AEM
Association of
Equipment Manufacturers

BESTAO

China Regulatory Observation

November 2024

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Message from BESTAO

Dear Readers,

Welcome to the latest issue of our newsletter, where we bring you critical updates from China's rapidly evolving regulatory landscape in November 2024.

This edition covers a range of important developments, from the publication of China's first Energy Law, set for implementation in 2025, to new policies aimed at strengthening the supervision of certification activities. We also highlight key updates on standards for machinery, including revisions to mandatory standards for electrical equipment in machinery and the introduction of new guidelines for agricultural machinery recycling systems.

In the realm of environmental and green policies, we explore the CMIF's carbon reduction standards plan for the machinery industry and MIIT's encouragement for associations to develop product carbon footprint standards. As data security becomes an increasing priority, we feature updates on SAC's working plan for data standards, as well as joint compliance guidelines on data security issued by multiple sector associations.

Also in focus is the 2024 version of China's lithium-ion battery standard system and the draft of the mandatory RoHS standards, which is open for public comment. This issue also includes a policy review of China's new mandatory RoHS standard and its official explanation.

Enjoy the reading.

Best Regards,

AEM project team of BESTAO

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1. First Energy Law of China Published for 2025 Implementation

On November 8, 2024, the Standing Committee of the National People's Congress of China approved ***the Energy Law of the People's Republic of China*** (hereinafter referred to as "the Energy Law"). They announced its implementation on January 1, 2025.

The Energy Law is China's first fundamental and dominant law in the energy sector. Before its promulgation, China had already enacted separate laws in the energy sector, such as ***the Electricity Law***, ***the Energy Conservation Law,*** and ***the Renewable Energy Law***. However, these laws governing specific aspects of the energy sector were enacted in earlier periods, and to meet the needs of energy development in the new era, a basic law is still needed to guide China's energy development.

The energy community in China expects that the introduction of the Energy Law would provide solid support for the long-term development of China's energy sector. It will effectively promote the development of new energy, provide support for the development of energy science and technology, promote the construction of a high-standard new energy system, and provide a for the high-quality development of China's energy.

The process of passing this important law has gone through a long difficult work process from the establishment of the drafting group to the final vote, which lasted nearly 20 years with many rounds of reviews and amendments. The final published version of this law contains nine chapters and 80 articles, covering energy planning, energy development and utilization, energy market system, energy reserve and emergency response, energy scientific and technological innovation, supervision and management, legal liability, and other aspects. It elaborates on the definition and scope of energy, including coal, oil, natural gas, nuclear energy, hydro energy, wind energy, solar energy, biomass energy, geothermal energy, ocean energy, electricity, heat, hydrogen energy, etc.

For AEM and AEM members, the key contents of the Energy Law include:

- Hydrogen energy will be further emphasized: The Energy law specifies that hydrogen energy is also a type of energy, which means that hydrogen energy will enjoy the rights and responsibilities of planning, development, utilization, emergency, and storage as an energy attribute. This will help promote the research, development, and application of hydrogen energy technology and promote the rapid and high-quality development of the hydrogen energy industry.
- Promote the use of clean energy: implement renewable energy green power certificate and other systems to establish a green energy consumption promotion mechanism to encourage energy users to prioritize the use of renewable energy and other clean and low-carbon energy. AEM members with domestic production plants need to be aware of this, and relevant clean energy policies may be accompanied by preferential financial or tax policies.
- Put forward the establishment of a diversified, unified, and open energy market system with orderly competition and effective supervision; standardize the order of the energy market according to law, and equally protect the legitimate rights and interests of all types of players in the energy market.
- Stipulate that the state shall support the prioritized development and utilization of renewable energy; rational development and clean and efficient use of fossil energy; promote the safe,

reliable, and orderly replacement of fossil energy by non-fossil energy, and increase the proportion of non-fossil energy consumption.

- Propose to enhance domestic oil and gas supply security capabilities, emphasizing large-scale development of unconventional oil and gas resources.
- Advocate for a diversified energy supply structure that emphasizes conservation and efficiency.
- Promote energy science and technology innovation: increase investment, formulate policies and measures to encourage and support, and improve the national innovation platform to support major energy science and technology infrastructure and energy technology research and development, testing, certification, and other public service platform construction, improve service capacity.

For relevant foreign stakeholders and MNCs, it probably means that in the future, China will increase its efforts in the development of unconventional oil and gas such as shale oil, shale gas, and coal-bed methane, and promote technological progress and production increase. Some stipulations may indicate a direct impact on the oil industry as they show a general direction that the country will promote clean and low-carbon development by optimizing the industrial structure and consumption structure.

2. New Policy Issued to Strengthen Supervision of Certification Activities

On November 7, 2024, the State Administration for Market Regulation (SAMR) issued the *Action Plan for Building Credibility in the Quality Certification Industry (2024–2026)*. The plan aims to address serious violations such as false certifications, buying and selling of certificates, unauthorized certification activities, and the falsification or misuse of certification documents. It also seeks to establish a group of highly professional, influential, and widely recognized certification systems, promoting the acceptance of certification results in government procurement, supply chain selection, major buyer procurement, and platform-based purchasing. Additionally, it aims to develop more than 10 internationally influential brand certification bodies and over 100 nationally renowned certification institutions.

