China Regulatory and Compliance Observation

July 2023

AEM
Association of Equipment Manufacturers

BESTAO
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Message from BESTAO

Dear Readers,

As usual, we’re happy to present you with the July 2023 edition of China Regulatory and Compliance Observation for AEM.

In the edition, policies, laws, regulations, certification and standards for agricultural machinery, construction, cybersecurity and earth-moving etc. of China in July 2023 are elaborated.

The horizontal section present you with the updates on China’s accreditation and certification regulation, and a mapping of Chinese TC with those that AEM focuses on.

In regards of the agricultural machinery section, a policy on supporting the hilly and mountainous machinery is elaborated, and some latest information on 4 association standards that are calling for comments.

The construction and earth-moving machinery section brought you with the working meeting key takeaways of TC227, and a digitalization platform standard for construction machinery that just started to formulate.

Other important topics covered in this issue range from China RoHS, ICV and new energy.

The policy briefing of this edition is a full standard list of key agricultural machinery TCs.

Enjoy the reading.

Best Regards,

AEM project team of BESTAO
1. Certification and Accreditation Regulation of China Calling for Comments

On July 13, 2023, the State Administration for Market Regulation issued the draft of *Regulations of the People’s Republic of China on Certification and Accreditation* (hereinafter referred to as “the Regulations”) to call for public comments. The call-for-comment period ended on July 29, 2023.

The current edition of the Regulations was revised then published in 2020 and must be adhered to when taking on certification and accreditation projects within the People's Republic of China.

The revision of this Regulation was initiated in 2021, and a previous draft was issued in November of 2021 to call for public comments. This currently published draft is a new version in consideration of the public opinion that were collected.

Compared with the presently effective Regulations, the main modifications of this draft include:

- Adding “inspection and testing activities” into applying scope and all the relevant requirements within.
- Specifying the definitions of “inspection and testing” and “conformity assessment”.
- Combining chapters II and III (all regarding accreditation in the present effective version) into a single chapter and adding an additional chapter for inspection and testing requirements.
- Reinforcing trans-department coordination for system management, and specifically stipulate the establishment of a “Inter-Ministerial Joint Meeting of Accreditation and Certification Works”.
- Emphasizing the importance of international cooperation and communication in the field and encouraging such activities.
- Putting forwards the significance and basic scope of an informatized and digital management system for accreditation and certification in the country.

For AEM and AEM members, the revision of the Regulations will not initiate direct impact on product compliance, but once implemented, the modified articles and requirements will change China’s certification system which would eventually lead to impacts on manufacturers with business in the market (e.g.: certification body adjustment etc.). However, the emphasize on international cooperation, and the possible streamlining of the certification management system are all positive signs for foreign stakeholders.

More details are elaborated and modified in the Regulation draft, BESTAO has translated the whole draft into English, so for the complete text, please visit: https://www.bestao-consulting.com/detail?id=1494&status=bestao_library

2. AEM-relevant ISO TC Mapping with China’s Standardization System

China’s management on mirroring organization/units for ISO and IEC are based on an official document called *Administrative Measures on Participation in Standardization Activities of International Organization for Standardization (ISO) and the International Electrotechnical
Commission (IEC) (issued by the former General Administration of Quality Supervision and the Standardization Administration of China and has come to force on May 1, 2015. Hereinafter referred to as “the Administrative Measures”).

Based on the Administrative Measures, sector authorities, regional standardization administrative departments directly under the Central Government, as well as the organizations/units that undertake national TC secretariat, along with enterprises, scientific research institutes, inspection and testing certification bodies, industry associations and colleges and universities can all apply for being a mirroring group of ISO/IEC TC. SAC is the regulator that will review the applications, and makes the decision on the establishment, adjustment or termination of a mirroring group.

In a word, i) SAC has the right to evaluate and decide on the applications; ii) the unit/entity that holds ISO/IEC mirroring group can be changed, adjusted in accordance with the further requirements/procedures stipulated in the Regulation under certain conditions (e.g.: fail to perform its obligations, or no longer able to undertake the works).

