VDA German Association of the Automotive Industry

Monthly Report

Topics from China; Dec. 2023

Content

Policy and Regulation

MoT: Guideline for Transportation Safety Services for Autonomous Vehicles (Trial)

On December 5th, the Ministry of Transport (MoT) of China officially released the "Guideline for Transportation Safety Services for Autonomous Vehicles (Trial)" (hereafter “Guideline”). This release follows the draft version that was open for public comment in August 2022. The Guideline aims to adapt to the development trend of automated driving technology while encouraging and regulating the application of autonomous vehicles in transportation services, ensuring safety and compliance with laws and regulations.

The **application scope** is specified to the autonomous vehicles that are:

- operated on publicly accessible roadways, e.g., expressway, urban road, etc.,
- engaged in the road transport systems, e.g., urban bus, taxi, and other passenger or freight transport, and
- capable of performing all the dynamic driving tasks (DDT) under the operational design condition (ODC), including conditionally automated driving, highly automated driving and fully automated driving, namely the GB/T40429-2021 defined level 3 and above (L3, L4 & L5).

The Guideline explicitly encourages **the earlier application in some scenarios** with relatively simpler traffic conditions, including:

- the express urban bus system running within the closed lane,
- the autonomous taxi in limited areas of controllable risks,
- the freight transportation, excluding dangerous goods, of the point-to-point routine on the arterial road, etc.

The Guideline also proposes to **stipulate the primary requirements** to the service operator, vehicle, and personnel:

- The operator shall be legally registered, licensed, and qualified.
- The vehicle shall comply with the relevant technical standards and operation regulations, and must be legally registered, licensed, and insured. The requirement for third-party liability insurance of no less than 5 million RMB has been removed compared to the "draft for comment" version.
- The L3 and L4 vehicles shall be seated with a driver or safety supervisor onboard and the L5 vehicles, if approved by local authorities, can be equipped with the remote safety supervisor and the ratio of personnel to vehicles shall not be less than 1:3.
- The safety supervisor shall be trained with the qualification, knowledge, and related ability to deal with a potential emergency.

Besides, some other systems are required from the administrative perspective to ensure operation safety, especially by mentioning the **vehicle dynamic monitoring system**, which is to record, store, and transmit the related data concerning vehicle operation to the transportation authority. The data is specified to cover 90 seconds before the event of an accident or automated driving system failure and to at least record the follow 10 items on vehicle ID, driving mode, location, velocity, environment awareness and response status, lighting, vision, HMI, remote command, and failures if any – this is deemed as a rather stringent technical requirement for the vehicle data recording system, and much above the thresholds of related international and national standards, according to the VDA.

This represents another significant advancement in the national framework for promoting driving automation. It is widely believed that the transportation scenarios as listed above, with limited corner cases, could be more feasible and expectable for the application of autonomous driving technologies. The Guidelines issued by the MoT mark a positive start to government's efforts to accelerate the commercialization of the ICV.

CAC: Administrative Measures for Cybersecurity Incident Reporting _ Draft for Comment

On December 8th, the Cyberspace Administration of China (CAC) issued a new set of draft measures based on China's Cybersecurity Law published in 2017, titled "Administrative Measures for Cybersecurity Incident Reporting" (hereafter "draft measures"), to solicit public comments until January 7th, 2024, which is to outline requirements for companies to report network security incidents and therefore to decrease the harm and damage caused by security incidents and maintain national cybersecurity.

Scope: The draft measures, if passed in the current form, require that any network operators that builds or operates networks or provides online services are required to initiate an emergency plan at the earliest possible time, and further to report the cyber incident that threatens network security, mostly to government institutions and infrastructure, such as government and party websites and utility infrastructure, as well as any incidents that can cause wider economic damage or harm to the general population.

Incident Classification: The draft measures have been released along with an attachment "Cybersecurity Incident Classification Guide", which provides the definitions and parameters for the classification of a security incident into three high-risk categories: a "significant" incident, "serious" incident", or "very serious" incident. Broadly, the situations in which an incident is considered significant, serious, or very serious are:

- Where an important network and information system suffers system losses, causing widespread system paralysis and loss of business processing capabilities.
- Where national secrets, important sensitive information, and important data are lost or stolen, tampered with, or counterfeited, posing a threat to national security and social stability.
- Other network security incidents pose threats and have particularly serious impacts on national security, social order, the economy, and public interests.

