

【欧州】【自動車】

Road/Railways - Environmental friendly vehicles: With the start of the application of Regulation (EU) 2018/858, European Commission gains new power in the oversight of the type-approval process of motor vehicles

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【概要 : Summary】

In 2015, the Volkswagen diesel scandal sent shockwaves through especially the German automobile manufacturing industry and had drastically shown the automobile sector's partially fraudulent lack of compliance with existing regulations for emissions. In the wake of this diesel scandal, the European Commission intended to introduce a new level of EU oversight in the European vehicles' type-approval process. In September 2017, the World harmonised Light vehicle Test Procedure (WLTP) for measuring fuel consumption, CO₂ emissions, nitrogen oxides (NO_x), carbon monoxide (CO) and particulates by mass and number (PM and PN) from cars and vans was introduced. The aim is to decrease the divergence between laboratory emission test measurements and real world emissions. The Commission also introduced real driving emission (RDE) testing in the EU type-approval procedure as of 2017, and from September 2019, it also became compulsory for all new vehicles. Consequently, new car models have to pass both tests, RDE and WLTP.

Almost exactly five years after the Volkswagen emissions scandal, the application of Regulation (EU) 2018/858 started on 1 September 2020. The new

type-approval rules aim to prevent a further non-compliance with the EU's regulations on vehicles emissions during the certification process and beyond. The new regulation is expected to strengthen the European oversight over the car approval system to ensure that the updated rules are applied uniformly and effectively throughout the EU. The new rules will also allow checks of cars that are already on the EU market and the Commission will be able to carry out assessments of the procedures. It is expected that the introduction and application of the new regulation (EU) 2018/858 will strengthen the control mechanisms also at EU level to prevent future fraudulent manipulation of vehicles and another diesel scandal.

【記事 : Article】

1. Background of the regulation (EU) 2018/858
The Volkswagen emissions scandal, known as Dieselgate, emerged on 18 September 2015, when the US Environment Protection Agency (EPA) issued a notice of violation of the Clean Air Act to the Volkswagen Group (VW). The EPA had found that VW had intentionally programmed their diesel car engines to activate the emission control only during the laboratory testing of emissions in order to meet the

NO emission standards. Instead, in real world driving, the NO emissions were 40 times higher. Volkswagen deployed the fraudulent “defeat mechanisms” within the software in about 11 million diesel cars worldwide.

In the wake of the VW diesel scandal, the European Parliament established the Committee of Inquiry into Emission Measurements in the Automotive Sector (EMIS). The EMIS Committee was tasked with the inquiry of the reasons that had caused the failures in the supervision of the automobile manufacturing industry, which ultimately led to the Dieselgate scandal. The EMIS was also tasked to investigate whether maladministration in the law’s application by the European Commission and/or the Member States’ institutions had supported the fraudulent activities of the automobile manufacturers.

On 28 February 2017, the EMIS Committee adopted its final report and presented results. The investigation saw discrepancies of laboratory test and road test results of the NOx emissions of diesel cars. It concluded that the EU Member States contravened their legal obligation to monitor and enforce the ban on “defeat devices” and to require automobile manufacturers to remove defeat strategies from their vehicles. The report identified also gaps in the EU car type-approval system as well as shortcomings in the enforcement of the EU emissions legislation in the individual EU Member States, showing a malfunctioning of the administration. The key failures included that cars had not been tested independently and that the responsible authorities in the EU Member States contravened their legal obligation to monitor and enforce the ban on defeat devices set out in Article 5(2) of Regulation (EC) No 715/2007. While none of the Member States’ testing facilities found the defeat devices installed in the Volkswagen vehicles, the vast majority of automobile manufacturers declared that they were in fact using the derogations in Article 5(2) of Regulation (EC) No 715/2007, which allowed to shut off pollution controls to protect the cars’ engines. The

fraudulent behaviour of some automobile manufacturers was instead to activate such devices that pollution controls were almost never turned on and only functioning during emission tests.

The EMIS Committee concluded that the European Commission and EU Member States and their national authorities all failed to monitor cars for illegal emissions and that their maladministration helped to make the Volkswagen fraud possible.