And based on the ISO TC/SC list provided by AEM that include the ones the organization is focused, the matching mirroring groups and the hosting organizations/units are:

<table>
<thead>
<tr>
<th>No.</th>
<th>International TC/SC Name</th>
<th>International TC/SC Name</th>
<th>China Mirror TC</th>
<th>Hosting Organization</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ISO/TC 23/SC 2</td>
<td>Common tests</td>
<td>SAC/TC201</td>
<td>SAC/TC201 Agricultural Machinery</td>
<td>Chinese Academy of Agricultural Mechanization Science Group Co., Ltd</td>
</tr>
<tr>
<td>2</td>
<td>ISO/TC 23/SC 3</td>
<td>Safety and comfort</td>
<td>SAC/TC201</td>
<td>SAC/TC201 Agricultural Machinery</td>
<td>Chinese Academy of Agricultural Mechanization Science Group Co., Ltd</td>
</tr>
<tr>
<td>3</td>
<td>ISO/TC 23/SC 4</td>
<td>Tractors</td>
<td>SAC/TC201</td>
<td>SAC/TC201 Agricultural Machinery</td>
<td>Chinese Academy of Agricultural Mechanization Science Group Co., Ltd</td>
</tr>
<tr>
<td>4</td>
<td>ISO/TC 23/SC 14</td>
<td>Operator controls, operator symbols and other displays, operator manuals</td>
<td>SAC/TC201</td>
<td>SAC/TC201 Agricultural Machinery</td>
<td>Chinese Academy of Agricultural Mechanization Science Group Co., Ltd</td>
</tr>
<tr>
<td>5</td>
<td>ISO/TC 23/SC 15</td>
<td>Machinery for forestry</td>
<td>SAC/TC61</td>
<td>Harbin Forestry Machinery Research Institute of National Forestry and Grassland Administration</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>ISO/TC 82</td>
<td>Mining</td>
<td>SAC/TC93</td>
<td>China Coal Technology &amp; Engineering Group Shanghai Co.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>ISO/TC 82/SC 8</td>
<td>Advanced automated mining systems</td>
<td>N/A</td>
<td>CITIC Heavy Industries Co., Ltd</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>International TC/SC Name</td>
<td>China Mirror TC</td>
<td>Hosting Organization</td>
<td>Note</td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td>ISO/TC 96/SC 6 Mobile cranes</td>
<td>SAC/TC227/SC2 Mobile Cranes</td>
<td>Zoomlion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>ISO/TC 110/SC 4 Rough-terrain trucks</td>
<td>SAC/TC332 Industrial Trucks</td>
<td>Beijing Materials Handling Research Institute Co., Ltd.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>ISO/TC 127 Earth-moving machinery</td>
<td>SAC/TC334 Earth-moving</td>
<td>Tianjin Research Institute of Construction Machinery (TRICM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>ISO/TC 127/SC 3 Machine characteristics, electrical and electronic systems, operation and maintenance</td>
<td>SAC/TC334 Earth-moving</td>
<td>Tianjin Research Institute of Construction Machinery (TRICM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>ISO/TC 145/SC 3 Graphical symbols for use on equipment</td>
<td>SAC/TC59 Graphical Symbols</td>
<td>China National Institute of Standardization (CNIS)</td>
<td>ISO Secretariat held by Beijing Building Mechanization Research Institute Co. Ltd</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>ISO/TC 195 Building construction machinery and equipment</td>
<td>SAC/TC328 Building Construction Machinery and Equipment</td>
<td>Beijing Building Mechanization Research Institute Co. Ltd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>ISO/TC 214 Elevating work platforms</td>
<td>SAC/TC335 Elevating work platforms</td>
<td>Beijing Building Mechanization Research Institute Co. Ltd</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. **CAAMM and CSAM Develop Standards for Emission Control**

On July 18, 2023, China Association of Agricultural Machinery Manufacturers (CAAMM) and Chinese Society for Agricultural Machinery (CSAM) issued draft of the following jointly-developed association standards to call for comments, with a submission deadline before August 17.

<table>
<thead>
<tr>
<th>No.</th>
<th>Standard</th>
<th>Application Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Harvest machinery - Exhaust contaminant vehicle test method</td>
<td>Specifies the test site, instrument and equipment, preparation before test, and measurement methods for on-board measurement of exhaust pollutants of harvesting machinery. Applicable to harvesting machinery with rated net power of diesel engine at 37kW and above.</td>
</tr>
<tr>
<td>2</td>
<td>Rapid measurement method of NOx for agricultural machinery</td>
<td>Specifies the equipment requirements, measurement methods, data processing for NOx emission of agricultural machinery. Applicable to China NR IV agricultural machinery with rated net power of 37kW and above.</td>
</tr>
<tr>
<td>3</td>
<td>Rapid measurement method for PN emission of agricultural machinery</td>
<td>Specifies the rapid test methods for PN emission of agricultural machinery equipped with wall flow diesel particulate filter (PDF). Applicable to China NR IV agricultural machinery equipped with DPF.</td>
</tr>
<tr>
<td>4</td>
<td>NCD/PCD measurement method of agricultural machinery</td>
<td>Specifies the test contents and methods for NCD/PCD system in agricultural machinery. Applicable to China NR IV agricultural machinery with rated net power at 37kW and above.</td>
</tr>
</tbody>
</table>

