If the quality level indicated by the manufacturer is lower than the mandatory standard cited in this document, the judgment shall be based on the mandatory standards.
- If the quality level indicated by the manufacturer is lower than or includes the voluntary standards cited in this document, the judgment shall be based on the quality level indicated by the manufacturer.

Product quality supervision and spot checks are one of the market supervision activities stipulated in the "Interim Measures for the Administration of Product Quality Supervision and Spot Checks." For products with inspection conclusions indicating non-compliance, the sampled producers and sellers shall immediately cease production and sales of the same product. Sampled producers and sellers with serious quality issues in the sampled products shall be dealt with by the county-level market supervision and administration department by relevant laws and regulations; where there are no provisions in laws and regulations, a fine of up to 30,000 CNY (around 4,100 USD) shall be imposed; if it constitutes a crime and criminal responsibility needs to be investigated according to law, it shall be transferred to the public security organs according to relevant regulations.

This document indicates that in addition to mandatory standards, voluntary standards may also be referenced in market supervision activities, posing risks to products. It is recommended that overseas

companies closely monitor national standards and sector standards related to their products to reduce compliance risks.

6. Two Promotion and Appraisal Outlines for Agricultural Machinery Seeking Public Opinion

On March 5, 2024, the Agricultural Mechanization Central Station (AMCS) of the Ministry of Agriculture and Rural Affairs publicly solicited opinions on two outlines for the promotion appraisal of agricultural machinery: *"Electric Wheel Tractors (Draft for Comments)"* and *"Rubber Harvesters (Draft for Comments)"*. The deadline for submission is April 7, 2024.

The outlines for the promotion appraisal of agricultural machinery serve as the basis for conducting promotion appraisal of agricultural

machinery products, and obtaining a promotion appraisal certificate is one of the basic conditions for agricultural machinery products to qualify for agricultural machinery purchase subsidies. Therefore, enterprises producing products aiming to enter the subsidy list should pay attention to the formulation and revision of these outlines.

These two documents can be downloaded here (in Chinese). For translated versions of these documents or to provide feedback, please contact us.



Construction Machinery and Utility

7. SC Called for National Standard Projects on Special Equipment Energy-saving

On March 25, 2024, the China Promotion Association for Special Equipment Safety and Energy-saving, the organizer of China's SAC/TC20/SC12 (Special Equipment Energy-saving, hereinafter referred to as "the SC") secretariat, issued notice to call for national standard projects from its members on special equipment energy-saving.

It is an implementing action of the SC based on the requirements in the Notice on **Calling National Standard Projects on Carbon Peak and Carbon Neutrality in 2024** issued by the State Administration for Market Regulation (SAMR) on March 14, 2024.

Based on the two notices of the SC and SAMR, the scope of proposed standard projects is:

- **Carbon emission management:** calculation method, product carbon footprint, and evaluation on carbon emission reduction for manufacturers with big emissions.
- **Carbon emission reduction management:** carbon reduction standards on key technologies; encourage technically advanced association standards with excellent implementation to be converted into national standards.
- **Energy efficiency standards on new types of equipment:** energy efficiency standards on industrial equipment/facility that needs big energy consumption.
- **Energy consumption allowable limit:** upgrade

or renew mandatory allowable limit for key sectors.

- **Carbon removal technologies:** technical standards on Carbon Capture, Utilization, and Storage (CCUS), together with carbon sink.

AEM and AEM members are advised to follow up on the future steps on the proposals on special equipment, and actively participate in relevant standard drafting/proposing. With China's encouragement for foreign enterprises' participation in standard works, and the country's will to provide a fairer environment for MNCs to do so, it should be easier for AEM members with the intention to enter the country's standardization systems.

In addition, although the project-calling period ended on April 6, 2024, AEM and AEM members are also advised to notice that the proposal template provided by the SC on standard projects is used by a majority of Chinese TC/SCs, and it is a starting perspective to see what contents/research an enterprise/organization need to prepare in order to apply for a standard project: i) project significance; ii) scope and main technical contents; iii) status of counterparts (if any) in the international standardization community; iv) correlation with relevant Chinese laws/regulations and mandatory standards; iv) list of involving products; v) any connection with any patent, etc.