Reporting Requirements: The incident reporting requirements defined by the draft measures are also based on threat level:

- Security incidents that are classified as "major", "serious", or "very serious" as outlined in the table should be reported **within one hour**.

- If the implicated network or system belongs to a department of a central or state agency, or one of the companies and institutions that are under their management, the operator must first report the incident to the cybersecurity and information work organization within that department.
- If the implicated network or system is critical information infrastructure (CII), the operators must report the incident to the protection work departments and public security organs.

Reporting Format: Operators can report incidents in accordance with the Cybersecurity Incident Information Reporting Form attached. The following information must be included in the form:

- The name of the entity and basic information about the facilities, systems, and platforms in which the incident occurred.
- The time and place, the type of incident, the impact and harm caused, and any measures taken and their effects. For ransomware attacks, the ransom amount, method, date, and other information on the ransom's payment should also be included.
- Information on how the situation is developing and possible further impacts and harms.
- Preliminary analysis of the cause of the incident.
- Clues that can assist with further investigation and analysis.
- Further response measures that will be taken and requests for support.
- The protection conditions at the incident site.
- Any other information or situations that should be reported.

Post Reporting: After the incident has been handled, the operator must conduct a comprehensive analysis and summary of the cause of the incident, covering various matters such as the emergency response measures adopted, threats posed, responsibilities, the situation regarding rectification, lessons learned and so on. This report must be submitted to the same authority to which the incident was originally reported **within five working days**.

The draft measures have similar limitations to other cybersecurity and data protection regulations issued in recent years, most notably a lack of clear definitions for key terms and unclear parameters, according to the VDA and some members. Besides, the timeliness on reporting "within one hour" is widely regarded as rather challenging for the non-governmental or non-CII operators.

MIIT: Announcement on Adjustment of Technical Requirements for Vehicle Purchase Tax Reduction and Exemption of New Energy Vehicle Products

On December 11th, China's Ministry of Industry and Information Technology (MIIT), jointly with the Ministry of Finance (MOF) and the State Taxation Administration (STA), officially released an Announcement on Adjustment of Technical Requirements for Vehicle Purchase Tax Reduction and Exemption of New Energy Vehicle (NEV) Products (hereafter, the "Announcement").

The Announcement is proposed to update the technical requirements for NEVs eligible for purchase tax reduction and exemption, following the earlier preferential policy from the 3 ministries - in June 2023, China has extended its tax exemption policy for NEVs until 2027, showcasing the commitment to promoting the electric vehicle (EV) industry. The extension provided stability and support for consumers and manufacturers, besides encouraging foreign investment prospects in electric mobility.

The requirements of existing NEV technical indicators are being raised, from the EV performance, EV range, the quality of power battery system, to energy consumption. Taking the passenger car for example, if purchase tax reduction and exemption is targeted, the updated requirements include:

- The EV range of pure electric passenger cars shall not be less than 200 kilometers, the maximum speed in 30 minutes shall not be less than 100 km/h, and the energy density of their power battery system shall not be less than 125 Wh/kg.
- In case of the low temperature scenario tested according to GB/T18386.1-2021, with the range attenuation rate does not exceed 35%, the battery system energy density shall not be less than 95Wh/kg, and the driving range should not be less than 120km.
- Target value (Y) of power consumption per 100 km, curb weight wise (m, kg) shall fulfil: $m \leq 1000$, $Y \leq 0.0112 \times m + 0.4$; $1000 < m \leq 1600$, $Y \leq 0.0078 \times m + 3.8$; $m > 1600$, $Y \leq 0.0048 \times m + 8.60$.
- For plug-in hybrid passenger vehicles, the range powered by electricity shall not be less than 43 kilometers. Their fuel consumption, compared to the limits from GB19578, in the charge sustaining (CS) mode shall be less than 60% when $m < 2510$kg and less than 65% when $m \geq 2510$kg, and in the charge depleting (CD) mode, shall be less than 125% when $m < 2510$kg and less than 130% when $m \geq 2510$kg.