Association standards in China are playing a supplementary role to government standards. Since China NR IV standards cannot cover all aspects of products’ testing and inspections, the association standards can supplement such gaps in practical implementation of China NR IV standards. Although these standards are of voluntary nature, it is suggested AEM members to pay attention to them in case the test methods they provide are adopted by future practical tests of China NR IV standards.

The drafts for comments of these standards (in Chinese) can be downloaded at: [http://www.caamm.org.cn/xhwj/3819.htm](http://www.caamm.org.cn/xhwj/3819.htm)

4. **MARA Stresses Support for Agricultural Machinery in Mountainous Areas**

Agricultural area in hilly and mountainous areas accounts for 30% of China’s total area under cultivation, but the comprehensive mechanization rate of cultivation, planting, and harvest in hilly and mountainous areas is 20% lower than the overall mechanization rate of the country. A few days ago, the nongji360.com, an influential media in agricultural machinery, launched a survey on its website about the use of agricultural machinery in hilly and mountainous areas. The survey results show that:
84% of the respondents said that they haven’t found handy machines in the market for the current agricultural scenarios in hills and mountains, 3% said that they didn’t find suitable machine at all, and only 13% said that agricultural machines available in the market can basically meet the needs.

When suitable agricultural machines are not available on the market for agricultural production, 74% of users would choose to buy old machinery and modify it per their actual needs, 10% would choose to buy imported products, 3% would reclaim the land to make it suitable for mechanized operation, and the remaining 13% said they would give up mechanized operation and employ manual labor.

Among various agricultural machinery for hilly and mountainous areas, harvesting machinery was considered the rarest, with 81% of the respondents expressing such point of view. Field management machinery ranked second, supported by 58% of the respondents. The other scarce machinery in the ranking list includes tillage machinery (55%), planting and fertilizing machinery (48%), agricultural handling machinery (45%), agricultural motive power machinery (39%), and grain, oil and vegetable primary processing machinery (19%).

In response to this situation, in early July, the Ministry of Agricultural and Rural Affairs of China (MARA) responded to a group of NPC deputies’ proposals and suggestions on promoting the development of agricultural machinery in hilly and mountainous areas, enumerating the ministry’s countermeasures. Specifically in the response, it is stated that:

- In terms of technical development, MARA will continue building a number of scientific research bases and key laboratories for the whole-process mechanization of agriculture in hilly and mountainous areas.
- For subsidies, MARA will clearly include small- and medium-sized machinery into the scope of subsidized general machinery such as tractors, harvesters, tiller, etc. The ministry will also organize provinces to include the machinery for the featured agriculture in hilly and mountainous areas, such as tea, edible fungi, forest fruits, etc., into their subsidy policies, and to increase the proportion of subsidies for some urgently needed machinery from 30% to 35%.
- In terms of demonstration and promotion, MARA will guide different localities to hold demonstration and promotion activities of mechanization technologies and equipment for hills and mountains, and select and promote a batch of whole-process mechanization solutions suitable for agricultural production in hills and mountains.
- In terms of talent training. MARA will continue carrying out professional agricultural machinery operator trainings, and encourage them to actively participate in the R&D, innovation, operation service, maintenance of agricultural machinery.

The above survey result indicates that a huge market opportunity exists for small- and medium-sized agricultural machinery in hilly and mountainous area in China. AEM members can further explore this market through leveraging their technological and product advantages in this area.
5. Working Meeting Discussing Two Standard Drafts of Lifting Appliance

From July 11 to 13, 2023, SAC/TC227 (Lifting Appliance) held working meeting in Jiangsu Province to discuss two national voluntary standards: **Lifting appliances—hazard identification** (project no. 20221036-T-604), and **Cranes—Safe use—Part 5: Bridge and gantry cranes** (project no. 20221143-T-604).

More than 40 representatives participated in this meeting including standard drafting group members, industrial experts, main manufacturers, testing and inspection bodies and users etc. The secretariat hosting unit, Beijing Materials Handling Research Institute Co., Ltd., hosted the meeting. The overall framework and the main technical contents of the two standard drafts have been discussed, and some modifications have been advised. In all, the drafts have been agreed by the meeting attendees.

