

China Regulatory and Compliance Observation

December edition 2023



Table of Contents

| | |
|---|-----------|
| Message from BESTAO | 2 |
| Horizontal | 3 |
| 1. New Policy to Facilitate Upgrading of Traditional Manufacturing Industry..... | 3 |
| 2. SAMR Strengthens Management on Sector Standards | 4 |
| Agricultural and Forestry Machinery..... | 5 |
| 3. December Agricultural Machinery Promotion Update..... | 5 |
| 4. CAAMM and CSAM Develop Standards for Agricultural Machinery Emission Measurement Methods | 5 |
| 5. MIIT Releases Energy Efficiency Standards for Agricultural Machinery..... | 7 |
| Construction and Mining Machinery | 10 |
| 6. Typical Robot Application Scenarios Being Collected in Mining Sectors | 10 |
| 7. AI Unmanned Driving Standards in Plan for Open Pit Mines | 10 |
| Emission | 13 |
| 8. Air Quality Improvement Requirement Updated on a National Level | 13 |
| 9. MEE Issued Two Mandatory Emission Supervision Standards | 14 |
| CCC..... | 17 |
| 10. Starting from January 1, 2024, CCC Fully Implements Electronic Certificates | 17 |
| ESG | 18 |
| 11. CCER Implementation Rules in Place on Voluntary GHG Reduction Project | 18 |
| New Energy..... | 19 |
| 12. MIIT Plans New Regulations on EV Power Battery Management | 19 |
| BESTAO policy review to this Issue: | 21 |
| What can be expected in the following editions: | 21 |
| About BESTAO Consulting Co. Ltd..... | 22 |

Message from BESTAO

Dear Readers,

We hereby present you with the December 2023 edition of China Regulatory and Compliance Observation.

Policies, laws, regulations, certification and standards for agricultural machinery, construction, cybersecurity and earth-moving etc. of China in December 2023 are elaborated in this edition.

In the horizontal section, you'll read about the briefing on the latest sector standard managing measure, and a guiding opinion issued by eight ministries jointly on accelerating the transition of traditional manufacturing sectors.

The agricultural machinery section puts forwards a serial of important notices on mechanization and intelligent equipment technologies.

In regards of construction and mining machinery, a notice on mining robot application scenarios and some updates on mining unmanned driving sector standards are elaborated.

Other important topics covered in this issue range from CCC, emission, new energy and ESG, especially two mandatory sector standards on emission for non-road machinery.

The policy briefing of this edition is on Current Status of Intelligent Development in Chinese Coal Mines, and a translation of official FAQ on China RoHS 2.0.

Enjoy the reading.

Best Regards,

AEM project team of BESTAO



Horizontal

1. New Policy to Facilitate Upgrading of Traditional Manufacturing Industry

On December 29, 2023, the Ministry of Industry and Information Technology (MIIT) and seven other ministries jointly issued the *"Guiding Opinions on Accelerating the Transformation and Upgrading of Traditional Manufacturing."* The document puts forward 18 opinions from the perspectives of driving development through innovation, empowering with digital technology, transforming for energy conservation and carbon reduction, promoting industrial integration, and providing policy support. These opinions aim to facilitate the technological transformation and upgrading of traditional manufacturing, accelerating equipment updates, process upgrades, digital empowerment, and management innovation. The goal is to propel traditional manufacturing towards high-end, intelligent, green, and integrated transformation.

Notably, the document proposes to increase financial and taxation support for technological transformation in the manufacturing industry. Specifically, this includes:

- i) supporting traditional manufacturing enterprises to participate in the cultivation and evaluation of "high-tech enterprises," "specialized and innovative small and medium-sized enterprises," and enjoying their fiscal incentives and subsidies,
- ii) implementing corporate income tax exemptions for the purchase of equipment dedicated to environmental protection, energy conservation, and safe production, encouraging enterprises to increase investment in hardware and software equipment,
- iii) utilizing existing relevant refinancing to provide funds of preferential interest rate for projects that are key to the transformation and upgrading of eligible traditional manufacturing,
- iv) leveraging the role of the National Industry-Finance Integration Platform, Industrial Enterprise Technology Transformation and Upgrading Guidance Initiative, and other policies to guide banks to increase credit support for the transformation and upgrading of traditional manufacturing in accordance with market-oriented and rule-of-law principles, optimizing related financial products and services,
- v) encouraging industrial investment funds to increase support for equity investment in traditional manufacturing,
- vi) leveraging the role of the multi-tiered capital market to support eligible traditional manufacturing enterprises in conducting technological transformation or increasing R&D investment through various financing methods such as stocks and bonds, and achieving transformation and upgrading through mergers and acquisitions.

These measures will bring technological and cost advantages to local traditional manufacturing enterprises, including machinery manufacturing companies, thereby exerting new competitive pressures on overseas products.