The document outlines the following requirements related to market access for machinery products:

At the Central Level:

- Accelerate the revision of the *Regulations of the People's Republic of China on Certification and Accreditation:* This regulation serves as the foundational law governing all certification activities in China.
- Strengthen supervision and inspection of CCC-designated implementation bodies: Key issues include minimizing omissions in certification procedures, inadequate testing or factory inspection conclusions to support certification decisions, lax control over critical technical information in certification evaluations, lowering certification requirements for issuing certificates, failure to convert certificates as required, non-compliance with testing standards, and insufficient standardization in routine testing processes and management.
- Enhance monitoring and traceability of the CCC certification process: A platform will be established to monitor and trace key stages and critical information in CCC certification activities. Quality and safety traceability will be conducted for CCC-certified products such as electric bicycles, wires and cables, and gas appliances.

At the Local Level:

- Strengthen supervision of CCC certification: Focus will be placed on key products such as electric vehicles, trucks, electric bicycles, gas appliances, fire protection equipment, children's toys, and child restraint systems for motor vehicles. On-site inspections of certified enterprises will be organized to ensure companies fulfil their primary responsibility for product quality and safety.
- Improve the certification recognition mechanism across government, industry, and society: The plan encourages an integrated approach to certification design, implementation, and result acceptance while expanding the scope of certification recognition. It also promotes the development of new certification systems tailored to the needs of emerging and future industries and the widespread acceptance of certification results in government procurement, administrative supervision, social governance, market purchasing, and industry management.

Currently, the CCC system covers two categories of mobile machinery: tractors and plant protection machinery. It is expected that these products will face stricter oversight of CCC certification processes and results. While the document does not explicitly mention mobile machinery, manufacturers in this sector should still review their compliance with CCC requirements to minimize regulatory risks.

Additionally, overseas mobile machinery manufacturers should pay attention to and participate in influential voluntary certification or evaluation systems in the Chinese market, such as the agricultural machinery appraisal system, to prepare for potential government or market procurement opportunities.

3. Revised Mandatory Standard on Machinery Safety Applies for Final Approval

On November 1, the China Machinery Industry Federation (CMIF) submitted the draft of the mandatory national standard *Electrical Equipment and System of Industrial Machines—Safety Requirements* to the Ministry of Industry and Information Technology (MIIT) for approval. This indicates that the standard has entered the final stage of the drafting process and is expected to be approved and released soon.

The standard specifies technical requirements and guidelines for protective measures, safety warnings, and risk mitigation procedures for electrical equipment and systems of industrial machinery. It aims to ensure the safety and protection of personnel and equipment throughout the design, development, manufacturing, installation, operation, and maintenance phases. By reducing accident risks, the standard ensures the efficient and safe operation of mechanical equipment.

This standard consolidates and revises four existing mandatory standards for electrical systems in industrial machinery in China, as follows.

- *GB 28526—2012 Electrical safety of machinery - Functional safety of safety-related electrical, electronic, and programmable electronic control systems* (identical adoption of IEC62061:2005)
- *GB 5226.3—2005 Safety of machinery-Electrical equipment of machines-Part 11: Requirements for HV equipment for voltages above 1000V a.c. or 1500V d.c. and not exceeding 36kV* (Identical adoption of IEC60204-11:2000)
- *GB 19436.3—2008 Electrical safety of machinery - Electro-sensitive protective equipment - Part 3: Particular requirements for Active Opto-electronic Protective Devices responsive to Diffuse Reflection (AOPDDR)* (Identical adoption of IEC61496-3:2001), and

- *GB 5226.6—2014 Electrical safety of machinery—Electrical equipment of machines—Part 6: Requirements for construction machinery* (no adoption of international standards)

It also introduces technical requirements for power supply connection, working environment, equipment protection, functional safety, electromagnetic compatibility, and safety guards. Additionally, it provides guidance on installation, operation, and maintenance.

This standard will serve as the sole mandatory standard in electrical equipment and systems for industrial machinery, providing technical grounds for market access, product certification, and quality supervision of electromechanical products.

The standard does not declare the adoption of any international standards during its revision process, which means the final text may contain discrepancies from the standards that AEM members follow. Additionally, it references more than ten recommended standards, such as *GB/T 5226.32 Electrical Safety of Machinery—Electrical Equipment of Machines—Part 32: Requirements for Hoisting Machines*. This could render certain clauses within these referenced standards mandatory.

Before the standard is officially approved and published, MIIT or SAC is expected to conduct a final round of public consultation. We will keep you updated on further developments.

Agricultural and Forestry Machinery

4. Multiple Forestry Machinery Standards May Repeal

On November 20, 2024, the National Forestry and Grassland Administration issued a public consultation on the suggested repeal of 74 national and sector standards. Below is a list of forestry machinery standards proposed for repeal, along with the reasons for their discontinuation:

No.	Standard Proposed for Repeal	Reason for Repeal
1	*GB/T 5394-1995 Portable chain saws--Methods of a production test in the forest*	This standard is rarely used, and the testing methods can now be simulated in laboratory conditions.
2	*LY/T 1570-1999 Powered lawn and garden equipment – symbols for operator controls and safety signs*	Converted to national standards: *GB/T 4269.3-2000 Tractors, machinery for agriculture and forestry, powered lawn and garden equipment--Symbols for operator controls and other displays--Part 3: Symbols for powered lawn and garden equipment* (ISO 3767-3:1995, IDT) and *GB 10396-2006 Tractors, machinery for agriculture and forestry, powered lawn and garden equipment - Safety signs and hazard pictorials - General principles* (ISO 11684:1995, MOD)
3	*LY/T 2569-2015 Garden Machinery Safety requirements and tests for handheld hedge trimmers powered by gasoline engines*	Converted to national standards: *GB/T 42607-2023 Powered hand-held hedge trimmers—Safety* (ISO 10517:2019, IDT)
4	*LY/T 2725-2016 Forestry machinery - Portable chain-saws - Kickback test*	Converted to national standards: *GB/T 42608-2023Portable chain-saws—Kickback test* (ISO 9518:2018, IDT)
5	*LY/T 1602-2016 Spindle-less veneer lathe*	Converted to national standards: *GB/T 14713-2023General technical conditions for veneer lathe*
6	*LY/T 3082-2018 Single spindle and spindles combined peeling lathe*	Converted to national standards: *GB/T 14713-2023General technical conditions for veneer lathe*

Manufacturers of related products should pay attention to the potential changes in technical requirements resulting from the standard conversion, especially for standards that have not been adopted or modified from ISO standards. Measures should be taken to comply with the requirements of the Chinese market.