These two standards on lifting appliance are important for safety improvement, and are all first ones in their scope within China’s standard system. Further information of these standard is summarized as below:

- **Lifting appliances—hazard identification**
  This standard aims at guiding equipment stakeholders (e.g.: manufacturers and users) to fully recognize and identify lift appliance hazards, and solving the issues like inappropriate and incomplete identification in the process of risk assessment or hazard evaluation.
  As lifting appliance is categorized as special equipment, one of the legal bases of formulating this standard is the **Key Working Points of Special Equipment Safety and Energy-Saving Supervision In 2022** (issued by the Special Equipment Bureau of the State Administration for Market Regulation on January 26, 2022), which puts forward to “organize the formulation of identification standards for major hazard sources”. And the contents of this standard will strongly support the safety supervision and management.

- **Cranes—Safe use—Part 5: Bridge and gantry cranes**
  The formulation of this standard is to fill in the missing parts of the current standard system on the safe use of different types of cranes (the GB/T 23723 standard series) in China. Existing Chinese national standards on the topic include those for tower cranes (GB/T 23723.3-2010, identical adoption of ISO 12480-3:2005), jib cranes (GB/T 23723.4-2010, identical adoption of ISO 12480-4:2007) and a general safe use standard (GB/T 23723.1-2009, identical adoption of ISO 12480-1:1997).
  The crane standard will have official English version when it’s finally approved for implementation.
  AEM and AEM members are advised to follow-up on the progress of this standard, because there is no equivalent ISO standard for the safe use of bridge and gantry cranes yet, making this Chinese national standard a domestic formulation. In addition, once this standard is approved, it might be used as a reference or to be submitted as a proposal to the ISO/TC96 to supplement to the ISO 12480 series by the SAC/TC227 (the mirroring group of ISO/TC96, as well as ISO/TC111).

6. Association Standard Drafted on Digitalization Level Assessment for Construction Machinery
On July 20, 2023, China Construction Machinery Association (CCMA) held working meeting in Hebei Province on the drafting of association standard called *Specification for digitization level evaluation of construction machinery* (standard planning no. JH-2022-025).

The standard drafting work will be led by China Industrial Control Systems Cyber Emergency Response Team (CICS-CERT, a research academy under the Ministry of Industry and Information Technology of China), jointly with sector stakeholders including CCMA and enterprises. 25 attendees joined the meeting, representing whole machinery manufacturers, supporting enterprises, information-based companies, certification bodies and research institutes, etc. The purpose is to provide basis and method for scientific evaluation of digitization development of construction machinery. The key content of the standard will cover the indexes and grade classification of the level assessment, which were fully discussed in this working meeting, together with the framework and the technical provisions. Further work will be carried out in the future on the standard drafting.

For AEM and AEM members, the first key message delivered by the development of this association standard is that: it supports China’s overall industrial transition strategy, where intelligent manufacturing of many traditional sectors is designed and encouraged (repeatedly mentioned in several top-design policy document such as the 14th-five-year Plan), and similar standard projects may be planned in the future, even on a higher level (national or sector standard). Meanwhile, with the development of emerging technologies including but not limited to big data, cloud computing and artificial intelligence (AI), China’s construction machinery community reaches consensus that digitalization will lead to production efficiency improvement, cost reduction and enhanced equipment monitor and maintenance etc. Therefore, they have the motive and will to achieve the transition, which perfectly embedded into the national strategy. It could eventually lead to a market environment where more advanced and digitalized products and solutions are preferred in the China market, and cause a higher competition level for all construction machinery manufacturers.

**Additional info: about CICS-CERT**

*China Industrial Control Systems Cyber Emergency Response Team (CICS-CERT)* is responsible for conducting strategic research, R&D, monitoring & early-warning, assessment, emergency and industrial development related to industry information security, building up the relevant capacity, and safeguarding the security. It aims to become China’s think-tank for government policy-making and an authority to guide industry development, so as to offer policy support and safeguard for building China into a manufacturer of quality, integrating manufacturing and Internet, enhancing capacity building of industry information system, protecting key infrastructure, and facilitating the development of the information industry.
Green and Environmental Protection

7. MIIT Selects the Green Factory and Supply Chain Management Enterprises

On July 21, 2023, Ministry of Industry and Information Technology (MIIT) issued the notice on carrying out selection of “green factory, industrial park, and supply chain management enterprises” in 2023.

The selection will be based on the results of third-party assessments, and MIIT has developed specific rules for the assessment procedures and assessment bodies.