The timetable for implementation is stated as:

- From January 1st, 2024, models newly applying for entry into the "NEV Catalogue for Purchase Tax Reduction and Exemption" shall fulfill the new technical requirements from the Announcement, where especially the models with battery swap mode shall be tested according to GB/T40032 and their manufacturers shall provide the proof material that guarantees the electricity changing service.
- From June 1st, 2024, all models that do not meet the new technical requirements will be withdrawn from "NEV Catalogue for Purchase Tax Reduction and Exemption".
- During the transition period between January 1 and May 31st, 2024, the models were listed in the "NEV Catalogue for Purchase Tax Exemption" that are still effective by December 31st, 2023, will be automatically continued into the "NEV Catalogue for Purchase Tax Reduction and Exemption" on condition that the related models shall supplement relevant certification documents and supportive materials upon the Announcement.

Besides, the Announcement also stresses that enterprises should establish and improve the safety management mechanism, strengthen the ability of product quality assurance, and ensure the safety of NEV products. For the occurrence of safety accidents, concealment and failure to report, the tax reduction and exemption qualification may be cancelled.

The Announcement is published to raise the technical threshold for NEVs eligible for purchase tax reduction and exemption, while the forecast from the Authority shows that over 90% of NEV models in China will continue to enjoy purchase tax exemption under new tech requirements.

MIIT: Measures for Administration of Comprehensive Utilization of Power Batteries for New Energy Vehicles _ Draft for Comment

On December 15th, China's Ministry of Industry and Information Technology (MIIT) released a set of draft "Measures for Administration of Comprehensive Utilization of Power Batteries for New Energy Vehicles (NEV)" (hereafter "draft Measures"), to solicit public comments until January 15th, 2024.

The draft Measures in general consist of 43 Articles divided into 8 Chapters: General Provisions (I); Responsibilities for Research, Design, Production and Operation (II); Responsibilities for Scrapping and Transportation(III); Requirements on Echelon Utilization and Recycling (IV); Requirements on Traceability(V); Supervision and Administration (VI); Legal Liabilities(VII); Supplementary Provisions(VIII), providing the comprehensive administrative requirements from the lifecycle perspective of power batteries for NEVs.

The overall responsibilities are by principle divided into the following:

- Vehicle manufacturing enterprises are responsible for the recovery of vehicle fitted power batteries.
- Battery production enterprises are responsible for the recovery of power batteries directly sold to the market, such as battery leasing.
- Battery echelon utilization enterprises are responsible for the recovery of the products from echelon utilization.
- Battery leasing operators, motor vehicle maintenance operators, scrapped motor vehicles' recycling and dismantling enterprises, recycling service outlets, recycling operators, comprehensive utilization enterprises, and other units generating waste and used power batteries should fulfill corresponding responsibilities at each stage, ensuring the standardized utilization and environmentally friendly processing of waste and used power batteries.

The draft Measures also elaborate on administrative and technical requirements for specific areas by the reference of the following regulations and standards:

- Provisions on Administration of Investments in Automotive Industry
- Administrative Measures for the Disclosure of Technical Information on Automobile Maintenance
- Implementation Rules of Administrative Measures for End-of-Life Vehicles Recovery
- Administrative Measures for Legal Disclosure of Enterprise Environmental Information
- MIIT Catalogue of Road Motor Vehicle Production Enterprises and Products
- China Compulsory Certification for Imported Motor Vehicles
- GB 12268 List of dangerous goods
- GB 12463 General specifications for transport packages of dangerous goods

- GB 19432 Safety code for inspection of large packaging for dangerous goods
- GB/T 33598.2 Recycling of traction battery used in electric vehicle - Recycling - Part 2: Materials recycling requirements
- GB/T 34014 Coding regulation for automotive traction battery
- GB/T 38698.2 Recovery of traction battery used in electric vehicle - Management specification - Part 2: Take-back service network

The draft Measures, if passed in the current form, will replace the following existing regulations and measures:

- Interim Administrative Measures for Recovery of Power Batteries for New Energy Vehicles (MIIT [2018] No.43)
- Interim Provisions for Traceability Administration of Power Batteries Recovery for New Energy Vehicles (MIIT [2018] No.35)
- Guidelines for Construction and Operation of Take-back Service Network for Power Batteries for New Energy Vehicles (MIIT [2019] No.46)
- Administrative Measures for Echelon Utilization of Power Batteries for New Energy Vehicles (MIIT [2021] No.114)

China's NEV industry has entered a new stage of rapid growth with the battery industry initially taking shape. It is strategically important for the country to have stable battery resources and a sound battery recovering system. The draft Measures, from a very comprehensive picture, is to strengthen the management of the recycling and utilization of the power battery for NEVs, promote the comprehensive utilization of resources, protect the environment and human health, and boost the sustainable and high-quality development of the NEV industry.