5. New Standard Guides the Development of Recycling Systems for Scraped Agricultural Machinery

In recent years, the use of agricultural machinery in China has steadily increased. While this has improved agricultural mechanization, it has also resulted in a large volume of scrapped agricultural machinery. The recent subsidy policies for scrapping and upgrading agricultural machinery have further exacerbated this situation.

However, the current recycling process for scrapped agricultural machinery in China lacks systematic management and regulation. The challenges are as follows:

- The absence of professional recycling organizations and personnel, coupled with limited recycling channels, restricts farmers' ability to sell their scrapped machinery, resulting in high recycling costs.
- The construction of dismantling centers is not standardized and lacks proper guidance.
- There is a lack of related information management platforms, which hinders the supervision, traceability, and control of the flow of scrapped agricultural machinery.

To address these issues, the National Agricultural Machinery Standardization Technical Committee (SAC/TC201) has developed the national standard *Construction specification of waste agricultural machinery recycling system*, which is currently open for public consultation until December 8.

This standard stipulates that a recycling system for scrapped agricultural machinery should include recycling outlets, dismantling centers, and an information management platform. It provides detailed requirements for their configuration, safety, and environmental protection standards. The standard applies to the recycling systems for key agricultural machinery, including tractors, combine harvesters, and seeders.

China is gradually advancing toward lifecycle environmental impact management of products. The disposal, recycling, and reuse of products at the end of their life are expected to come under regulatory purview, where this standard will play a significant role. Although there is currently no requirement in the agricultural machinery sector obligating producers to recycle and dispose of scrapped products, overseas manufacturers are advised to keep abreast of China's policies and standards.

6. Mandatory Standards for Tractor and Harvester Noise Open for Public Consultation

On November 19, 2024, the Ministry of Industry and Information Technology (MIIT) released drafts of two mandatory national standards, *Tractor—Limits of Emitted Noise (Draft for Comments)* and *Harvesting Machinery—Noise Limits (Draft for Comments)*, for public consultation. The deadline for submitting feedback is January 18, 2025.

a) *Tractor—Limits of Emitted Noise (Draft for Comments)*

- This standard is a revision of the 2008 version, adding requirements for environmental noise and noise at the driver's position for tracked tractors.
- The scope of the new standard has been expanded to include pontoon tractors.
- For tracked tractors, the noise assessment method has been updated from static

environmental noise to dynamic environmental noise.

b) *Harvesting Machinery—Noise Limits (Draft for Comments)*

- This standard is a revision of the 2005 version, focusing on stricter noise requirements at the operator's position.
- The new standard covers various machinery types, including rice and wheat combine harvesters (full-feed/half-feed), corn harvesters, soybean combine harvesters, silage forage harvesters, cotton harvesters, and sugarcane harvesters.
- Noise limits for harvesting machinery are categorized based on the power of the associated diesel engine: P< 18 kW, 18 kW≤P <37 kW, 37 kW≤P <75 kW, 75 kW≤P< 130 kW, and P≥ 130 kW

7. A New Batch of Agricultural Machinery Promotion Appraisal Outlines to Be Released

From November 15 to 22, 2024, the Ministry of Agriculture and Rural Affairs solicited public comments on two newly developed agricultural machinery promotion appraisal outlines, 11 revised outlines, and three amendment sheets. If no major objections are raised, this batch of outlines will be released soon.

- 2 newly developed appraisal outlines focus on rubber tapping machines and liquid feed systems.
- 11 revised appraisal outlines cover: seedling tray sowing equipment, sugarcane planters, forage bale wrapping machines, vegetable washing machines, film laying machines, tea tree pruning machines, tea picking machines, tea rolling machines, tea conveyors, tea flattening machines, integrated water and fertilizer equipment.
- 3 amendment sheets apply to: grain dryers, tuber crop harvesters, and tracked orchard transporters.

If you require the text of these outlines, please don’t hesitate to get in touch.

8. Two Agricultural Machinery Included in National Quality Supervision Spot Checks

From November 8 to 20, 2024, the State Administration for Market Regulation (SAMR) sought public comments on the *Implementation Guidelines for National Supervision Spot Checks on the Quality of Rotary Tillers (2024 Edition)* and the *Implementation Guidelines for National Supervision Spot Checks on the Quality of Walk-Behind (Mini) Cultivators (2024 Edition).*

a. *Implementation Guidelines for National Supervision Spot Checks on the Quality of Rotary Tillers (2024 Edition)*

- Products covered:
  - Tractor-mounted rotary tillers (including combined rotary tilling machines)
  - Walk-behind tractor-mounted rotary tillers
  - Self-propelled tracked rotary tillers.

