

# CONNECTED AND AUTONOMOUS VEHICLES: IS CHINA READY?

24 May 2018 | China  
Legal Briefings

---

Regulation of autonomous vehicles in China is moving fast. The recent municipal and national road testing rules have laid the foundation for Testing Entities to test their autonomous driving systems in China. We expect to see intensive testing activities in major cities in China in the coming months and more test permits being granted. In choosing the right location for road testing, Testing Entities should ensure they are aware of the applicable regulatory regime, the nuances of the relevant road testing rules and the approach taken by local governments and Authorized Institutions in implementing those rules. The regulatory landscape in China is still developing and requires carefully navigation if companies are to be able to successfully test their vehicles.

One important question is which rules will prevail if the local rules are incompatible with the National Rules. In the months after Beijing published the first road testing regulations for autonomous vehicles (Beijing Rules) in [China](#) local governments in Shanghai, Chongqing, Shenzhen, Changchun, Changsha and Pingtan have all released their own formal or draft road testing regulations, and more are expected.

We compare the key features of the various major municipal and national road testing rules issued to date.

## 1. BACKGROUND

## 2. HIGHLIGHTS

## 3. OUR OBSERVATIONS

## 4. CONCLUSION

---

### **BACKGROUND**

The Shanghai government was the first to follow Beijing's lead with its issue of the *Administrative Measures on Road Testing for Intelligent Connected Vehicles (ICV)* on 22 February 2018 (**Shanghai Rules**). Although Shanghai lost to Beijing in the battle to be the first city in China to publish road testing rules for autonomous vehicles, it was the first to issue test permits. On 1 March 2018, the Shanghai government issued three test permits to SAIC Motor and NIO, both Shanghai-based car manufacturers and later another two permits to BMW on 14 May 2018, which becomes the first foreign-invested company to obtain testing permit. Beijing was quick to follow suit and granted its first five test permits to Baidu on 22 March 2018 and later one permit to NIO and BAIC each on 25 April 2018.

Chongqing issued its road testing rules on 11 March 2018, granting its first eight test permits to seven companies (including Baidu, GAC Group, Dongfeng Motor and Geely Auto, etc.) on 18 April 2018. Shenzhen followed, publishing its draft road testing rules on 16 March 2018 and issued its first permit to Tencent, the Shenzhen based tech-giant.

Pingtan Free Trade Zone in Fujian province also issued road testing rules for autonomous vehicles on 28 March 2018, issued its first 6 road test permits on 30 March 2018 to Baidu and King Long, a Xiamen-based bus manufacturer that is collaborating with Baidu in developing its autonomous vehicles.

Subsequently, on 3 April 2018, the Ministry of Industry and Information Technology (**MIIT**), the Ministry of Public Security (**MPS**) and the Ministry of Transport (**MOT**) published China's first national road testing rules for ICV on 3 April 2018 (**National Rules**).

Changchun, where First Automobile Works (**FAW**) is based, became the latest city to publish road testing rules (**Changchun Rules**) on 16 April 2018, and later awarded its first batch of test permits to FAW. Even Changsha, the provincial capital of Hunan, issued road testing rules on 13 April 2018.

### **HIGHLIGHTS**

#### **I. Scope of testing vehicles**

### i. *Level of automation*

According to the *Guidelines on Standards for Connected Vehicles Industry (Standards Guidelines)* proposed in China, autonomous vehicles are divided into two categories, namely "assisted control" and "automated control" and consist of five levels of automation. Given the way testing vehicles are defined in the various road testing rules, only vehicles in three levels of the automated control category are subject to road testing rules. . China has yet to officially define each level in its national standards guidelines for autonomous vehicles, but according to the previous draft of the Standards Guidelines, the automated control category is equivalent to driving automation level 3 and above as defined by the Society of Automotive Engineers, namely: conditional automation (level 3), high automation (level 4) and full automation (level 5).

### i. *Type of testing vehicles*

Currently, the National Rules and the Shanghai Rules only permit passenger vehicles and commercial vehicles to be tested, and exclude low-speed vehicles and motorcycles. However, the Beijing Rules and the Chongqing Rules permit road testing for all vehicles meeting the GB7258 safety standards for vehicle operation.

## I. **The administrative institution**

It is now clear that the MIIT, MPS and MOT and their local counterparts (**Administrative Authorities**) will be responsible for regulating road testing for autonomous vehicles across China.

The various road testing rules follow a similar administrative pattern in establishing three main bodies in each region: (i) a joint work group representing the Administrative Authorities to regulate road tests (**Joint Work Group**); (ii) an expert committee consisting of experts with relevant expertise (**Expert Committee**) responsible for evaluating road testing applications; and (iii) an authorized third-party institution (**Authorized Institution**) responsible for administering the process.