MIIT: Contingency Plan for Data Security Incidents in the Field of Industry and Information Technology (Trial) _ Draft for Comment

On December 15th, China's Ministry of Industry and Information Technology (MIIT) released a new document titled "Contingency Plans for Data Security Incidents in the Field of Industry and Information Technology (Trial)" (hereafter "draft Plan"), to solicit public comments until January 15th, 2024.

The draft Plan proposes a four-tier (especially grave, grave, relatively grave, and average), color-coded (red, orange, yellow, and blue) system depending on the degree of harm inflicted upon national security, a company's online and information network, or the running of the economy, where the incidents that involve following occasions will be classed as "especially grave," to which a red warning must be issued:

- Incidents involving "important data" or "core data"
- Incidents involving industry data which cause the interruption of important infrastructure systems lasting more than 24 hours
- Losses surpassing 1 billion yuan ($141 million)
- Affecting the personal information of over 100 million people or the "sensitive" information of over 10 million people

The draft Plan also demands that in response to red and orange warnings, the involved companies and relevant local regulatory authorities must establish a **24-hour duty roster** to address the incident, and MIIT must be notified of the data breach **within ten minutes** of the incident happening, among other measures.

The draft Plan is to further detail and implement the relevant requirements from "Data Security Law", "Cybersecurity Law" "Interim Administrative Measures for Data Security in the Field of Industry and Information Technology", etc., laying out how local governments and companies should assess and respond to incidents, which is regarded as a critical part of data security supervision and protection in the field of industry and information technology.

MIIT: Notice of Carrying Out Pilot Projects on Cybersecurity Insurance Services

On December 21st, China's Ministry of Industry and Information Technology (MIIT) issued a Notice of Carrying Out Pilot Projects on Cybersecurity Insurance Services, aiming at promoting enterprises to enhance their capabilities in responding to cybersecurity risks, establishing the process and

mechanisms for cybersecurity insurance, and accelerating the development of new formats for cybersecurity services.

The Notice, regarding the field of Internet of Vehicles (IoV) and Intelligent and Connect Vehicle (ICV), especially proposes:

- **Scope:** The pilot is accessible to whole vehicle manufacturers, vehicle electronic system manufacturers, electronic component enterprises, and ICV operation enterprises, among other related companies.
- **Application Scenarios:** The project will focus on risky scenarios such as production line operation failures due to network attacks, system design defects, and improper operation, as well as leakage of sensitive vehicle design data, etc.
- **Object of Insurance:** The insurance coverage will mainly include compensation for vehicle owners, passengers, and third parties for their claims and losses, data asset reset costs, hardware improvement expenses, business interruption losses, and emergency response costs.

The pilot on cybersecurity insurance services is regarded as a pivotal initiative to promote the development of more diversified types of insurance services in new areas and on innovative technologies, to meet the different needs of risk management, as well as to drive the digital transformation of the country's small and medium-sized enterprises.

MIIT: Notice on Parallel Management of Passenger Car Corporate Average Fuel Consumption and New Energy Vehicle Credit of 2024-2025

On December 28th, China's Ministry of Industry and Information Technology (MIIT) issued a Notice on matters of concern that are tightly related to the implementation of Parallel Management of Passenger Car Corporate Average Fuel Consumption (CAFC) and New Energy Vehicle (NEV) Credit of 2024-2025:

- The Notice, first and foremost, confirms that the NEV assessment ratio is set as 28% and 38% respectively for 2024 and 2025.
- For domestic passenger car production enterprises with an annual production of less than 2,000 vehicles and independent production, R&D, and operation, and imported passenger car enterprises with the import volume of less than 2000 vehicles: if their CAFC decreases by 4% from the previous year, the required target value will be relaxed by 60%; if their CAFC decreases less than 4% but more than 2%, the threshold will be relaxed by 30%.
- When the enterprise's NEV credit hits its target ratio, their "low fuel consumption passenger vehicle" will be counted as 0.2 of its volume.
- The off-cycle technologies (OCT) including the "brake energy recovery system" and "high-efficiency automotive air conditioner", if standard fit, will be calculated for the CAFC.