Enterprises can apply for the assessment of the “green factory” according to GB/T 36132-2018 general principles for assessment of green factory and sector-specific assessment standards. The assessment of the “green supply chain management enterprises” will be carried out in accordance with the “green supply chain management enterprises assessment index”, which has been published by MIIT earlier.

Those that have passed these assessments will be further evaluated by MIIT, and the ones with MIIT’s final approval will be granted with the “green factory”, “green industrial park”, or “green supply chain management enterprises” titles. They will also enter the List of Green Manufacturing 2023 which will be published by MIIT later this year.

Entering the list can bring the following benefits to participating enterprises:

- The enterprise’s reputation, visibility, and influence will be improved thanks to MIIT’s endorsement.
- The enterprise may pass environmental protection-related inspections in a easier way and is more likely to avoid environmental protection-related production restrictions.
- The enterprise will enjoy government subsidies which can be up to several million CNY. For example, Beijing Tongzhou district provides subsidy of up to one million for each enterprise that enters the List of Green Manufacturing.

The assessment is carried out annually, and there has been FIEs that entered the list through assessments in previous years. Therefore, it is possible for AEM members in China to participate in the selection and be granted as “green factory” or “green supply chain management enterprises”.

8. China will Reboot its Certified Emission Reduction Trading System

On July 7, 2023, Ministry of Ecology and Environment (MEE) released the draft of Administrative Measures for the Trading of Certified Greenhouse Gas (GHG) Emission Reduction (trail) (hereinafter referred to as “the Administrative Measures”) for public comments, and the deadline is August 6.

The Certified GHG Emission Reduction (CCER) refers to the GHG emission reduction in sectors and projects including but not limited to renewable energy, forestry carbon sink, methane utilization in China (the projects usually have been quantified, verified, and registered in the National Registration System for the Trading of Certified GHG Emission Reduction).
The trading of CCER, together with the trading of the Carbon Emission Allowance (CEA), is the major means for China to facilitate the participation of enterprises in emission reduction and the realization of the “carbon peak and carbon neutrality” objectives. The two trading systems complement to each other. The certified emission reduction can be used to offset the surrender of the carbon emission allowance.

The CCER trading system was first launched in 2012, but was suspended in 2017 due to multiple reasons such as inadequate trading volume, lack of regulation on participating projects.

The release of the Administrative Measures draft indicates that China will reboot the CCER trading system. By stipulating its participation criteria, methodology, filing and trading processes, together with the roles of different actors, the new regulation aims to improve the CCER trading system, enhancing its fairness, transparency, and conformity.

As products of AEM members might being used in CCER-participating projects, and with the possibility that AEM members being directly participating in CCER trading in the future, it is suggested AEM members to track the development of CCER scheme.
9. China Revising RoHS Standard for Restricted Substances Management Systems

On July 28, 2023, SAC/TC 297/SC3 (Test Methods of Hazardous Substances) issued the draft of national voluntary standard GB/T 31274 Restricted substances management systems of electrical and electronic products-Requirements (hereinafter referred to “the Standard”) to call for public comments. All stakeholders are allowed to submit comments and feedback before September 5, 2023.

GB/T 31274 is one of the standards that supports China RoHS system. It specifies the requirements of the restricted substances management system for organizations related to the production of electronic and electrical products and aims to help organizations identify the processes related to the use of restricted substances in accordance with relevant laws and regulations or customer requirements, while establishing and implementing the restricted substances management system.

The Standard is applicable to organizations of all types and sizes involved in the production of electrical and electronic products to meet their needs to establish, implement, maintain and improve a restricted substance management system in order to improve their ability to manage restricted substances and thereby reduce and/or eliminate the use of restricted substances.

For AEM and AEM members, it is worth noting that China’s RoHS-related management system certification are mostly based on IECQ QC080000:2017 IEC Quality Assessment System for Electronic Components (IECQ System) - Hazardous Substance Process Management (HSPM) System Requirements with localized adjustment in accordance with domestic experience and practice. And other key takeaways of this round of revision include:

- Changes in terms and definitions: adding 6 new terms and deleting “restricted substance control”.
- Supplementing some notes to further explain stipulations, and specifying more details for the management system based on the corporate practices in the past few years.

Modifying the Annex B in the 2014 version: provided the factors that can be utilized to identify and assess the risks of restricted substances in products and the risks introduced by restricted substances in the process.
10. China Revises the ICV Standard System

On 26 July 2023, China’s Ministry of Industry and Information Technology (MIIT) and Standardization Administration of China (SAC) jointly issued the Guidelines for the Construction of the National Internet of Vehicles Industry Standard System (Intelligent and Connected Vehicles) (2023 Version) – hereinafter referred to as the Guidelines. The Guidelines are an important part of the national Internet of Vehicles (IoV) standard systems.