The functions of the Authorized Institution include:

- i. accepting and reviewing applications filed by applicants (**Testing Entities**) for road testing of autonomous vehicles;
- ii. monitoring and tracking road tests by establishing a monitoring platform, installing monitoring equipment on test vehicles and collecting real-time data;
- iii. checking test data recorded by monitoring equipment installed by the Testing Entities; and
- iv. suspending and cancelling road test permits and, as required, banning future applications.

The following Authorised Institutions have been appointed:

| <b>Region</b> | <b>Authorised Institution</b>  |
|---------------|--|
| Beijing       | Beijing Intelligent Vehicle Industry Innovation Centre, a limited liability company established by major autonomous vehicle technology and automotive companies in areas around Beijing with the support of Beijing government |
| Shanghai      | Shanghai Manufacturing Industry Innovation Centre (Intelligent Connected Vehicles)   |
| Chongqing     | China Automotive Engineering Researching Institute Co., Ltd. ( <b>CAERI</b> ), an automotive technology research company headquartered in Chongqing and listed on the Shanghai Stock Exchange                                  |
| Changchun     | Qiming Information Technology Company Limited, a Shenzhen-listed company, in which FAW is the major shareholder  |

The other cities are yet to announce which Authorized Institution will be appointed.

## I. Safety measures

The various road testing rules set out a series of safety measures to ensure that road tests can be conducted safely. These measures include:

**i. Monitoring and reporting:**

a. Monitoring and data recording equipment must be installed on the testing vehicles to monitor and record the following information at least for 90 seconds (60 seconds in Beijing) prior to the occurrence of any road accident or malfunction of the autonomous driving system:

- i. The driving mode, location, speed, acceleration of the vehicle (which must be transmitted on a real-time basis);
- ii. Environmental sensing and response status;
- iii. Video monitoring information;
- iv. Video displaying behaviours of test driver and his/her interaction with the vehicle and voice monitoring information;

- v. Remote control orders received by the vehicles; and
- vi. any information on vehicle faults.
- b. Reports must be filed each month with the Authorized Institution on any instances where the autonomous driving mode has been aborted, including the driving data recorded in the 30 seconds before abortion.
- c. In Beijing the driving data must be stored for no less than three years.
- ii. **Liability cover:** Each Testing Entity must obtain road accident insurance with no less than RMB 5 million cover or issue an undertaking letter to compensate an equivalent level of accident liability.
- iii. **Human interference:** The autonomous driving system must allow the test driver to take over the vehicle and have a warning system to prompt this.
- iv. **Pre-requisite testing:** The vehicle must have completed a pre-requisite set of tests in a closed testing area simulating real-road scenarios.
- v. **Designated time and area:** The road tests must be conducted in a designated area within designated hours.
- vi. **Driver qualifications:** The test driver must have a safe driving record of at least three years and a minimum of 50 hours operating the autonomous vehicle (including at least 40 hours in the above-mentioned pre-requisite testing scenarios). The National Rules and the Shanghai Rules also require that the driver has not been involved in any serious traffic law violations in the past year.
- vii. **Vehicle:** The test vehicle must satisfy the compulsory national testing standards for normal vehicles (usually the GB7258 Standard). It should be noted that the vehicle must not have been registered before, which means it will have to be a new vehicle.

## I. Road accidents

If a road accident occurs, primary liability will rest with the test driver. However, the Testing Entity will be liable for any compensation payable by the test driver. In the case of an accident, the Testing Entity must:

- i. report the incident to the Authorized Institution within 24 hours, together with data recorded at the time of the accident (save that under the National Rules and the Changchun Rules, data is only required for serious accidents); and

- ii. submit a formal report on the accident to the Authorized Institution within a certain period covering the liability, causes and analysis of the accident.

The Authorized Institution may suspend road testing of the test vehicle involved in an accident. Under the Beijing Rules and the Chongqing Rules, following serious accidents, road testing of all autonomous vehicles of a Testing Entity must be suspended. The Testing Entity must apply to the Authorized Institution to restore its testing qualification.

## **I. Localisation requirement**

Under the various road testing rules (except the Chongqing Rules), the Testing Entity must be an independent body corporate registered within the territory of China. A foreign company wishing to test autonomous vehicles in China must, therefore, do so via a Chinese subsidiary or a Chinese partner.

The Chongqing Rules, however, only require the Testing Entity to be an independent body corporate that is capable of developing or manufacturing autonomous driving technology and its products. There is no requirement for the Testing Entity to be locally incorporated or to have established a local presence.

## **OUR OBSERVATIONS**

### **I. A consistent legal framework with nuances**

As we anticipated in our previous e-bulletin, the recent road testing rules have followed the framework established by the Beijing Rules with certain nuances. Interestingly, the National Rules are substantially more similar to the Shanghai Rules, which were published earlier than the National Rules, in their form and contents, and notably both use the term intelligent and connected vehicles.