2. SAMR Strengthens Management on Sector Standards

On December 20, 2023, SAMR (State Administration for Market Regulation) released the latest revised version of the *"Administrative Measures for Sector Standards."* This document aims to address some issues in the current sector standards, such as the scope of standard formulation, the coordinated relationship between sector standards and national standards, patent disposal in sector standards, the adoption of international standards in sector standards, foreign participation in sector standard formulation, and the transparency of sector standards.

Sector standards hold significant importance in China, holding an equally significant position as national standards over the long term. In the machinery industry, numerous sector standards are in use, and some are still referenced by market access schemes, becoming de facto mandatory requirements that products must meet. For example, sector standards like *"JB/T3244 battery reach trucks"*, *"JB/T9012 side-loading trucks"*, and *"JB/T3300 counterbalanced fork-lift trucks – testing method for whole machines"* are referenced in the regulation *"Regulation on Safety Technology for Special Purpose Motor Vehicles in Special Fields."*

However, sector standards, managed by industry authorities like MIIT, differ from national

standards that are managed by the standardization authority, SAMR/SAC. As a result, there is a certain degree of competition between the two. The boundaries between them are difficult to define, leading to issues such as duplication and conflicts.

Currently, China is addressing these problems. The revised issue of the *"Administrative Measures for Sector Standards"* is the SAMR/SAC's effort to streamline the relationship between sector standards and national standards and regulate the management of sector standards. Implementing the new measures will enhance the transparency and alignment with international standardization practices of sector standards, making it easier for foreign enterprises to access relevant information and participate in the formulation of related standards.

Nevertheless, the situation where sector and national standards are managed by different departments remains unchanged. In the future, sector standards will still play an equally important role as national standards. AEM should therefore consider sector standards as equals to national standards, actively keeping track of, and even participating in the formulation of sector standards.



Agricultural and Forestry Machinery

3. December Agricultural Machinery Promotion Update

On December 29, 2023, the Agricultural Mechanization Central Station of the Ministry of Agriculture and Rural Affairs (MARA) announced the results of the second batch of advanced evaluations for agricultural wheeled tractors. According to the announcement, 14 tractor products from three companies were selected as "tractors reaching the leading domestic technological level," including two products from Kubota. The evaluation is part of the promotion and application activities for advanced technologies in wheeled tractors organized by the Agricultural Mechanization Central Station of MARA. The evaluation follows the "Implementation Rules for Advanced Evaluation of Agricultural Wheeled Tractors (Trial)," based on the sector standard "NY/T 3207-2018 Technical Level Evaluation Method for Agricultural Wheeled Tractors." Producers of wheeled tractors with 80 horsepower or above, holding product promotion appraisal certificates, are eligible to apply.

On December 15, 2023, the Ministry of Agriculture and Rural Affairs (MARA) and the Ministry of Industry and Information Technology (MIIT) jointly selected typical application scenarios for the second batch of agricultural robots. The project focuses on 12 key applications in three critical directions: planting, breeding, and primary processing of agricultural products. It aims to gather and select a group of robots' typical application scenarios with advanced technology, significant effects, replicable promotion, and broad application prospects. The robots selected will be promoted nationwide. Enterprises registered within China, possessing independent legal personality, good economic performance, and a positive credit record in safety production and environmental protection, are eligible to participate.

4. CAAMM and CSAM Develop Standards for Agricultural Machinery Emission Measurement Methods

On December 25, 2023, the China Agricultural Machinery Industry Association (CAAMM) and the China Society of Agricultural Machinery (CSAM) jointly released a group of collective standards for the measurement methods of agricultural machinery emissions, as follows:

| No. | Standard Reference | Standard Name | Main Contents | Implementation Date |
|-----|--------------------|---|---|---------------------|
| 1 | T/CAAMM 302-2023; | <i>Harvesting Machinery - Exhaust Pollutant Onboard</i> | This document specifies the terms and definitions, test site, instrumentation, pre-test preparations, and exhaust pollutant measurement methods for onboard | March 25, 2024 |