- Standards used for spot checks:
  - GB/T 5668-2017 Rotary tiller
  - GB 10395.5-2013 Agricultural machinery — Safety — Part 5: Power-driven soil-working machines
  - GB 10396-2006 Tractors, machinery for agriculture and forestry, powered lawn and garden equipment - Safety signs and hazard pictorials - General principles
  - GB/T 23821-2009 Safety of machinery—Safety distances to prevent hazard zones being reached by upper and lower limbs
  - JB/T 8401.1-2017 Rototill combine equipment — Part 1: Rototill seed-cum-fertilizer drill
  - JB/T 8401.2-2017 Rototill combine equipment — Part 2: Rototill scarifying-paring-ridging machine
  - JB/T 9798.1-2011 Rotary tillers fitted on walking tractors — Part 1: Technical regulations
  - JB/T 13081-2017 Self-propelled tracklaying rotary tiller.
- Sampling method: Random sampling from products pending sale by manufacturers or distributors. Two samples per batch will be selected.

b. *Implementation Guidelines for National Supervision Spot Checks on the Quality of Walk-Behind (Mini) Cultivators (2024 Edition)*

- Standards used for spot checks:
  - GB 10395.10-2006 Tractors and machinery for agriculture and forestry—Technical means for ensuring safety—Part 10: Walk-behind powered rotary tillers
  - GB 10396-2006 Tractors, machinery for agriculture and forestry, powered lawn and garden equipment - Safety signs and hazard pictorials - General principles
  - JB/T 10266-2013 handheld tillers.
- Sampling method: Random sampling from products pending sale by manufacturers or distributors. Two samples per batch will be selected.

Manufacturers of the related products should ensure compliance with the technical requirements of the listed standards. Non-compliance in spot checks could result in serious consequences, such as orders to cease production and sales, public announcements, or even the revocation of business licenses.

Construction and Earth-moving Machinery

9. SAC/TC227 Solicits Comments on General Standards for Crane Remote Control Systems

From November 1 to December 30, 2024, the National Technical Committee on Standardization for Lifting Machinery (SAC/TC227) is soliciting public comments on the draft national standard *Lifting Appliances—Remote Control Systems—General Technical Specification*.

The standard specifies the architecture, configuration, and technical requirements for remote control systems of lifting appliances, along with corresponding testing methods and inspection rules. It applies to the design, manufacturing, retrofitting, and acceptance of remote control systems for lifting appliances as defined in *GB/T 20776 Classification for Lifting Appliances.*

SAC/TC227 states that the standard will address gaps in both domestic and international standards, providing a reference for the design, manufacturing, use, inspection, and regulation of crane remote control systems. It is also expected to reduce operational risks, minimize safety incidents, and lower safety and management costs for enterprises.

Remote control systems are a critical component of intelligent lifting machinery, playing a significant role in enhancing the safety, reliability, and cost-effectiveness of such equipment. Overseas manufacturers of related products are advised to familiarize themselves with the standard to mitigate potential compliance risks and procurement barriers in the future.

10. China Issues Standard Providing Criteria for Determining Major Accident Hazards in Special Equipment

On November 28, 2024, the Standardization Administration of China (SAC) issued *GB 45067-2024: Criteria for Major Accident Potential of Special Equipment Judgment.* This standard aims to provide a basis for determining major accident hazards in special equipment, supporting the implementation of the *Special Equipment Safety Law*. The law specifies the responsibilities of equipment users and regulatory authorities in handling and supervising products with significant accident hazards.

Relevant Provisions for Mobile Machinery:

a) Cranes: The following scenarios in cranes will be classified as major accident hazards if they remain in use:

- Not subjected to the initial inspection.
- Inspection results from periodic or initial inspections are deemed "non-compliant."
- Missing or malfunctioning emergency stop switches.
- Missing or malfunctioning load limiters, lifting moment limiters, or anti-fall safety devices.
- Missing or malfunctioning wind-resistance and anti-slip devices in outdoor rail-mounted

cranes.

b) Motor Vehicles for On-Site Use (Factory or Yard): The following conditions will classify such vehicles as major accident hazards if they remain in use:

- Inspection results from periodic inspections are deemed "non-compliant."
- Missing or malfunctioning emergency power cut-off devices for electric vehicles.
- Missing or malfunctioning braking systems (including driving and parking brakes).

Implications:

The absence or malfunction of the critical components mentioned above will result in the entire product being classified as having a major accident hazard, posing significant compliance risks for equipment users. Overseas manufacturers of cranes and motor vehicles for on-site use should familiarize themselves with these regulatory requirements and take proactive measures to minimize the risk of their products being classified as having major accident hazards.

11. Summary of China's National Standards for New Energy Earthmoving Machinery

On November 28, 2024, the Standardization Administration of China (SAC) released six new standards for electric earthmoving machinery. With this release, 13 national standards for electric earthmoving machinery have been issued and implemented in China. Details are as follows:

No.	Code	Name	New Draft/ Revision	Date of Issuance	Date of Implementation
1	GB/T 45046 -2024	Earth-moving machinery—Battery electric hydraulic excavators—Technical requirements	New Draft	Nov 28, 2024	Jun 1, 2025
2	GB/T 45047 -2024	Earth-moving machinery—Battery electric wheel loaders—Technical requirements	New Draft	Nov 28, 2024	Jun 1, 2025
3	GB/T 45048 -2024	Earth-moving machinery—Battery electric non-road wide-body dumpers—Technical requirements	New Draft	Nov 28, 2024	Jun 1, 2025
4	GB/T 45051-2024	Earth-moving machinery—Battery electric non-road mining dumpers—Technical requirements	New Draft	Nov 28, 2024	Jun 1, 2025
5	GB/T 45094-2024	Earth-moving machinery—Hybrid electric wheel loaders	New Draft	Nov 28, 2024	Jun 1, 2025
6	GB/T 45095-2024	Earth-moving machinery—Hybrid electric hydraulic excavators	New Draft	Nov 28, 2024	Jun 1, 2025
7	GB/T 44254-2024	Electric earth-moving machinery—Terminology	New Draft	Jul 24, 2024	Jul 24, 2024