One important question is which rules will prevail if the local rules are incompatible with the National Rules. The National Rules provide that provincial and municipal governments may publish implementing rules taking into consideration local circumstances. However, it is not clear to what extent local governments may deviate from the National Rules to accommodate the local situation. Generally speaking, road testing rules published after the National Rules (such as the Changchun Rules) should not be less stringent than the National Rules, but the testing rules published before the National Rules (e.g. rules in Beijing, Shanghai and Chongqing) are likely to remain unaffected.

Another open question is whether each city will recognize the test results obtained by Testing Entities in other cities. So far, the National Rules are silent on this issue.

## **I. Choice of testing locations**

While the various road testing rules follow a similar regulatory framework, the nuances between the rules and the approaches taken by the local governments could significantly influence the choice of testing locations in China. Testing Entities should pay particular attention to the following points:

### *i. Scope of vehicles*

If the test vehicles are not passenger or commercial vehicles, the Testing Entity should consider Beijing or Chongqing as testing locations (although currently Beijing has only published testing guidelines for passenger and commercial vehicles).

### *i. Restrictions on foreign investors*

So far, only Chongqing does not require the Testing Entity to be incorporated in China. A foreign investor that does not wish to incorporate a company in China should consider Chongqing as their first choice of testing location, although it remains to be seen whether in practice Chongqing will grant a license to a foreign company without a local presence. In addition, Pingtan, which is located close to Taiwan, allows body corporate registered in Taiwan to conduct road testing,

### *i. Local protection and confidentiality*

As discussed above, the Authorized Institution administers the road testing process, from granting test permits to evaluating the testing results. The Authorized Institution will have knowledge of the testing progress and access to certain test data of Testing Entities, which may well constitute confidential information or be a commercial secret of the relevant Testing Entity. In the absence of confidentiality undertakings by the Authorised Institution, the impartiality of the Authorized Institution is a critical factor that should be taken into account in choosing the testing location.

The Authorized Institutions appointed in Beijing and Changchun are companies controlled or partly owned by local car manufactures or autonomous driving technology developers and, perhaps unsurprisingly, the first batch of permits have been issued to local companies.

However in Chongqing, CAERI, the Authorized Institution, is not controlled or partly owned by a local car manufacturer or an autonomous driving technology company. It has issued its first batch of permits to seven major car manufacturers and autonomous driving technology companies across the country.

### *i. Testing subjects and requirements*

Testing Entities should also consider whether the testing subjects and the relevant facilities and road conditions will meet their test purposes. In particular, given the requirements for closed-area testing, Testing Entities should be familiar with the regional testing subjects and standards for closed-area testing to ensure that their autonomous vehicles can pass the tests.

Moreover, the test roads in each city are also different in terms of the geographic conditions and testing scenarios and facilities (for example the availability of 'V2X' facilities), which may or may not meet the test purposes of the Testing Entities and could create difficulties for certain test vehicles. For instance, testing roads in Chongqing are likely to be hilly and may contain more complex road conditions, whilst Beijing has the longest testing roads (105 km in total) so far.

## **CONCLUSION**

The recent municipal and national road testing rules have laid the foundation for Testing Entities to test their autonomous driving systems in China. We expect to see intensive testing activities in major cities in China in the coming months and more test permits being granted. In choosing the right location for road testing, Testing Entities should ensure they are aware of the applicable regulatory regime, the nuances of the relevant road testing rules and the approach taken by local governments and Authorized Institutions in implementing those rules. The regulatory landscape in China is still developing and requires carefully navigation if companies are to be able to successfully test their vehicles.

## KEY CONTACTS

If you have any questions, or would like to know how this might affect your business, phone, or email these key contacts.



**KAREN IP**  
PARTNER, HONG  
KONG  
+852 21014035  
Karen.Ip@hsf.com



**MARK ROBINSON**  
PARTNER,  
SINGAPORE  
+65 68689808  
Mark.Robinson@hsf.com



**NANDA LAU**  
PARTNER, MAINLAND  
CHINA  
+86 21 23222117  
Nanda.Lau@hsf.com

---

## LEGAL NOTICE

The contents of this publication, current at the date of publication set out above, are for reference purposes only. They do not constitute legal advice and should not be relied upon as such. Specific legal advice about your specific circumstances should always be sought separately before taking any action based on this publication.

© Herbert Smith Freehills 2020

---

**SUBSCRIBE TO STAY UP-TO-DATE WITH LATEST THINKING, BLOGS, EVENTS, AND MORE**

Close

© HERBERT SMITH FREEHILLS LLP 2020