8. Three Construction Machinery Standards Will Have Official English Version

On March 9, 2024, the China Machinery Industry Federation (CMIF) issued notice to submit the English version of seven national standards for the approval of the Standardization Administration of China (SAC). Three standards are relevant to AEM products:

Standard No.	Standard Name	Key Contents	Implementation Date
GB/T 26408-2020	Concrete truck mixer	It specifies the terms and definitions, model preparation rules, technical requirements, test methods, inspection rules and marking, packaging, transportation, and storage of concrete truck mixers. It applies to the inclined axis revolving drum type concrete truck mixer (rear end discharge type), and semi-trailer of inclined axis revolving drum type concrete truck mixer with the semi-trailer (rear end discharge type) towed by the tractor.	November 1, 2020
GB/T 9142-2021	Building construction machinery and equipment —Concrete mixer	It specifies the classification, type and parameters, technical requirements, test methods, inspection rules and marking, packaging, transportation, and storage of concrete mixers. It applies to the periodic concrete mixer with a rated capacity of less than 10000L (including 10000L) stipulated in GB/T 25637.1, and the mixer used in the concrete mixing station (building)	May 1, 2022
GB 5144-2006	Safety code for tower cranes	It specifies the safety technical requirements that tower cranes should comply with in terms of design, manufacturing, installation, use, maintenance, inspection, etc. It is applicable to all kinds of tower cranes for construction. Other uses of the tower crane can be used as a reference in operation. It does not apply to automotive, wheeled, and crawler tower cranes.	October 1, 2007

For AEM and AEM members, official translation for standards is no doubt a facilitation. Having been submitted for approval means the English version of these standards has entered the last step before publication. However, some practical cases of similar standard translation projects have been pending for approval for quite a long time (some even over a year), so in case of the urgent use for a Chinese standard with announcing an English official version, it is recommended to check with the responsible TC first to make sure the publication progress, and then decide whether it is necessary to turn to a translating service agency first.



Earth-moving and Mining Machinery

9. Mining Machinery TC Announcing 2024 Standard Projects and Calling for New Members

On March 5, 2024, SAC/TC88 (Mining Machinery) issued two notices: one announcing the annual standard project plan, and the other calling for new TC members.

Annual standard project plan

The annual working plan for SAC/TC88 contains 5 national standards, and 9 sector standards. For the national standards, they are all voluntary standards with the following key information:

Project No.	Standard Name	Standard to be replaced	Relation with International Standard
20231238-T-604	Mining—Air quality control systems for operator enclosures—Performance requirements and test methods	N/A Newly-drafted	Identical adoption of ISO 23875:2021
20231241-T-604	Underground mining machines/Mobile extracting machines - the safety requirements for shearer loaders and plough systems	N/A Newly-drafted	Identical adoption of ISO 19225:2017
20231666-T-604	Continuous surface miners-Safety requirements	N/A Newly-drafted	Identical adoption of ISO 19224:2017
20232003-T-604	Taxonomy of intelligent mobile mining machinery	N/A Newly-drafted	N/A
20231239-T-604	Aerial ropeways for underground mine-Design rules	GB/T 25652-2010	N/A

Calling for new TC member

The TC is undergoing a board change and is calling for new members too. The deadline for application has ended on April 6, 2024. Similar to other TCs that had called for new members, the qualifications for applicants for TC88 are:

- Work for functions of the mining machinery sector such as production, R&D, teaching, or testing for over three years, and should have abundant practical and theoretical experience.
- Owns professional title of medium level, or equivalent titles and has been working in the field for more than three years.
- Capable of actively participating in TC's relevant works, including but not limited to attending working meetings, providing feedback to draft for comments and draft for approval, voting on time, etc.
- Possess a good level of writing and foreign language skills.

- Candidate should work for an entity that has legally registered in China and the working place should approve their joining to the TC.
- Other relevant requirements are stipulated in the Administrative Measures of National Standardization Technical Committees.