| No. | Standard Reference | Standard Name | Main Contents | Implementation Date |
|-----|-------------------------------------|---|---|---------------------|
| | T/NJ 1473-2023 | <i>Measurement Methods</i> | measurement of exhaust pollutants from harvesting machinery. It applies to the testing of the entire exhaust pollutants from self-propelled harvesting machinery equipped with diesel engines rated at 37 kW and above. | |
| 2 | T/CAAMM 303-2023; T/NJ 1475-2023 | <i>Agricultural Machinery - Nitrogen Oxides (NOx) Rapid Measurement Method</i> | This document specifies the terms and definitions, test conditions, measurement equipment, measurement methods, data processing, etc., for the rapid measurement method of nitrogen oxides (NOx) in the entire agricultural machinery. It applies to the testing of NOx exhaust pollutants from agricultural machinery equipped with diesel engines rated at 37 kW and above. | March 25, 2024 |
| 3 | T/CAAMM 304-2023; T/NJ 1476-2023 | <i>Agricultural Machinery - Rapid Particle Number (PN) Emission Testing Method</i> | This document specifies the terms, definitions, test equipment, pre-test preparations, test procedures, and data processing for the rapid testing of particle numbers (PN) emissions from agricultural machinery equipped with wall-flow diesel particulate filters (DPF). It applies to self-propelled agricultural machinery equipped with GB 20891-2014 Stage IV diesel engines and DPF. | March 25, 2024 |
| 4 | T/CAAMM 305-2023; T/NJ 1477-2023 | <i>Agricultural Machinery - Emission Control Diagnostic System (NCD/PCD) Testing Method</i> | This document specifies the terms and definitions, test preparation, overall requirements for test items, basic functional test methods, electrical test methods, and reagent test methods for the Agricultural Machinery Emission Control Diagnostic System (NCD/PCD). It applies to agricultural machinery equipped with diesel engines rated at 37 kW and above, meeting the Stage IV requirements of GB 20891-2014. | March 25, 2024 |

The current exhaust smoke measurement method for non-road diesel mobile machinery is "GB 36886-2018 Limits and measurement methods for exhaust smoke from non-road mobile machinery equipped with diesel engine." Due to its early formulation date, there are some shortcomings in measuring the

smoke emissions of China IV machinery. In the future, China may update this standard or establish new ones.

The four standards released this time may serve as the foundation for future new standards. AEM members should understand these standards and be aware of the development direction of future non-road diesel mobile machinery exhaust smoke measurement methods in China.

5. MIIT Releases Energy Efficiency Standards for Agricultural Machinery

On December 20, 2023, the Ministry of Industry and Information Technology (MIIT) released a batch of energy efficiency standards for agricultural machinery, with the date to come into effect set on July 1, 2024.

| No. | Standard Reference | Standard Name | Main Contents |
|-----|--------------------|---|---|
| 1 | JB/T 14390-2023 | <i>Ride type rice transplanter—Energy efficiency limit value and energy efficiency rating</i> | This document specifies the energy efficiency grades and limits, test methods, energy efficiency determination rules, and energy efficiency grade labeling for ride-type rice transplanters. This document applies to the energy efficiency grading activities of ride-type rice transplanters. |
| 2 | JB/T 14391-2023 | <i>Head-feed combine harvester — Energy efficiency limit value and energy efficiency rating</i> | This document specifies the energy efficiency grades and limits, energy efficiency evaluation, test methods, and energy efficiency grade labeling for head-feed combine harvesters. This document applies to the energy efficiency grading activities of head-feed combine harvesters. |
| 3 | JB/T 14392-2023 | <i>Forage harvester — Energy efficiency limit value and energy efficiency r</i> | This document specifies the energy efficiency grades and limits, energy efficiency evaluation, test methods, and energy efficiency grade labeling for forage harvesters. This document applies to the energy-efficiency grading activities of forage harvesters. |
| 4 | JB/T 14393-2023 | <i>Whole-feed combine harvester — Energy efficiency limit value and energy efficiency ratio</i> | This document specifies the energy efficiency grades and limits, energy efficiency evaluation, test methods, and energy efficiency grade labeling for whole-feed combine harvesters. This document applies to the energy efficiency grading activities of wheel-type and crawler-type whole-feed combine harvesters. |

| No. | Standard Reference | Standard Name | Main Contents |
|-----|--------------------|---|---|
| 5 | JB/T 14297-2023 | <i>Shielding submersible motor pumps—Minimum allowable values of energy efficiency and energy efficiency grade</i> | <p>This document specifies the energy efficiency grades, energy efficiency limits, energy-saving evaluation values, test methods, inspection rules, and energy efficiency grade labeling for shielded submersible electric pumps.</p> <p>This document applies to the energy-efficiency grading activities of single-phase or three-phase shielded submersible electric pumps.</p> |
| 6 | JB/T 14298-2023 | <i>Series small-sized light sprinkling irrigation machines—Minimum allowable values of energy efficiency and energy efficiency grades</i> | <p>This document specifies the energy efficiency grades, energy efficiency limits, energy-saving evaluation values, test methods, inspection rules, and energy efficiency grade labeling for lightweight and small-scale irrigation machines.</p> <p>This document is applicable to the energy-efficiency grading activities of lightweight and small-scale irrigation machines with a supporting power of less than or equal to 22 kW.</p> |
| 7 | JB/T 14299-2023 | <i>Without wall-up pumps—Minimum allowable values of energy efficiency and energy efficiency g</i> | <p>This document specifies the energy efficiency grades, energy efficiency limits, energy-saving evaluation values, test methods, inspection rules, and energy efficiency grade labeling for non-clogging pumps.</p> <p>This document is applicable to the energy efficiency grading activities of non-clogging pumps transporting industrial wastewater with solid particles and fibers, urban and rural domestic sewage, and similar liquids.</p> |
| 8 | JB/T 14300-2023 | <i>Garden motor pumps—Minimum allowable values of energy efficiency and energy efficiency grade</i> | <p>This document specifies the energy efficiency grades, energy efficiency limits, energy-saving evaluation values, test methods, inspection rules, and energy efficiency grade labeling for horticultural electric pumps.</p> <p>This document applies to the energy efficiency grading activities of horticultural electric pumps transporting clear water with a temperature not exceeding 35°C or liquids with similar physical and chemical properties to clear water.</p> |