No.	Code	Name	New Draft/ Revision	Date of Issuance	Date of Implementation
8	GB/T 44255-2024	Earth-moving machinery—Energy consumption for battery electric hydraulic excavators—Test methods	New Draft	Jul 24, 2024	Jul 24, 2024
9	GB/T 44256-2024	Earth-moving machinery—Energy consumption for battery electric wheel loader—Test methods	New Draft	Jul 24, 2024	Jul 24, 2024
10	GB/T 44257.1-2024	Traction battery of electric earth-moving machinery—Part 1: Safety requirements	New Draft	Jul 24, 2024	Jul 24, 2024
11	GB/T 44257.2-2024	Traction battery of electric earth-moving machinery—Part 2: Electrical performance requirements	New Draft	Jul 24, 2024	Jul 24, 2024
12	GB/T 44258-2024	Earth-moving machinery—Battery electric wheel loaders for plateau tunnels	New Draft	Jul 24, 2024	Jul 24, 2024
13	GB/T 44259-2024	Earth-moving machinery—Battery electric hydraulic excavator for plateau tunnels	New Draft	Jul 24, 2024	Jul 24, 2024

Green and Environmental Protection

12. Carbon Reduction Standards in Planning for the Machinery Industry

On November 6, 2024, the China Machinery Industry Federation (CMIF) released the *Guidelines for the Construction of the Machinery Industry Carbon Peak and Carbon Neutrality Standard System*. This document outlines a framework for the carbon peak and carbon neutrality standard system in the machinery industry, identifies key areas and standards, and aims to provide a systematic foundation for promoting carbon neutrality standardization in the industry.

Objectives:

- By 2025: A preliminary carbon peak and carbon neutrality standard system will be established for the machinery industry. Over 50 urgently needed standards will be developed or revised, focusing on greenhouse gas accounting, carbon reduction technologies, and equipment. These standards aim to provide technical support for carbon assessment and emission reduction in the machinery industry.
- By 2030: A relatively complete standard system will be formed, covering carbon reduction technologies and equipment, carbon removal technologies and equipment, and achieving full coverage of key products and fields. Energy consumption and efficiency standards for key products will meet advanced international benchmarks.

The document identifies 68 standards across four areas: general and foundational standards, carbon reduction technologies and equipment, carbon removal technologies and equipment, and monitoring equipment and systems.

Of these standards, 18 standards have already been published, 37 standards are under development, and 13 standards are planned for future development.

Key Standards that may have implications for overseas machinery manufacturers:

- Among the 37 standards in progress is the *Specification for Carbon Footprint Evaluation of Machinery Products*.
- All 13 planned standards focus on carbon footprint quantification methods and requirements, covering products such as pumps, cranes, earthmoving machinery, and industrial robots.

As China ramps up efforts to promote product carbon footprint evaluations, these standards are likely to have a significant impact on mobile machinery products. High-carbon-footprint products may face disadvantages in government and commercial procurement. Overseas manufacturers of mobile machinery are advised to closely monitor the ongoing and planned standards.

In addition, the 37 standards under development also include several new energy earthmoving machinery, such as hybrid wheel loaders, hydraulic excavators, pure electric hydraulic excavators, dump trucks, and loaders. Should you need more information about these standards and their development, please don't hesitate to contact us.

13. Associations Encouraged to Develop Product Carbon Footprint Standards

On November 6, 2024, the Ministry of Industry and Information Technology (MIIT) released the *Guidelines for Developing Carbon Footprint Accounting Standards for Key Industrial Products.* The document aims to accelerate the establishment of carbon footprint accounting rules for industrial products through the development of association standards. This initiative supports the government's policy goals to "enhance carbon footprint management of key industrial products, promote green and low-carbon transformation in relevant industries, and achieve carbon peaking and neutrality."

The document requires that by 2027, China should finish 200 carbon footprint accounting standards for key industrial products. Given the lengthy development cycles for national and sector standards, the guidelines encourage industrial associations to first create association standards that meet certain requirements. Standards suitable for large-scale implementation can later be converted into national or sector standards.

The document states that the association standards developed must

- Align with the national standard *GB/T 24067 Greenhouse gases—Carbon footprint of products—Requirements and guidelines for quantification* (which was modified from ISO 14067:2018)
- Harmonize with internationally recognized methods, standards, and guidelines applicable to specific product categories.
- Their development should adhere to principles of openness, transparency, and fairness, involving diverse stakeholders such as producers, operators, users, consumers, academic and research institutions, testing and certification bodies, and government departments. The public consultation period for draft standards should generally be no less than 30 days.

The release of this document highlights China's efforts to establish carbon footprint accounting rules across industrial sectors, providing a foundation for product decarbonization and industry-wide emission reduction targets. It signals that product carbon footprint accounting could significantly influence market access in the future.

While the guidelines emphasize alignment with internationally recognized standards, they do not specify which standards or the degree of alignment required. This could lead to discrepancies between carbon footprint accounting results for overseas products evaluated in their home countries versus China.

Therefore, overseas manufacturers are advised to monitor the activities of influential association standard organizations, such as the China Machinery Industry Federation (CMIF) and the China Construction Machinery Association (CCMA), and proactively track their standardization efforts to understand future carbon footprint accounting rules and minimize ensued compliance risks.

Cybersecurity and Data Security

14. SAC Data TC Issued Working Plan with Standard List

On October 30, the SAC/TC609 (Data) published the standard list as its working plan after establishment. The purpose is to standardize the construction of data infrastructure, promote the high-quality supply of data resources, promote the efficient and orderly circulation of data, lead the iterative innovation of data technology, and form a new pattern of multi-data fusion and application.