The detailed accounting and evaluation methods for OCTs are specified from an attachment with the reference of the following technical standards:

- GB/T 40711.4 Off-cycle technology/device energy saving effects evaluation methods for passenger cars - Part 4: Regenerative braking system
- GB/T 40711.3 Off-cycle technology/device energy saving effects evaluation methods for passenger cars - Part 3: Automotive air conditioner

It's also stated that further consideration of other OCTs besides the above two will be up to the following policy and regulation in the future.

Standardization

Standard Projects for Approval

In December, SAC released the following standard projects for approval publicity:

NO.	Title	Publicity date	Deadline for comments	Note
1	GB/T XXXX-xxxx General technical requirements of electronic restraining devices for child occupants of power-driven vehicles	2023-12-06	2024-01-05	

Standard Drafts for Public Comments

In December, CATARC released the following drafts of the standard for public comments:

NO.	Title	Publicity date	Deadline for comments	Note
1	GB/T 12540-xxxx Minimum turning circle diameter, minimum turning clearance circle diameter and out value test method for motor vehicles and combination of vehicles	2023-12-01	2024-01-30	To replace GB/T 12540-2009
2	QC/T XXX-xxxx Special requirements for the heavy commercial vehicle and combination vehicles fitted with lift axle	2023-12-01	2024-01-30	
3	QC/T XXX-xxxx Method for judging spring effect of commercial vehicle equipped with air suspension	2023-12-01	2024-01-30	
4	QC/T XXX-xxxx Hydrogen injector for fuel cell system	2023-12-28	2024-02-07	
5	GB/T 15704-202X Road vehicles-Light alloy wheels-Impact test procedure	2023-12-29	2024-02-27	To replace GB/T 15704-2012
6	GB/T XXXX-xxxx Technical requirements and test methods for onboard positioning system - Part 1: Satellite positioning	2023-12-29	2024-02-08	
7	QC/T XXX-xxxx Fuel cell electric vehicles - Fuelling communication protocol	2023-12-29	2024-02-08	

CATARC: SAC/TC114/SC34 (ICV Sub-Committee) Standard examination meeting held in Beijing

On December 14th and 15th, the SAC/TC114/SC34 standard examination meeting was held in Beijing. This gathering brought together experts from member and observer companies of SC 34, incl. test institutions, research centers, universities, and OEMs. The primary objective of this meeting was to examine two recommended standards: one related to operational design condition (ODC) and the other focused on LTE-V2X direct communication. Both standards have passed the examination and will proceed to the next stage.

Officials from China's Ministry of Industry and Information Technology (MIIT) and the State Administration for Market Regulation (SAMR) also attended the meeting and delivered speeches. MIIT is considering a pilot program on road tests for vehicle-road-cloud integration technology, while SAMR suggested deeper cooperation with international organizations like VDA, JAMA, and ACEA and making efforts to promote Chinese standards to become international standards.

More details about two recommended standards:

GB/T XXXX-xxxx: Intelligent and connected vehicles- Operational design condition for automated driving systems

The ODC standard is a "dictionary" standard that defines the essential requirements and fundamental elements of the ODC for automated driving systems. This standard establishes a general framework for ODC design principles and includes numerous ODC examples for user reference. In general, ODC is a set of conditions and requirements defined by the manufacturer as prerequisites for the operation of the ICV system. Autonomous driving systems can only operate safely if all conditions, such as ODD (Operational Design Domain), driver and passenger status, and vehicle status, are met. In other words, if any of these prerequisites are not met, the autonomous driving system may be unable to start or may disengage.