| No. | Standard Reference | Standard Name | Main Contents |
|-----|--------------------|---|---|
| 9 | JB/T 14301-2023 | <i>Self-priming pumps— Minimum allowable values of energy efficiency and energy efficiency grad</i> | This document specifies the energy efficiency grades, energy efficiency limits, energy-saving evaluation values, test methods, inspection rules, and energy efficiency grade labeling for self-priming pumps. This document applies to the energy efficiency grading activities of self-priming pumps with a power of 0.25 kW and above. |

To implement China's carbon peak and carbon neutrality goals, the State Council, in its "*Comprehensive Work Plan for Energy Conservation and Emission Reduction During the 14th Five-Year Plan*," and the Ministry of Agriculture and Rural Affairs (MARA) along with the National Development and Reform Commission (NDRC), in their "*Implementation Plan for Agricultural and Rural Emission Reduction and Carbon Sequestration*," have both emphasized the need to accelerate the scrapping and replacement of old agricultural machinery and promote the adoption of advanced and applicable low-carbon, energy-efficient agricultural machinery.

Promoting low-carbon, energy-efficient agricultural machinery equipment requires the support of standards. The standards mentioned above can play a crucial role in this process and are therefore recommended to AEM members to pay attention to.



Construction and Mining Machinery

6. Typical Robot Application Scenarios Being Collected in Mining Sectors

On December 7, 2023, the National Mine Safety Administration and the Ministry of Industry and Information Technology (MIIT) jointly issued a notice soliciting typical robot application scenarios in mining sectors (hereinafter referred to as “the Notice”). This initiative aligns with the tasks outlined in the **14th Five-Year Plan on Robot Industry Development** (issued by multiple ministries jointly in December of 2021), and the **Implementation Plan for the “Robots Plus” Application Action** (issued by multiple ministries in January of 2023). The collection deadline was January 3, 2024.

The objective of this Notice is to collect typical robot application scenarios in mining sectors (coal and non-coal, including underground and open pits) that showcase advanced technology, remarkable effectiveness, easy promotion, and wide application scope. The aim is to guide collaboration between robot manufacturers and users, fostering enhanced application and optimization.

The Notice defines 11 application scenarios as typical, encouraging robots applicable to these to be filed as “typical cases.” These scenarios cover activities in coal mines (e.g. open pit mines, boring, mining, transporting, safety control), and non-coal mines (e.g. mining, processing, and smelting).

- Any manufacturers with a registered entity in China are qualified to apply their robot applications, cases feature key technologies advanced in both the Chinese and international markets. Other conditions and application requirements include Rather good economic status and excellent record on safety production and environmental protection.
- Application scenarios that have formed a systematic solution for typical scenarios, which can also improve intelligent mining to be more professional and standardized.
- Applicants should have comprehensive personnels and technical basis for the possible further promotion of their applying scenarios, and are willing to cooperate with further on-site investigation and future promotion.

AEM and AEM members are recommended to explore the possibility of participating in this initiative, especially those with qualified and advanced solutions. Being selected as “typical application scenario owners” can directly involve manufacturers in China’s mining intelligent transition, providing a market preference and advantage.

7. AI Unmanned Driving Standards in Plan for Open Pit Mines

On December 20 to 22, 2023, SAC/TC28/SC42 (Artificial intelligence) conducted a series of working meetings. The primary focus was for working groups within SC42 to engage in face-to-face discussion

and coordination on ongoing standards. Among these groups, the Working Group of Automated Driving, relevant to AEM on mining machinery, discussed three proposals over Sensing and Positioning, Decision-Making, and Routing.