The Guidelines consist of five chapters: general requirements, general principles, the standard system, organization and implementation requirements, and annexes. The standard system outlined in the Guidelines has been significantly enriched and streamlined compared to that of the previous 2018 version of the Guidelines. Specifically, the original standard system only had two levels of categories, while the new version introduces a further division of several items under “Generic Specifications” and “Product and Technology Applications” – effectively forming a third level of category (see as Figure 1). Moreover, the new version deletes the “Relevant Standards” in the first level of category, as well as the two other items previously listed under that category: communication protocols, and the interface.

![ICV Standard System (2023 Version)](image-url)
According to its annexes, a total of 53 standards have been either released, reported for approval or recently initiated as standardization projects. Among them, 92% are national standards, while the remaining are sectoral standards; 17 standards consist of conversions from international standards (i.e. ISO standards and UN standards). Furthermore, the Guidelines present an innovative element, namely a clear indication of the standardization priorities for each category. For instance, for automobile chips, the standardization priorities include:

- Automobile safety chip technical requirements and testing methods;
- Automobile intelligent driving computing chip technical requirements and testing methods;
- Automobile intelligent cockpit computing chip technical requirements and testing methods, etc.

As for the next steps, MIIT will:

- Promote the construction of the intelligent and connected vehicle standard system.
- Continue to guide the Intelligent Connected Vehicle Sub-standard Committee of the National Automobile Standards Committee (SAC/TC114/SC34) and relevant units.
- Focus on key standardization areas and priorities, such as functional safety, cybersecurity, and operating systems.
- Participate in the coordination and formulation of international standards and regulations.
- Promote the implementation of key standards.
- Accelerate the integrated development of new energy vehicles with information and communication, intelligent transportation, and smart cities technologies.
- Leverage the guiding role of standards to promote the high-quality development of China’s intelligent connected automobile industry.

11. China Expands the Scope of Mandatory Cybersecurity Products Certification

On July 3, 2023, the Cyberspace Administration of China (CAC), the MIIT, the Ministry of Public Security (MPS), and the Certification and Accreditation Administration of China (CNCA) jointly released the 2023 edition of the Catalogue of Critical Network Equipment and Specialized Cybersecurity Products (hereinafter referred to as the “Catalogue”). The 2017 edition of Catalogue identified 4 critical network equipment and 11 specialized cybersecurity products for the CNESCP certification, and specified their minimum technical parameters for compliance. The 2023 Catalogue, instead, removes the minimum technical parameters of the specialized cybersecurity products, and adds 20 new specialized cybersecurity products into it. Consequently, the 2023 Catalogue now contains 4 critical network equipment and 34 specialized cybersecurity products.

The full list is provided in the list below. It is advised AEM members to study if any of these cybersecurity products shall be certified, or meet the requirements of security inspection prior to being sold or provided to the Chinese market.

The 2017 edition of Catalogue identified 4 critical network equipment and 11 specialized cybersecurity products for the CNESCP certification, and specified their minimum technical parameters for compliance. The 2023 edition of the Catalogue, instead, removes the minimum technical parameters of the specialized cybersecurity products, and adds 20 new specialized cybersecurity products into it. Consequently, the 2023 Catalogue now contains 4 critical network equipment and 34 specialized cybersecurity products.

The full list is provided in the list below. It is advised AEM members to study if any of these
products is used in their machinery management systems.