It contains 37 items, covering critical fields such as data governance, data circulation and utilization, digital transformation, data technology, data infrastructure, etc.

Standard details are listed as follows, the ones that may relate to AEM and AEM member business and products are marked in **BOLD**:

No.	Standards to be Drafted or Revised	Type	Relation with International Standards
1	***Data—Terms***	Revision	N/A
2	*High-Quality Data Set - Format specification*	Newly-drafted	N/A
3	*High-quality Data Set - Types and quality requirements*	Newly-drafted	N/A
4	*Anonymization of Data Circulation - Evaluation method*	Newly-drafted	N/A
5	*Anonymization of Data Circulation - Guidelines*	Newly-drafted	N/A
6	***Data Infrastructure - Reference framework***	Newly-drafted	N/A
7	***Data Infrastructure - General requirements***	Newly-drafted	N/A
8	*Transmission Service and Technical Capability Requirements for Hub Node Public Transmission Channel Network*	Newly-drafted	N/A
9	*Integrated Monitoring and Dispatching of Computing Power Network*	Newly-drafted	N/A
10	*Evaluation Model for the Effective Utilization of Urban Data in the Global Digital Transformation of Cities*	Newly-drafted	N/A
11	*Information technology– Big Data – Big Data service capability evaluation Part 2: circulation transactions*	Newly-drafted	N/A
12	*Information technology – Big Data – Big Data service capability evaluation Part 3: Third-party service*	Newly-drafted	N/A

No.	Standards to be Drafted or Revised	Type	Relation with International Standards
13	*Information technology – Big Data – Big Data service capability evaluation Part 4: Consulting service*	Newly-drafted	N/A
14	*Information technology – Big Data – Big Data service capability evaluation Part 5: Innovation application*	Newly-drafted	N/A
15	***Information technology – Big Data – Big Data service capability evaluation Part 6: Product platform***	Newly-drafted	N/A
16	*Information technology – Big Data – Big Data service capability evaluation Part 7: Resource integration*	Newly-drafted	N/A
17	***Information technology – Big Data – Big Data service capability evaluation Part 8: Process analysis***	Newly-drafted	N/A
18	*Information technology – Big Data – Big Data service capability evaluation Part 9: Security technologies*	Newly-drafted	N/A
19	*Public data — authorization and operation service — Part 1: Reference framework*	Newly-drafted	N/A
20	*Public data — authorization and operation service — Part 2: Management rules*	Newly-drafted	N/A
21	*Public data — authorization and operation service — Part 3: Service catalogue and specification*	Newly-drafted	N/A
22	*Public data — authorization and operation service — Part 4: Performance evaluation requirements* *(may modify name as "Public data — authorization and operation service — Part 4: Monitor and evaluation requirements")*	Newly-drafted	N/A
23	*Public Data Resource Registration - Implementation guideline*	Newly-drafted	N/A
24	*Capability Requirements for Data-driven Enterprises* *(may modify name as "Criteria for identification and evaluation for data enterprises")*	Newly-drafted	N/A
25	*General Technical Requirements for Data Registration Platform*	Newly-drafted	N/A
26	***General Requirements for Data Quality Evaluation Systems***	Newly-drafted	N/A
27	*Data space - Reference architecture*	Newly-drafted	N/A
28	*Data space - Basic competence requirements*	Newly-drafted	N/A

No.	Standards to be Drafted or Revised	Type	Relation with International Standards
29	*Data space - Application maturity evaluation*	Newly-drafted	N/A
30	*Urban Full-realm Digital Transformation - Terminology*	Revision	N/A
31	*Urban Full-realm Digital Transformation - Technical reference model*	Revision	N/A
32	*Urban Full-realm Digital Transformation - Guide on Top-Level Design*	Revision	N/A
33	*Artificial intelligence - Data quality for analytics and machine learning (ML) - Part 1: Overview, terminology, and examples*	Newly-drafted	ISO/IEC 5259-1
34	*Artificial intelligence - Data quality for analytics and machine learning (ML) - Part 2: Data quality measures*	Newly-drafted	ISO/IEC 5259-2
35	*Artificial intelligence - Data quality for analytics and machine learning (ML) - Part 3: Data quality management requirements and guidelines*	Newly-drafted	ISO/IEC 5259-3
36	*Artificial intelligence - Data quality for analytics and machine learning (ML) - Part 4: Data quality process framework*	Newly-drafted	ISO/IEC 5259-4
37	*Artificial intelligence Data quality for analytics and machine learning (ML) Part 5: Data quality governance framework*	Newly-drafted	ISO/IEC 5259-5

For prior article provides further information on SAC/TC609, please refer to article #15 of 20241115 BESTAO - AEM China Compliance - October 2024.

15. Multiple Sector Associations Jointly Issue Compliance Guideline on Data Security

On November 19, 2024, 17 Chinese sector associations jointly issued the ***Data Security Compliance Guidelines for the Industrial and Information Technology Sectors*** (hereinafter referred to as "the Compliance Guideline"). The publication of the Compliance Guidance is one of the key events at the Light of Internet Expo, a significant section of the World Internet Conference 2024 Wuzhen Summit.

China's data security governance has been optimized on a more regular basis due to the fast-growing application scope and amount of data in all fields. Multiple laws and regulations have been issued since 2021, including but not limited to the ***Data Security Law***, ***Cybersecurity Law***, ***Personal Information Protection Law***, and the ***Measures for the Security Assessment of Outbound Data Transfer,*** etc. In the meantime, data security in the industry and information technology sectors is one of the most focused areas for data governance as it is closely related to important facilities and national security. Several regulations have also been issued in the past two years, such as the ***Administrative***

Measures for Data Security in the Field of Industry and Information Technology (for Trial Implementation) and the ***Detailed Rules for the Implementation of Data Security Risk Assessments in the Field of Industry and Information Technology*** (for Trial Implementation), in the purpose of elaborate implementation path and main contents of legal and compliant data processing activities carried out by data processors in the field of industry and information technology.