Standard discussion

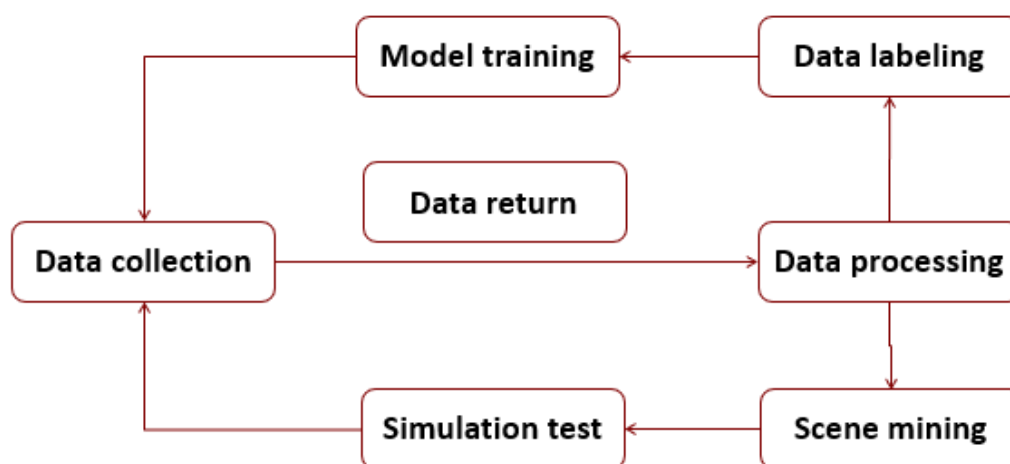
- Artificial Intelligence – Unmanned driving system for open pit mines – Sensing and positioning
- Artificial Intelligence – Unmanned driving system for open pit mines – Decision-making
- Artificial Intelligence – Unmanned driving system for open pit mines – Routing

The standard proposals on such topics are made based on the following considerations:

- Vast market and application: more than one thousand large and medium open pit mines in the country, with an ownership of more than 300 thousand mining transporting equipment.
- Current issues: low transporting efficiency, relatively high injury incidents, and difficult driver recruitment.
- Unmanned driving is a key link in pursuing unmanned mining and takes up a large proportion of the operation cost.

While these standards are still in the proposal stage, the Working Group of Automated Driving summarized the year 2023 and announced the group’s working plan for 2024.

The Working Group summarizes the developed trend of AI’s application in unmanned driving from two perspectives:





The unmanned driving standard system will be optimized on:

- Data set: automatic labeling system of data, quality assessment for data set, generated 3D scene data.
- Algorithm and model: multi-source sensing and integration, big model of unmanned driving, end-to-end unmanned driving, dependability assessment, routing, intelligent decision-making control.
- Simulation test: constructing a set of scenarios, testing software toolchain, and assessment indicator system.
- Sector application: autonomous driving vehicles, small passenger vehicles, transporting vehicles in open pit mines.

Attending experts of this Research Group are from different organizations such as the Chinese Academy of Science, the Artificial Intelligent Association of Shanghai, Xiaomi, Huawei, Intel etc. For the year 2024, the research and formulation will focus on the standard series on unmanned driving systems for open pit mines, including part 1-general requirements, part 2-sensing and positioning, part 3-routing, part 4-decision making, and part 5-cloud control platform.

AEM and AEM members should take note of the developing trends in China's AI unmanned driving structure and system, understanding the potential principles and impacts.



Emission

8. Air Quality Improvement Requirement Updated on a National Level

On December 7, 2023, the State Council issued the **Action Plan for Continuous Improvement of Air Quality** (hereinafter referred to as “the Action Plan”). This plan sets ambiguous targets, aiming to reduce PM 2.5 concentration in cities at the prefecture level and above by 10% compared with 2020, control severe pollution days to within 1% ,and achieve more than 10% reductions in total emissions of nitrogen oxides and VOCs from the 2020 level. The critical focus remains on treating air pollution, particularly P.M 2.5.

Issuing air quality improvement policy from top national level has been a routine for the Country since environmental protection was set as one of China’s key subjects. The Action Plan is a further sequel of the **Air Pollution Prevention and Control Action Plan** (issued in 2014) and the **Three-Year Action Plan to Fight Air Pollution** (issued in 2018), which are all significant policy documents for improving air quality. Like the previous two documents, this Action Plan also specified the general ideas, improvement goals, key tasks and responsibilities for the continuous improvement of air quality from the issuing year to 2025.

Key tasks clarified in the document include:

- Optimizing the industrial structure and promoting the green upgrading of industrial products.
- Improving the energy mix and accelerating the clean, low-carbon, and efficient development of energy.
- Upgrading the transportation structure and vigorously developing a green transportation system.
- Strengthening the treatment of non-point source pollution and improving the level of refined management.
- Reinforcing emission reduction of multiple pollutants and effectively reducing the emission intensity.

For the machinery sector, implications from the Action Plan include:

- Key areas include Beijing-Tianjin-Hebei and surrounding regions; the Yangtze River Delta region; and the major industrial developing regions in Shanxi and Shaanxi province.
- High energy consumption high emission and low-ten projects will not be approved.
- Facilitate and encourage the development and application of new energy for high-emission sectors (including machinery, vehicles, etc.)