Contact information of the member calling has also been provided as:

Organizer of the secretariat: Luoyang Mining Machinery Engineering Design and Research Institute

Contact person: Mr. Wang Yadong

Telephone number: +86 379 6408 7731

Email: tc88@kbxh.org.cn

Regarding these two notices, AEM and AEM members are advised to note that:

- Based on the principles stated in the **National Standardization Development Outline** (issued by the State Council in October of 2021), quite a proportion of China's newly drafted standards are adopted from international counterparts. It will facilitate MNCs and foreign stakeholders, as well as Chinese manufacturers in the global trade.
- For foreign stakeholders that intend to participate in China's standardization works, (which is also welcomed on the national level), a good place to start is to join the TCs and observe their new member calling is one of the best opportunities to join.
- The standard **Taxonomy of intelligent mobile mining machinery** may require further attention, as it could be the base and foundation of China's intelligent transition for mining machinery, especially when it is a standard that is fully drafted by local experts without any international standard adoption.

10. Seven National Standards on Electric Earthmoving Machinery Seeking Comments

Starting from March 15, 2024, SAC/TC334 (Earthmoving Machinery) has initiated the solicitation of comments on the following electric earthmoving standards, with the deadline set for April 14, 2024.

One of them is a general and overall standard for terminology:

- **Electric earth-moving machinery — Terminology**

It defines the terms and definitions associated with electric earth-moving machinery.

This document applies to the basic general, whole machine, key system and component, facilities, and interfaces of electric earth-moving machinery. Products with a level B voltage or above can refer to this standard.

Two standards apply to traction lithium-ion batteries for electric earth-moving machinery, and other types of traction batteries can be referred to as well:

- **Traction battery of electric earth-moving machinery—Part 1: safety requirements**

It specifies the safety requirements and test methods for traction battery cells, battery packs or systems for electric earth-moving machinery.

- **Traction battery of Electric earth-moving machinery—Part 2: electrical performance requirements**

It specifies the electrical performance requirements and test methods for traction battery cells, battery packs, or systems for electric earth-moving machinery.

The other four standards cover different product types:

- **Earth-moving machinery — Electric hydraulic excavator for plateau tunnels**
It specifies the terms and definitions, model formulation rules and parameters, requirements, test methods, inspection rules, marking, packaging, transportation, and storage of electric hydraulic excavators for plateau tunnels.
It is applicable to excavators with vehicle-mounted batteries (maximum working voltage is Class B) as the only power source and the working mass is not more than 50,000 kg used in plateau environmental conditions.
- **Earth-moving machinery — Battery electric wheel loaders for plateau tunnels**
It specifies the terms and definitions, requirements, test methods, inspection rules, marking, packaging, transportation, and storage of battery electric wheel loaders for tunnel construction in plateau tunnels' environmental conditions.
It is applicable to the manufacture and testing of loaders with on-board traction batteries (maximum operating voltage is Class B voltage) as the only power source used in plateau tunnels.
It does not apply to loaders operating in explosive atmospheres so other standards (such as GB 3836.1) can be referred to for design and requirements of such product type.
- **Earth-moving machinery — energy consumption for battery electric wheel loaders — Test methods**
It specifies the terms and definitions, the test conditions, the measurement method of energy consumption, the test method, and the energy consumption evaluation value of the energy consumption of battery electric wheel loaders,
It is applicable to the test of the energy consumption of such products in which the onboard traction battery is used as the only power source during operation.
- **Earth-moving machinery — Energy consumption for electric hydraulic excavators — Test methods**
It specifies the terms and definitions, test conditions, test methods, endurance evaluation methods, and operational efficiency evaluation methods for the energy consumption test of electric hydraulic excavators.
It is applicable to electric excavators using traction batteries as the only power source during the working process, and the maximum design total mass does not exceed 50000kg.

Electrification is one of the development directions for mobile machinery in China. Early participation in the formulation of relevant standards is conducive to gaining advantages in future market competition and even laying the groundwork for potential compliance in the future.