The issuing of the Compliance Guidelines intends to focus on issues encountered by data processors in the process of fulfilling data security protection obligations. It clarifies the basis for data security compliance and provides practical guidelines that can help data processors carry out comprehensive, accurate and standardized data security compliance management, and improve data security protection capabilities. The legal basis of this document includes but is not limited to the aforementioned legal documents.

Regarding the application scope, the Compliance Guideline specifies that data processors in the field of industry and information technology can refer to it to carry out security protection throughout the lifecycle of data processing activities. Here, the "data processors in the field of industry and information technology" refers to various entities in the field of industry and information technology, such as industrial enterprises, software and information technology service enterprises, telecommunications, and Internet enterprises, as well as radio frequency and station users, which independently decide the purposes and methods of processing in data processing activities.

The Compliance Guideline consists of nine chapters, covering the application scope, terms and definitions, and a comprehensive list of legal documents upon which it is based. It also provides detailed guidance on how to categorize data, establish and implement a security management system, ensure full lifecycle protection, monitor and report risks, handle security incidents, conduct risk evaluations, manage cross-border issues, and regulate data trade.

For foreign stakeholders, the full list of associations that jointly issued the Compliance Guideline can serve as a useful reference to understand which sectors this document may be relevant to:

- China Iron and Steel Association
- China Nonferrous Metals Industry Association
- China Petroleum and Chemical Industry Federation
- China Building Materials Federation
- China Machinery Industry Federation
- China Association of Automobile Manufacturers
- China National Textile and Apparel Council
- China National Light Industry Federation
- China Electronic Information Industry Federation
- China Computer Industry Association
- China Association of Communications Enterprises
- Internet Society of China
- China Communication Standards Association
- China International Cooperation Association of SMEs
- China Institute of Communications
- Application Industry Promotion Alliance for Commercial Password of Ministry of Industry and Information Technology
- National Information Security Industry Alliance

16. National Data Bureau Releases Draft Guidelines for Building National Data Infrastructure

On November 22, the National Data Administration (NDB) unveiled the draft *Guidelines for Building National Data Infrastructure* (hereinafter referred to as the Guidelines) to solicit public feedback. The opinions submission channels closed on December 1, 2024. This initiative aims to clarify the concept, development vision, and construction goals of data infrastructure, fostering societal consensus and charting a clear path for its advancement.

Unlike traditional digital infrastructure, which focuses on hardware and software technologie**s,** data infrastructure is defined from the perspective of technological and economic functions. Its primary goal is to unlock the value of data as a key resource. It represents a new type of infrastructure designed to integrate data aggregation, processing, circulation, application, operation, and security services into a unified system. This approach incorporates hardware, software, algorithms, standards, and institutional frameworks into a cohesive ecosystem.

Despite its promise, China's data infrastructure is at an early stage of development and faces significant challenges:

- Insufficient data circulation and utilization:
- Data security and privacy protection issues
- Underdeveloped application Scenarios:
- Unclear development direction and lack of demonstration cases

To address those issues, the draft guidelines outline ambitious goals to build data infrastructure:

a) Enhancing Data Circulation and Utilization: Establish facilities that support a unified national data market, ensuring secure and seamless data flow. China is expecting it to form a collaborative, efficient, and trustworthy public service system for data circulation and utilization at scale.
b) Building a High-Quality Computing Power Foundation: Develop a diverse, efficient, intelligent, on-demand, and eco-friendly computing power supply system to meet various data processing needs.
c) Strengthening Network Support: Construct a high-speed, reliable, and dynamically adjustable data transmission network that allows flexible access and ubiquitous connectivity.
d) Improving Security Measures: Establish a comprehensive, dynamic, and inherently secure protection framework to safeguard data assets.
e) Expanding Application Scenarios: Promote digital transformation and upgrading of traditional industries while empowering emerging sectors like artificial intelligence with data-driven solutions.

The release of the draft guidelines reflects China's intention to building a robust, forward-looking data infrastructure that aligns with national strategic goals. By addressing foundational challenges and setting clear objectives, the guidelines seek to unleash the transformative potential of data across industries, enhance digital sovereignty, and pave the way for China's leadership in the global digital economy.

New Energy

17. Lithium-ion Battery Standard System Announced 2024 Version

On November 15, 2024, the Ministry of Industry and Information Technology (MIIT) of China, jointly with the Ministry of Ecology and Environment (MEE), the Ministry of Emergency Management (MEM), and the State Administration for Market Regulation (SAMR), publicized the full text of ***the Guidelines on the Comprehensive Construction of the Standards System for Lithium-ion Battery Industry*** (hereinafter referred to as "the Guideline").

The purpose of drafting the Guideline is to support the standardization initiative. The draft outlines its objectives, the framework of the standard system, and measures for organizational support.

A draft of the Guideline was issued by the MIIT in December of 2023 to call for public comments. Compared with the officially issued Guideline, the contents are further streamlined, while the objectives are more specific. The main contents of the finalized Guideline include:

Objectives: By 2026, more than 100 new national standards and sector standards will be formulated, forming an optimized standard system to lead the high-quality development of the lithium sector, and the role of the standard to support the industry in consolidating its dominant position will continue to be strengthened. More than 1,000 enterprises shall carry out standard promotion and implementation, and the innovation and development of standard service enterprises have become more prominent. Participate in the development of more than 10 global standards, and the global influence of China's lithium battery standards shall be further enhanced.