And specifically for non-road machinery:

- Accelerate the new/clean energy transition and development in the machinery sectors.
- By 2025, eliminate the "black smoke" from non-road machinery in key areas.

- Non-road mobile machinery with emission standards below the NR I emission requirements will be eliminated.
- Increase the frequency of diesel oil sampling in the fuel tanks of trucks, non-road mobile machinery, and ships to ensure fuel quality.
- Improve the capability of mobile source environmental supervision and build remote online monitoring platforms for heavy diesel vehicles and non-road mobile machinery on the state level and in key regional provinces.
- Enterprises producing and importing motor vehicles and non-road mobile machinery should disclose relevant environmental protection information, such as emission testing and pollution control technologies in accordance with the law.

9. MEE Issued Two Mandatory Emission Supervision Standards

On December 4, 2023, the Ministry of Ecology and Environment (MEE) issued an announcement on two mandatory emission supervision standards. These standards, effective from July 1, 2024, are formulated to implement the **Environmental Protection Law of China** and the **Air Pollution Prevention and Control Law of China**, aiming to improve ambient air quality, strengthen the management of mobile sources in key sectors, improve the supervision system for non-road machinery, and standardize remote monitoring technology for machinery emissions. The key contents of the standard are summarized below:

HJ 1321—2023 Technical guide for mobile source supervision and verification in key industries

This standard aims at responding to heavy pollution weather, improving ambient air quality, as well as promoting accurate, scientific and legal pollution control. It specifies the requirements for access control and video surveillance system construction, supervision system construction and verification technology for key enterprise of sectors.

It is applicable to key industry enterprises and key vehicle-using enterprises such as mines and construction machinery manufacturing that need to strengthen the management of mobile sources in the process of air pollution performance classification and ultra-low emission transformation, etc. Other enterprises can refer to the implementation according to their actual conditions.

In general, the standard requires that enterprises fall within the key industries defined in the document should ensure the emission of all the vehicles and machinery that they are using for transportation should meet the mandatory requirements of all mobile sources, as well as establishing management platform and system within the enterprise for achieving this goal.

Specifically, this standard stipulates the requirements for the aforementioned enterprises on transportation of raw/auxiliary materials, fuels, products etc., and those fore the construction of the supervision system.

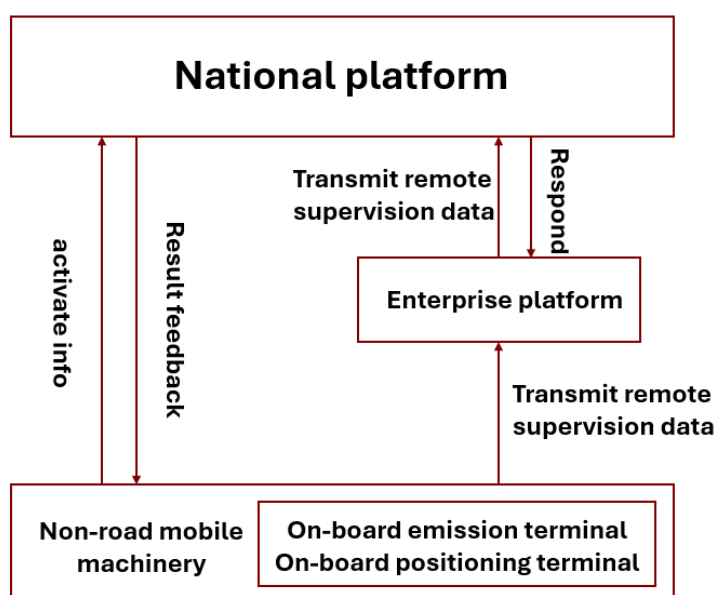
AEM and AEM members should be aware that, this standard will initiate impact to them in two perspectives: for construction machinery manufacturers who has factory in China, they should obey the whole standard's stipulations; and for those that sells non-road machinery products to the enterprises falling into the standard scope, the impact would be easier, because they would mainly need to comply with China's information disclosure and emission control requirements, and cooperate with their buyers on necessary measures for their system construction and supervision.

HJ 1322—2023 Technical specification for emission remote supervision system of non-road mobile machinery

This second standard applies to the remote online supervision network of non-road mobile machinery equipped with diesel engines. It falls within the managing scope of ***HJ 1014-2020 Emissions control technical requirements of non-road diesel mobile machinery***, meaning that all units with a rated net power equal to or above 37 kW.