11. NEA Plans Standardization for the Intelligent Transition of Coal Mines

On March 13, 2024, the National Energy Administration (NEA) issued the "Guidelines for the Construction of Standardization System for Intelligent Coal Mines." This document outlines the direction and key content of standardization for intelligent coal mines in China, aiming to establish a comprehensive supply of standards by 2030 for the design, construction, production, management, operation, and evaluation of intelligent coal mines, thereby providing

technical support for the transformation of China's coal mines into intelligent ones.

The guidelines propose key standardization plans in five aspects: basic general, information infrastructure, platform and software, production systems and technical equipment, and operation and maintenance support and management. Among them, the standards for production systems and technical equipment are

closely related to mobile machinery products, as follows:

Standards for production systems and technical equipment include three parts: intelligent systems and equipment for underground coal mines, intelligent systems and equipment for open-pit mines, and intelligent washing and sorting systems and equipment.

- Standards for Intelligent Systems and Equipment (Underground Mines) mainly cover standards for intelligent geological protection, intelligent shaft sinking, intelligent excavation, intelligent mining, intelligent main transportation, intelligent auxiliary transportation, intelligent ventilation, intelligent pressure ventilation, intelligent power supply, intelligent safety monitoring, intelligent disaster prevention and control equipment, intelligent mine pressure management, intelligent water supply and drainage, intelligent water resource management, intelligent auxiliary operation equipment, and coal mine robots.
- Standards for Intelligent Systems and Equipment (Open-pit Mines) mainly cover standards for intelligent geological measurement and mining support systems, intelligent blasting systems, intermittent process intelligent systems for single-bucket-to-truck, intelligent systems for semi-continuous processes, intelligent systems for wheel-bucket continuous

processes, intelligent dispatching systems, intelligent disaster prevention and warning, intelligent auxiliary production systems, and robots for open-pit coal mines.

- Standards for Intelligent Washing and Sorting Systems and Equipment mainly cover standards for intelligent production control, intelligent coal quality detection, intelligent production assistance, intelligent production processes, intelligent washing and sorting equipment, and intelligent storage and transportation.

The document also states that the National Energy Administration will lead the establishment of standardization organizations in the field of intelligent coal mine, coordinate the revision of relevant standards, and timely revise and improve the guidelines and policy documents for the construction of the standardization system for intelligent coal mine based on the development level of coal mine intelligence technology and the implementation of standards, thus advancing the development of coal mine intelligence to a higher level.

Standards for coal mine intelligence, especially those related to production equipment, have a high relevance to mobile machinery. These standards will affect the future procurement of relevant production equipment by coal mines in China. We will continue to monitor the development of relevant standards and provide AEM with the latest updates.



Standardization

12. Revised Action Plan Announced for National Standardization Development Outlines

On March 18, 2024, the State Administration for Market Regulation (SAMR), jointly with other 17 national ministries, issued the **Action Plan of Implementing National Standardization Development Outline (2024-2025)** (hereinafter referred to as “the Action Plan 2024-2025”).

The **National Standardization Development Outline** (hereinafter referred to as the “Outline”) was issued by the State Council in 2021, and an Action Plan supporting the Outline’s objectives and goals was issued in the following year. The Action Plan 2024-2025 is a sequel to the first Action Plan. It can be considered as a second-round planning to further implement the principles and tasks in the Outline, therefore is of great significance.

The Action Plan 2024-2025 contains eight chapters that cover 35 detailed articles, with each article listing the main responsible regulators. The main contents include:

- **Strengthen the interaction between standardization and technical innovations.**
Focus on the standard breakthrough in key sectors such as integrated circuits, semiconductors, ICV, AI, etc.; bridging the major national scientific and technological achievements with standards to accelerate the standardization process and results from corresponding technical breakthroughs, while speeding up the standardized research for emerging technologies like metaverse, next-generation internet, etc.
- **Making the standardization sector more modernized.**
Optimize basic standard systems in key industrial sectors; the standard integration of emerging technologies with traditional sectors;
Industrial sectors should focus on standards that can enhance the industrial chain, sector innovation and infrastructure construction.
Stakeholders for regular products and services should focus on the step-up of standard criteria (e.g.: safety and energy saving) to stimulate customer consumption while optimizing safety and quality.
Improve
- **Optimize the standardization support for green development**
Standards systems revised regarding improving carbon peak and carbon neutrality, ecological environment protection and restoration, as well as natural resource saving, and those that can support green and low-carbon transition should be strengthened.
- **Improve the standardization development in rural and urban construction and social construction**
Standard systems should be optimized and developed to help rural revitalization, new type urbanization, as well as to improve administrative management, social governance, public service, elder caring, and public security.
- **Greatly improving the standardization on internationalization**
Expand international standardization cooperation and partnership with international organizations such as WTO, BRICS, APEC, and regions all over the world; encourage state-owned enterprises to deepen standardization cooperation in their overseas projects and cooperations.

Further and actively participate in international SDOs, including but not limited to ISO, IEC, Codex Alimentarius Commission (CAC), and World Organization for Animal Health (WOAH), etc. on the topics of carbon peak and carbon neutrality, digital technologies, GHG emission reduction, green and sustainable finance etc.

Most importantly, further increase the proportion of international standard adoption. The resemblance of TC structure should be more than 90% comparing with that of international SDOs, and conversion rate of international standards should be over 85%.

- **Deepen standardization reform and innovation**
Improve standard supply and management level; strengthen standard training and implementation supervision.
- **Strengthen the developing foundation for standardization**
Optimize the foundation on standardization, including basic theoretical research, standard experiment and verification, personnel training, and the establishment of professional technical institutions.
- **Implementation**
Strengthen current standard management system on all levels of governments; provide more policy support for streamlining standard working process, statistical work, awarding for excellent personnel and achievements etc.

Other key takeaways that directly link to AEM and AEM members besides the aforementioned international cooperation section include:

- Standard pilot projects will be initiated for facilitating the development of intelligent manufacturing, and the intelligent transition of traditional sectors like mining and other main machinery sectors.
- New standard on noise limit standards will be drafted for commonly used machinery if there are no existing ones.
- Making standard one of the tools to encourage equipment upgrades for better quality and safety.
- Special equipment will be one of the key sectors that will have more safety-relevant standards drafted or revised. Additionally, standard quality for special equipment will be improved from national to sector and regional standards. Relevant and high-quality association standards are encouraged to be converted into national voluntary ones.

In all, China seems to further emphasize the importance of standardization for its economic development, and green and intelligent transition. Most articles within the Action Plan 2024-2025 can match one or more of the country's key development policies or objectives in recent years, marking its outstanding position. In addition, great efforts will be put into the country to improve the standardization's effects and functions, while expanding international influence. AEM members with business in China are also advised to be more active in the standard drafting in reputable associations as China is evidently pushing the possible conversion and is willing to entrust high-quality association standards with more importance.

13. Relevant Energy Efficiency and New Energy Standards to be Implemented

On March 15, 2024, the Standardization Administration of China (SAC) issued No.1 notice on national standards, announcing the approval and implementation date of 406 national standards.

Four of the standards, which are all newly drafted and will be implemented on October 1, 2024, stand out for their relevance with AEM products:

Energy efficiency of industrial trucks

Standard No.	Standard Name	Key Contents	Relation with International Standard
GB/T 43657.1-2024	Energy efficiency of industrial trucks—Test methods—Part 1: General	<p>It specifies general test criteria and requirements to measure the energy consumption for self-propelled industrial trucks (hereinafter referred to as trucks) during operation. For electric trucks, the efficiency of the battery and the battery charger is included. The truck-specific requirements in ISO 23308-2 and ISO 23308-3 take precedence over the respective requirements of ISO 23308-1.</p> <p>It is applicable to the in-use phase of the product life cycle.</p> <p>It applies to the following truck types: counterbalance lift truck; articulated counterbalance lift truck; reach truck (with a retractable mast or fork arm carriage); straddle truck; pallet-stacking truck; pallet truck; platform and stillage truck; order-picking truck; centre-controlled order-picking truck; towing, pushing tractor and burden carrier; towing and stacking tractor; side-loading truck (one side only); variable-reach container handler; counterbalance container handler; lateral-stacking truck (both sides); lateral-stacking truck (three sides); multi-directional lift truck.</p>	Identical with ISO 23308-1:2020
GB/T 43657.2-2024	Energy efficiency of industrial trucks—Test methods—Part 2: Operator-controlled self-propelled trucks, towing, and burden carrier trucks	This document specifies the method of energy consumption measurement for the following types of industrial trucks as defined in ISO 5053-1, covering all product types listed in GB/T 43657.1-2024 except variable-reach container handler and counterbalance container handler (which are covered in GB/T 43657.3-2024)	Identical with ISO 23308-2:2020
GB/T 43657.3-2024	The Energy efficiency of industrial trucks—Test methods—Part 3: Container handling lift trucks	It specifies the method of energy consumption measurement for container handling lift trucks, as defined in ISO 5053-1.	Identical with ISO 23308-3:2020