Principles: keep optimizing the interaction between scientific and technological innovation, and standardization; insist on the cooperation of cross-sector and cross-field TCs, reinforce the coordination of standardization work of full industrial chains; accelerate the national standards on security and safety to ensure a safe industrial development; stick to international standardization communication and cooperations, and fully participate in the international standardization work.

Standard System: the standard system primarily encompasses six categories：

- Generics and basics: terminology and naming, transportation, installation and maintenance
- Materials and components: cathode materials, anode materials, electrolyte

  separator, critical components
- Manufacturing and testing: manufacturing process, and equipment,

  safe manufacturing, intelligent manufacturing, testing methods and equipment
- Safety and performance: for the four types of products, namely consuming lithium batteries, small traction batteries, large traction batteries, energy storage batteries: powering consumer electronics, for powering electronic devices
- Recycling and reuse: cascade utilization, recycling, others
- Green and low-carbon: the limit on energy consumption, carbon footprint, and carbon emission, management and assessment

Organizational Support: optimize organizational construction in all links of the lithium battery standardization, including but not limited to research, manufacturing, and academic stakeholders; enhance the construction and cultivation of workforce and talents in the field; strengthen the promotion and training of key standards of the field, and guide the enterprises to conform with standard requirements.

China RoHS

18. Draft for Mandatory RoHS Standards Calling for Public Comments

On November 19, 2024, the Science and Technology Department of the Ministry of Industry and Information Technology issued the drafts of eight national mandatory standards to call for public comments until January 18 of 2025. The standard that attracted the most eyeballs is the one for China RoHS, namely the ***Requirements for restricted use of hazardous substances in electrical and electronic products*** (hereinafter referred to as "the RoHS standard"), which will replace the currently effective GB/T 26572-2011 and all its amendment list(s).

Compared with the currently effective GB/T 26572-2011 and all its amendment list(s), the **main changes** of the RoHS standard include:

- Added three-term definition (see 3.6, 3.7 and 3.8);
- Add the classification management requirements (see Chapter 4);
- Add labeling requirements (see Chapter 6);
- Added requirements related to the declaration of conformity (see Chapter 7);
- Add relevant requirements of the inspection rules (see section 8);

Due to its mandatory nature, several rounds of heated discussions have taken place in the process of drafting this RoHS standard. If compared with the previous internal draft, this Draft for comment does include some big changes, mainly include:

- Remove the expression stating that the RoHS standard will also replace SJ/T 11364, although it still contains a whole chapter of labelling requirements. It remains unclear so far.
- The requirements for enterprises establishing digital management platforms are canceled. It has been one of the most controversial sections that was discussed between the drafting members.
- The whole normative annex that explains the format and requirements for the testing report have been removed.

Meanwhile, five standards that may relate to RoHS testing have been announced by the SAC in November of 2024 for implementation. All five standards are identical adoptions of the international norms outlined in the Energy Law, ensuring alignment with global best practices in energy development.

No.	Standard No.	Standard Name	Standard to be Replaced	Implementation Date	Relation with International Standard
1	GB/T 39560.10-2024	*Determination of certain substances in electrical and electronic products—Part 10: Polycyclic aromatic hydrocarbons (PAHs) in polymers and electronics by gas chromatography-mass spectrometry (GC-MS)*	Newly-drafted	Dec 1, 2024	IEC 62321-10:2020, IDT

No.	Standard No.	Standard Name	Standard to be Replaced	Implementation Date	Relation with International Standard
2	GB/T 39560.2-2024	*Determination of certain substances in electrical and electronic products—Part 2：Disassembly, disjointed and mechanical sample preparation*	GB/T 39560.2-2020	Dec 1, 2024	IEC 62321-2:2021, IDT
3	GB/T 39560.302-2024	*Determination of certain substances in electrical and electronic products—Part 3-2: Screening fluorine, chlorine, and bromine in polymer and electronics by combustion-ion chromatography (C-IC)*	Newly-drafted	Dec 1, 2024	IEC 62321-3-2:2020, IDT
4	GB/T 39560.303-2024	*Determination of certain substances in electrical and electronic products—Part 3-3：Screening polybrominated biphenyls, polybrominated diphenyl ethers, and phthalates in polymers by gas chromatography-mass spectrometry using a pyrolizer/thermal desorption accessory (Py/TD-GC-MS)*	Newly-drafted	Dec 1, 2024	IEC 62321-3-3:2021, IDT
5	GB/T 39560.9-2024	*Determination of certain substances in electrical and electronic products—Part 9: Hexabromocyclododecane in polymers by gas chromatography-mass spectrometry (GC-MS)*	Newly-drafted	Dec 1, 2024	IEC 62321-9:2021, IDT

In addition, it is worth noting that the working timeline of the RoHS standard seems to be delayed because according to the working schedule set up by SAC/TC297/SC3 (Test Methods of Hazardous Substances), the draft for the comment stage should have been completed in the third quarter of 2024. This delay may lead to a further delay in the final approval application, which was originally planned to be finished before the end of March in 2025. It is also worth noting that the RoHS standard is suggested by the TC to be implemented in the 13th month after its approval.

BESTAO policy review to this Issue:

- BESTAO Translation - the New Mandatory Standard for China RoHS: *Restricted Use of Hazardous Substances in Electrical and Electronic Products (draft for comment)*
- BESTAO Translation – the Official Explanation of the New Mandatory Standard for China RoHS: *Restricted Use of Hazardous Substances in Electrical and Electronic Products (draft for comment)*

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. Landscape of Data Governance Regime in China
2. Updates on Chinese standards for non-road mobile machinery

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.

What We Offer:

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- 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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