The standard stipulates the emission remote supervision requirements for non-road mobile machinery, including general requirements, performance/functional/safety requirements for on-board terminals and enterprise platform, together with test methods, communication protocol and data format of data transmission. It specifies following contents:

- General requirements: based on the following data flow chart, elaborate the items that machinery should be conformed with or equipped within its remote supervision system:



- On-board terminal: put forward further details on the requirements of the device, and to summarize, the technical requirements basically include:

| Technical Requirements | | On-board emission terminal | On-board positioning terminal |
|---|--------------------------|---|-------------------------------|
| Functional requirements | Start-up self-inspection | √ | √ |
| | Activation | √ | √ |
| | Data collection | Data flow info (5.2.3.1) Diagnose info (5.2.3.2) Positioning info (5.2.3.3) | Positioning info (5.2.3.3) |
| | Data storage | √ | — |
| | Data transmission | √ | √ |
| | Data retransmission | √ | — |
| | Dismantle alarm | √ | √ |
| Performance requirements | Adaptability | √ | √ |
| | Protection performance | √ | √ |
| | Durability | √ | √ |
| | Positioning performance | √ | √ |
| | EMC | √ | √ |
| Requirements for data security | Security chips | √ | |
| | Security strategy | √ | √ |
| Note: "√" means such requirement exists, and "—" means no such requirement. | | | |

- Enterprise platform: stipulates the general, functional, and performance requirements for the platform.
- Test methods: presents the testing items and methods for on-board terminals, and enterprise platform.
- Annexes provide detailed requirements presents: the test method of on-board terminals; static data stored on enterprise platforms; communication protocols and data format for both on-board terminals and enterprise platforms, and self-assessment report contents.

This standard provides practical guidance for manufacturers of non-road mobile machinery, especially those working on remote supervision and relevant platform construction. It is one of the key measures in China's NR IV emission control management, so AEM manufactures are suggested to take actions for compliance.

To summarize, AEM members with business in China are advised to thoroughly check into these two mandatory standards and take necessary actions to avoid possible issues once they've implemented in July of 2024.



CCC

10. Starting from January 1, 2024, CCC Fully Implements Electronic Certificates

Under the "Announcement on Improving the Management of Compulsory Product Certification (CCC) Certificates and Marks" issued by the State Administration for Market Regulation (SAMR), the CCC certification will fully implement electronic certificates starting from January 1, 2024.

Transition Arrangements:

For valid paper certificates already issued by designated certification bodies, the certificate holders can continue to use them and naturally transition to electronic certificates through changes, renewal, and other methods. Both paper and electronic certificates have equal legal validity.

Acquisition Methods:

CCC applicants can download and use electronic certificates through the corresponding business systems of designated certification bodies, following the operating instructions provided by the certification bodies.

Content Style:

Electronic certificates will uniformly adopt the style specified by the SARM, utilizing the OFD file format as the carrier and affixing the electronic seal of the issuing body.

Information Inquiry:

Certificate information can be verified by scanning the QR code with a mobile phone or by logging into the websites of the various issuing bodies to check the authenticity of the certificates. SAMR's National Certification and Accreditation Information Public Service Platform (<http://cx.cnca.cn>) also provides electronic certificate information inquiry services.

Anti-Tampering Measures:

Electronic certificates are equipped with anti-tampering features. When opened with OFD format reading software, moving the mouse over the electronic seal allows users to view information about the electronic seal. If an electronic certificate is altered or its content tampered with, the electronic seal information will not be displayed. It may therefore show information indicating that the issuing body is not qualified, signifying a verification failure.

AEM's plant protection machinery and wheeled tractors are covered by the CCC system, and it is necessary to obtain CCC certification through third-party verification to enter the Chinese market. Relevant AEM members should apply for an electronic version of the CCC certificate for their newly produced plant protection machinery and wheeled tractors from CCC certification bodies which are designated by the Accreditation and Certification Administration of China (CNCA).



11. CCER Implementation Rules in Place on Voluntary GHG Reduction Project

On December 25, 2023, the State Administration for Market Regulation (SAMR) issued the **Implementation Rules on Project Verification and Validation for GHG Emission Reduction** (hereinafter referred to as “the Implementation Rules”).

These rules are crucial for the **Administrative Measures of Trading on Voluntary GHG Emission Reduction**¹ (for interim use) (issued on October 19, 2023 by the Ministry of Ecology and Environment, and the SAMR), and for the Chinese Certified Emission Reduction (CCER, the country’s voluntary carbon reduction trading market).