Key takeaways for AEM and AEM members:

- All three standards are identical adoptions of international ones, making it easier for foreign manufacturers to conform.
- Stricter technical requirements on energy efficiency is one of the key measures in China for the green transition of machinery sectors, and a method for achieving carbon peak and carbon neutrality goals of the country, posing high significance.

Lithium-ion batteries

Standard No.	Standard Name	Key Contents	Relation with International Standard
GB/T 43695-2024	Energy conversion efficiency requirements, and measurement methods for lithium-ion cells and batteries	<p>It specifies the requirements, calculation methods and measurement methods for the energy conversion efficiency of lithium-ion cells and batteries, specifically the requirements and measurement methods for the coulomb efficiency and energy efficiency at different charge and discharge rates.</p> <p>It applies to lithium-ion batteries, regardless of application field and material system. The requirements and basic test methods for energy conversion efficiency of lithium-ion batteries under different conditions in different fields are specified.</p>	N/A

Key takeaways for AEM and AEM members:

- The objective of this standard is to put more focus on the efficiency of lithium-ion battery energy conversion, and improve the level of technological development, so as to achieve the purpose of energy saving and environmental protection;
- It is also a move of China to improve its lithium-ion battery technology level so as to enhance the competitiveness of the lithium-ion battery sector.
- Based on the TC's expert, there is almost no counterpart standard in the international community or developed countries in this technical topic yet.
- Unlike most of China's self-drafting national standards (no adoption of international ones), the full text of this standard hasn't been open to the public unless a purchase is made in official channels, making it harder for relevant foreign stakeholders to acquire.



Cybersecurity and Data Protection

14. National Regulation in Place to Facilitate Cross-border Data Transfer

On March 22, the Cyberspace Administration of China issued the **Regulations on Promoting and Regulating Cross-border Transfer** (hereinafter referred to as "the Regulations"), and it will come into force on the same day of its issuing.

The legal basis of the Regulations is the three pillar laws of the sector: **Cybersecurity Law of China**, **Data Security Law of China** and **Personal Information Protection Law of China**. It is issued to optimize the current managing system on cross-border data transfer in order to promote an orderly and free flow of data according to law, stimulate the value of data elements, and expand a high level of opening up to the outside world.

The Regulations contain 14 articles, and it clarifies quite a few scenarios where stakeholders will be facilitated or even exempted from cross-border data security assessment, cross-border personal information standard contracts, and personal information protection certification. The key contents of this regulation are summarized as:

- Clarify the declaration criteria for cross-border data security assessment, stating that if it is not informed by relevant departments or regions, or are not announced as key data, the data processor does not need to submit for cross-border data security assessment as a key data.
- It stipulates the exemption scenarios for cross-border data security assessment, cross-border personal information standard contracts, and personal information protection certification:
 - the data collected and generated in international trade, cross-border transfer, academic cooperation, transnational manufacturing and marketing activities, and will transfer overseas, and they do not contain personal information or key data;
 - Personal information, collected and generated abroad, will be transferred to be processed in China are, and will then transfer abroad again. No domestic personal information or important data will be introduced in the processing process;
 - The personal information being transferred abroad is under a contract as one of the signing parties, and it is provided abroad for performing or signing the contract;
 - Collective working contracts signed legally, and the personal information are transferred abroad on HR management;
 - It is necessary to provide personal information overseas in order to protect the life, health and property safety of natural persons under emergency circumstances;
 - Data processors other than critical information infrastructure operators have provided personal information of less than 100,000 people (excluding sensitive personal information) overseas since January 1 of the year.
- Specify two scenarios for cross-border data activities that should be reported for security assessment:
 - The operator of critical information infrastructure provides personal information or important data overseas;
 - Data processors other than critical information infrastructure operators intend to provide