<table>
<thead>
<tr>
<th>No.</th>
<th>Categories</th>
<th>Categories of Equipment /Products</th>
<th>Product Scope or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Critical Network Equipment</td>
<td>Routers</td>
<td>Throughput of the Whole System (Bi-direction) ≥ 12 Tbps; Routing Table Capacity of the Whole System ≥ 550,000 pieces</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Switches</td>
<td>Throughput of the Whole System ≥ 30 Tbps; Packet Forwarding Rate of the Whole System ≥ 10 Gbps</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Servers (Rack)</td>
<td>Number of CPUs ≥ 8; Number of Cores of a Single CPU ≥ 14; Memory Capacity ≥ 256GB</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Programmable Logic Controllers (PLC Equipment)</td>
<td>Controller Instruction Execution Time ≤ 0.08 ms</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Data Backup and Recovery Products</td>
<td>Products that can back up and restore the data of an information system and manage the backup and recovery process. Products that analyze data flow and implement access control and security protection functions.</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Firewalls</td>
<td>Products that use network packets as data source, and monitor and analyze all packets of protected network nodes to find abnormal behaviors.</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Intrusion Detection Systems (IDS)</td>
<td>Products that are deployed on a network in the form of a bridge or gateway, detect network behaviors with intrusion characteristics by analyzing network traffic, and intercept them before they pass into the protected network.</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Intrusion Prevention Systems (IPS)</td>
<td>Products that establish security control points and provide controllable access services between different network terminals and network security domains.</td>
</tr>
<tr>
<td>8</td>
<td>Specialized Cybersecurity Products</td>
<td>Network and Terminal Isolation Products</td>
<td>Software or combinations of software and hardware that can identify and process spams, including but not limited to anti-spam gateways, anti-spam email systems, anti-spam software installed on mail servers, and anti-spam products integrated with mail servers.</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Secure Database Systems</td>
<td>Database systems that follow a complete set of system security policies from all stages of system design, implementation, use and management, with the aim to ensure data security at the database level.</td>
</tr>
<tr>
<td>No.</td>
<td>Categories</td>
<td>Categories of Equipment /Products</td>
<td>Product Scope or Description</td>
</tr>
<tr>
<td>-----</td>
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<td>------------------------------</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>Website Data Recovery Products</td>
<td>Products that provide website data monitoring, anti-tampering, and realize data backup and recovery and other security functions.</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>Virtual Private Network products</td>
<td>Products that establish dedicated secure transmission channels on a public communication network such as Internet.</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>Anti-virus Gateway</td>
<td>Products that are deployed between networks, analyze the communication between the network layers and the application layers, and protect against viruses on the network based on predefined filtering rules and protection policies.</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>Unified Threat Management Products (UTM)</td>
<td>Gateway devices or systems that adopt a unified security policy and integrate multiple security functions to comprehensively defend against security threats to networks and application systems.</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>Virus Control Products</td>
<td>Products that are used to detect or prevent the spread of malicious code as well as the tampering, theft and destruction of the applications of host operating system and user files.</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>Secure Operating System</td>
<td>Operating systems that follow a complete set of security policies covering system design, implementation, and use, with the purpose of ensuring system security at the operating system level.</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>Secure Network Storage</td>
<td>Dedicated storage devices connected to a server over a network based on different protocols.</td>
</tr>
<tr>
<td>21</td>
<td></td>
<td>Public Key Infrastructure</td>
<td>An infrastructure that supports public key management and provides authentication, encryption, integrity, and non-repudiation services.</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td>Cybersecurity Situation Awareness Products</td>
<td>Products that collect network traffic, asset information, logs, vulnerability information, alarm information, threat information and other data, analyze and process network behaviors, user behaviors, and other factors, grasp network security state, predict network security trend, and conduct display, monitoring, and early warning.</td>
</tr>
<tr>
<td>23</td>
<td></td>
<td>Secure Management Platforms of Information System</td>
<td>Platforms that implement unified management of the security policy of information system as well as the security mechanisms in the secure computing environment, security area boundary and secure communication network that execute the policy.</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td>Network Flow Control Products</td>
<td>Traffic management systems that monitor data flow and control bandwidth on the network in security domains.</td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>Load Balancing Products</td>
<td>Products that provide functions of link load balancing, server load balancing, network traffic optimization, intelligent processing, etc.</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td>Information Filtering Products</td>
<td>Products that screen and control text, pictures and other network information.</td>
</tr>
<tr>
<td>No.</td>
<td>Categories</td>
<td>Categories of Equipment /Products</td>
<td>Product Scope or Description</td>
</tr>
<tr>
<td>-----</td>
<td>------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>27</td>
<td>Denial-of-Service Attacks Resistance Products</td>
<td>Products used to identify and intercept denial of service attacks and ensure system availability.</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Terminal Access Control Products</td>
<td>Products that provide access control function for terminals accessing network</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>USB Mobile Storage Media Management Systems</td>
<td>Products that implement management measures like identity authentication, access control, and audit, etc., to a mobile storage device, so as to realize trusted access between the mobile storage device and the host device.</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>File Encryption Products</td>
<td>Products used to prevent attackers from stealing data stored in files and other forms, to ensure the security of stored data.</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Data Breach Prevention Products</td>
<td>Products that conduct control and audit for the main output channels of sensitive information in security domains to prevent unauthorized disclosure of sensitive information in the security domains.</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Data Destruction Software Products</td>
<td>Products that use information technology to eliminate logic underlying data to completely destroy the data carried by a storage media</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Security Configuration Check Products</td>
<td>Products that realize security configuration and compliance analysis for assets based on security configuration requirements, and generate security configuration suggestions and compliance reports.</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Operation and Maintenance Security Management Products</td>
<td>Products that implement single sign-on, centralized authorization, centralized management, and audit during the maintenance of important assets of information system</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Log Analysis Product</td>
<td>Security products that collect log data from information systems, while storing and analyzing data centrally.</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Identity Authentication Product</td>
<td>Products that require users to provide identification information based on electronic information or biological information, and confirm the identity of the users.</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Terminal Security Monitoring Products</td>
<td>Products that monitor and control the security of a terminal, detect and block unauthorized use of the system and network resources</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Electronic Document Security Management Products</td>
<td>Products that produce secure electronic documents or convert electronic documents to secure electronic documents, and manage, monitor, audit them in a unified manner.</td>
<td></td>
</tr>
</tbody>
</table>