The rules, which comprise of seven chapters, specify the basis, general procedure, and requirements for project approval and GHG emission reduction verification. Their main contents include:

- Specific methodologies released by MEE for GHG voluntary emission reductions are the basis of verification and validation. Up to now, four methodologies have been issued in October of 2023 for afforestation carbon sink, grid-integrated solar-thermal generation, grid-integrated offshore wind turbine generation, and mangrove afforestation.
- Procedures and requirements of project verification and emission reduction validation are very similar to regular conformity assessments and including onsite verification.
- Information submission and disclosure: verification and validation bodies should publicize relevant information that includes but is not limited to the detailed implementation rules of such activities and charging rates.
- Project applicants should ensure the authenticity, completeness, and validity of the documents and information that they are submitting. Verification and validation bodies should ensure the conformity, authenticity, and accuracy of their activities and the documents they issued, and they are also responsible for keeping the security of the information and data submitted by the applicants.

The Implementation Rules will be very helpful for manufacturers, especially those who have a possible project or solution for GHG emission reduction. More methodologies are expected to be issued by the MEE in the future and more sectors would be covered. What may facilitate AEM and AEM members for the possible future participation is that this document is referred to as GB/T 27029-2022 Conformity assessment—General principles and requirements for validation and verification bodies (identical to ISO/IEC 17029:2019), making its principles or basic approach more familiar for MNCs or foreign manufacturers to adapt to.

¹ Further details of this document please refer to article #11 of **20231115 BESTAO-AEM China Compliance -October 2023**.



New Energy

12. MIIT Plans New Regulations on EV Power Battery Management

On December 15, 2023, the Ministry of Industry and Information Technology (MIIT) issued a solicitation for opinions on the "*Administrative Measures for the Comprehensive Utilization of New Energy Vehicle Power Batteries (Draft for Soliciting Opinions)*," with the feedback period running from December 15, 2023, to January 15, 2024. This document outlines the regulatory requirements for both new energy vehicle manufacturers and battery producers on managing all batteries they install and produce. Key points are as follows:

Responsibility Identification:

- Automotive manufacturers are responsible for the recycling of installed power batteries;
- Battery manufacturers hold responsibility for the direct sale of power batteries to the market (such as battery leasing and operational entities).

Obligation of Battery Coding:

- Battery manufacturers should use non-toxic or low-toxic materials, and adopt standardized, universal, and easily disassembled product structure designs.
- They must encode the produced power batteries according to standard GB/T34014 for the coding regulation for automotive traction batteries and provide disassembly technical information to automotive manufacturers.

Obligation of Battery Take-back:

- Automotive manufacturers should establish, either independently or by delegation, collection service points in administrative regions at the prefectural level and above, matching the sales volume of their new energy vehicles.
- Battery manufacturers should establish, either independently or by delegation, concentrated storage service points in provincial administrative regions where power batteries are directly sold, matching the sales volume.
- The construction of these service points should comply with the requirements of standard *GB/T 38698.2 Recovery of traction batteries used in electric vehicle—Management specification—Part 2: Take-back service network*.

Obligation of Information Reporting:

- Automotive manufacturers should, within six months after production of their new energy vehicles, be granted the "admission of road motor vehicle products" (i.e., MIIT Vehicle Public Announcement). Additionally, after the new energy vehicles they imported obtain CCC certificates, technical information such as power battery disassembly, dismantling, and control system

communication protocols, should be submitted to the "National Monitoring and Comprehensive Management Platform for New Energy Vehicles and Power Battery Recycling Traceability."

- Automotive manufacturers should provide power battery disassembly technical information to enterprises for the recycling and dismantling of scrap motor vehicles.
- Automotive manufacturers should upload production traceability information to the national platform within 10 working days after the issuance of the factory certificate to their new energy vehicles, or within 10 working days after customs clearance for their imported new energy vehicles.
- Automotive manufacturers should also upload sales traceability information within 10 working days after vehicle registration, and upload retirement information within 10 working days after the disposal of old power batteries generated during the research and development, production, and installation processes.
- Battery manufacturers should upload warehouse entry information to the national platform within 10 working days after receiving returned power batteries for repair, and upload retirement information within 10 working days after the disposal of old and waste power batteries generated during the research and development, production, and repair processes.

This regulation is aimed at electric vehicle manufacturers and their power battery suppliers. However, against the backdrop of China's vigorous development of electric mobile machinery, the obligations outlined in this regulation may become crucial references for future regulatory frameworks targeting electric machinery manufacturers and their power battery suppliers. It is recommended that relevant AEM members thoroughly understand this regulation to be well-prepared for potential future regulations related to electric machinery introduced in China.

BESTAO policy review to this Issue:

- Policy Briefing - Current Status of Intelligent Development in Chinese Coal Mines
- BESTAO Translation - Official FAQs on China RoHS II

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. SAC issued guidelines for standard project applications 2024
2. National guidelines issued for automotive chip standard systems

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:

- 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:

BESTAO Consulting Co., Ltd.
Building No.5, Niuwangmiao, Chaoyang District
Beijing, 100102. P R China
Phone: +86 10 6599 6261
Fax: +86 10 6474 9117
Email: assistant@bestao-consulting.com
Website: www.bestao-consulting.com