important data overseas, or provide personal information of more than 1 million people (excluding sensitive personal information) or more than 10,000 sensitive personal information overseas since January 1 of the natural year.

- Clarify the conditions for cross-border data activities that should be concluded by personal information exit standard contracts or through personal information protection certification: data processors other than critical information infrastructure operators have provided personal information of more than 100,000 people, less than 1 million people (excluding sensitive personal information) or less than 10,000 people to overseas since January 1 of the natural year.

In addition, the Regulations establish a negative list system for pilot free trade zones. Under the framework of the national data classification and classification protection system, the free trade pilot zone can develop its own negative list, and it should be approved by the regional cyberspace and information regulators and has been reported to the national cyberspace regulators for the record. After that, when data processors in the pilot free trade zone transfer data outside the negative list abroad can be exempted from cross-border data security assessment, cross-border personal information standard contracts, and personal information protection certification.

Based on the provisions of this regulation, AEM members with business in China probably will have less impact under China's cross-border transfer management. It also stipulates extension process for the validation of cross-border data security assessment, together with data security protection obligations and supervision and management responsibilities. What also worth noting for AEM and AEM members is that, this Regulations will prevail the requirements listed in the **Measures for the Security Assessment of Cross-border Data Transfer** (become effective on September 1, 2022) and **Measures for the Standard Contract for the Cross-border Transfer of Personal Information** (become effective on June 1, 2023)

BESTAO policy review to this Issue:

- Policy Briefing - Significant Updates on China RoHS - On-going Mandatory Standard

What can be expected in the following editions:

In the following editions, China Regulatory and Compliance Observation for AEM will still cover policies, laws, regulations, certification and standards for agriculture and forestry machinery, construction, and mining machinery of China, which will include but not limited to:

1. National policy on supporting the construction renovation for infrastructure
2. Notice by MIIT to emphasize quality in the industry and information technology sectors

About BESTAO Consulting Co. Ltd.

Founded by senior experts with solid industry experience, BESTAO Consulting provides regulatory compliance solutions across a wide range of industries to our global clients who wish to enter Chinese markets. Our areas of expertise include Government Affairs, Industry Policies, Technical Regulations and Standards, Certifications and Market Access, Tannings and Translation Services.

Accessing the Chinese market has become increasingly more important for overseas companies of all kinds and having a better understanding of the requirements to enter this large and complex market will give you the advantage over your competition. BESTAO Consulting can help you understand the Chinese regulatory environment to gain access quick and effective access to the Chinese Market.

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- The government affairs team supports our clients in identifying key stakeholders in China to build connections and improve business development.
- Our consulting team helps our clients understand China's legal framework, technical regulations, standardization system and certification schemes, including but not limited to Product Safety, CCC, China RoHS, Energy label, Medical Device Registration, Special Equipment Certification, etc. We advise our clients on market access requirements and draw comparisons between EU/US and China.
- Our intelligence collection team gathers up-to-date information on China's technical regulations and standardization in sectors like electrical and electronics products, consumer products, mechanical products, automotive, etc. We also make tailor-made observations for our clients upon their requests. We make sure that our clients stay informed on the latest developments in regulations, certification, and standardization in China.
- Our training team is dedicated to conducting workshops for overseas companies to facilitate their entry into Chinese markets.
- Our translation team provides high-quality English translations of laws, regulations, standards, and technical specifications.
- We also offer China representative, "virtual office" services and tailor-made China regulatory retainer services for overseas clients.

For more information on how BESTAO can help your company enter and grow in the Chinese market, please contact us at:

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