In early July, the National Technical Committee of Auto Standardization (NTCAS, SAC/TC114) issued draft of national standard called Test methods for durability of fuel cell engine and its key components (hereinafter referred to as “the Standard”). The draft is now calling for comments and opinion soliciting period will end on August 27, 2023.

It is a national voluntary standard that specifies durability test methods for fuel cell engines, fuel cell stacks, membrane electrodes, air compressors, and hydrogen circulating pumps. The Standard applies to automotive proton exchange membrane fuel cell engines and key components.

The draft contains a total of nine chapters and seven annexes. The main contents covering the cycle condition and testing procedures for the fuel cell engines, together with the reliability testing methods for the key components.

No international standard, laws or regulations are adopted for the formulation of this standard. Therefore, foreign stakeholders may need to further check the technical requirements and take further actions to ensure compliance.

For AEM and AEM members, it is worth noting that this is the first standard in China to fill in the blank of the reliability requirements on fuel cell engines. It aims at clarifying technical requirements, test methods and judgment conditions for engine durability test so that the R&D time frame and testing cost of manufacturers would be reduced. More standards regarding fuel cells are likely to be formulated to support its development and implementation. It may also be a reference in terms of developing similar standards for non-road machinery.
BESTAO Translation

13. **English Translation – Regulations of the People’s Republic of China on Certification and Accreditation (draft for Comments)**

Price: USD 120.00  
Page: 19  
Number of Words: 10197

On July 13, 2023, the State Administration for Market Regulation issued the draft of Regulations of the People’s Republic of China on Certification and Accreditation to call for public comments. The call-for-comment period ends on July 29, 2023.

BESTAO has translated the full text into English for the convenience of global stakeholders.

Regulations of the People's Republic of China on Certification and Accreditation (Call for Comments)

With 19 pages and 10197 English words, file available with preview as below.

For preview or purchase of this document, please visit:  
https://www.bestao-consulting.com/detail?id=1494&status=bestao_library


Price: USD 80.00 
Page: 30  
Number of Words: 8958

Mandatory national standard "GB 19517-2023 National technical specification for the safety of electric equipment" was released in May 2023 and has come into force in June 2024. GB 19517 is so-called China’s "Low Voltage Directive". It lays down the market access requirements for almost all low voltage electric equipment. Any product that doesn't follow the requirements of this standard will face huge compliance risk in China, including hefty fine or denied access. GB 19517-2023 stipulates the basic safety requirements for various types of electrical equipment intended for indoor and outdoor use, including handheld, portable, and fixed equipment, with an AC rated voltage of 1000V (1140V) or below and a DC rated voltage of 1500V or below.

For preview or purchase of this document, please visit:  
https://www.bestao-consulting.com/detail?id=1306&status=bestao_library

15. **English Translation - CNCA-C09-01 2023 CCC Implementation Rules - Electronic Products and Safety Accessories**

Price: USD 98.00  
Page: 17  
Number of Words: 3720

Releasing Unit: The Certification and Accreditation Administration of China (CNCA)

For preview or purchase of this document, please visit: [https://www.bestao-consulting.com/detail?id=1502&status=bestao_library](https://www.bestao-consulting.com/detail?id=1502&status=bestao_library)
BESTAO policy review to this Issue:

- Policy Briefing - Full Standard List of Key Agricultural Machinery TCs in China

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. China’s policy documents on the new energy development of non-road machinery
2. Latest updates of TC334 working meeting
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:

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