GB/T XXXX-xxxx: Technical requirement and test methods of vehicular communication systems based on LET-V2X direct communication

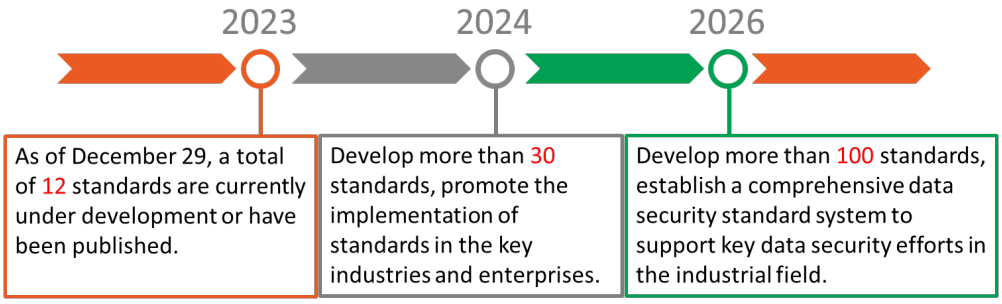
The LTE-V2X standard provides a technical requirement and test methods for vehicular communication systems based on LTE-V2X technology. Through this technology, vehicles can achieve a real-time information exchange with external entities such as other vehicles, roadside infrastructure, and vulnerable road users. In general, compared with 5G-V2X, due to the high cost of 5G communication technology and the relatively low deployment rate of 5G base stations, LTE-V2X is likely to remain the mainstream communication protocol for vehicle-road-cloud integration for a considerable period.

MIIT: Guide on Construction of National Standard System for Data Security in the Industrial Field

On December 29th, China's Ministry of Industry and Information Technology (MIIT) issued the "Guide on Construction of National Standard System for Data Security", providing a phased target timeline and framework instructions for developing data security standards.

The Guide is founded on two key documents: "China's Data Security Law" which was implemented in September 2021 and "Measures for Data Security Management in the Field of Industry and Information Technology" which was issued by MIIT in December 2022. It aims to fully implement these laws and regulations while also providing standardization support for the digital transformation of the industrial sector.

The Guide defines a phased development target by 2026:



The Guide also provides a framework instruction for the industry by dividing the data security standard system into 6 sub-systems:

- **Basic common standards** are used to define industrial data security terminology, providing a foundation for the development of various standards.
- **Security management standards** are used for conducting data security risk monitoring and emergency response, data processing security, and personnel management, providing security management measures covering the entire data lifecycle.
- **Technical production standards** include data classification, data security protection, data behavior control, data sharing security technology standards, and establishing a technical support system for data security in the industrial field.
- **Safety assessment and industry evaluation standards** are used to support industrial data security assessment, providing standardized criteria for relevant data security assessments and industrial evaluations.
- **Emerging integration field standards** aim to solve data security issues in key areas, including the data security requirement for smart manufacturing and industrial internet.
- **Industrial sector-specific standards** are tailored to the security requirements of key industrial sectors and domains, formulating industry-specific data security management and technical standard specifications.

For the automotive industry, technology innovations have consistently been evolving towards intelligent and connected directions, and data security remains a critical and ongoing concern within the industry. The establishment and completion of the data security standard system will strongly support the adoption of new technologies such as Vehicle-to-Everything (V2X) communications.

Research Report on Standardization Requirements for Intelligent Cockpit published

Endorsed by German Federal Ministry for Economic Affairs and Climate Action (BMWK), China's Ministry of Industry and Information Technology (MIIT), and the Standardization Administration of China (SAC), the project on "Research on Standardization Requirements for Intelligent Cockpit" was successfully carried out. Co-led by VDA (German Association of the Automotive Industry), NTCAS (National Technical Committee for Automotive Standardization), and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), this collaborative effort marks a significant milestone in advancing intelligent cockpit technology.

The project aimed to analyze the development and technical categories of intelligent cockpits. The resulting report, which is now available, provides valuable insights into the standardization requirements for intelligent cockpit systems, serving as a guide for industry stakeholders. By leveraging the expertise and support of influential organizations, we are contributing to the advancement of intelligent cockpit technology, fostering market growth, and shaping the future of intelligent and connected vehicles.

Implemented under the Sino-German Standardization Cooperation Commission (SGSCC), this project also received support from the Sub-working Group Intelligent and Connected Vehicles (SWG ICV). Founded in 2021, the SWG ICV facilitates coordination among international standardization bodies and promotes ISO standards to drive advancements in intelligent and connected vehicles.

To access the full report detailing the standardization requirements for intelligent cockpit systems, please click here.

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