2. New testing procedure for testing the light vehicles emissions WLTP and RDE replaces NEDC

Before the VW diesel scandal unfolded, only a laboratory test was mandatory to measure compliance with the EU’s emissions limits. However, since the NEDC (New European Driving Cycle) laboratory tests did not accurately reflect the amount of air pollution emitted during real driving conditions, the European Commission worked on the introduction of a Real Driving Emissions testing procedure to complement the laboratory procedure. The World harmonised Light vehicle Test Procedure (WLTP) for measuring fuel consumption, carbon dioxide (CO₂) emissions, nitrogen oxides (NO_x), carbon monoxide (CO) and particulates by mass and number (PM and PN) from cars and vans was introduced after the VW diesel scandal and successively replaced the NEDC laboratory tests.

The WLTP procedure determines the levels of CO₂ emissions and fuel consumption of traditional and hybrid cars, as well as the range of fully electric vehicles. As of September 2017, the WLTP was introduced for new type approvals of all new car models and from 1 September 2018 onwards, the new WLTP test became also mandatory for all new cars registered in the EU. With the full introduction of the WLTP, the formerly used NEDC test procedure was phased out until September 2019. Automobile manufacturers were required to obtain approval under both, WLTP and NEDC for any new vehicle from 1 September 2017, while from September 2018, measures of fuel consumption and CO₂ emissions

obtained under WLTP are the only one with legal validity. Since it can be expected that the full application of the WLTP and real world emission tests will show higher levels of CO2 emissions for passenger cars but also for vans, the automobile manufacturers will have to significantly improve their efforts in order to meet future CO2 emission reduction targets.

The mandate for the Commission was now to keep test cycles under review, and the Commission had also to introduce real driving emission (RDE) testing with Portable Emission Measurement Systems (PEMS) into the EU type-approval procedure as of 2017. Consequently, since 1 September 2017, new car models have to pass both tests, RDE and WLTP before they can be driven on European roads. The Real Driving Emission (RDE) measurements of NOx became also compulsory for all new vehicles from September 2019. The NOx measured in the RDE test may not exceed 2.1 times the measured threshold value under WLTP. The value for particle emissions (PN) has already to fulfil the conformity factor of 1.0 with a measuring tolerance of 0.5. Therefore, the value measured under real-driving conditions is a maximum of 1.5 times higher than the value measured under WLTP. With the continuous adaption of RDE regulations, the Euro 6d standard, which came into effect in 2020, has further reduced the conformity factor for NOx of 1.0 with a measuring tolerance of 0.43. Therefore, the NOx values measured under real-driving conditions are allowed to be a maximum of 1.43 times higher than the value measured under the WLTP.

3. The European Commission' s new power in the oversight of the type-approval process

Along with finalisation of the new testing procedure and the replacement of the NEDC with the WLTP, the EU also intended to update the legislation regarding the monitoring efforts and to give the European Commission new authority to carry out checks on national authorities.

As part of on-going legislative review in response

to the Volkswagen case, the European Commission tabled also a proposal for strengthening the type-approval system for motor vehicles in order to ensure the effective enforcement of rules, including through market surveillance and to introduce EU oversight on the type-approval process of vehicles conducted by national authorities. These authorities certify that a vehicle model meets all EU safety, environmental and production requirements before it is placed on the market. By introducing new type-approval rules the Commission intended to prevent a further intentional non-compliance with the EU' s regulations on car emissions. The new regulation is expected to strengthen European oversight over the car approval system and to ensure that the updated rules are applied uniformly and effectively throughout the EU. The final version of the legislation combined with the RDE testing is expected to help making cars safer and cleaner. It is also expected that by this new control mechanism a future diesel scandal can be avoided.

On 27 January 2016, the European Commission proposed a Regulation of the European Parliament and of the Council on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles” (COM/2016/031 final). The proposal intended to oblige manufacturers to cooperate and exchange information with approval and market surveillance authorities, and requires market surveillance authorities to carry out spot-checks on cars in circulation. In addition, the proposal requires type-approval documentation to be made publically available. The Commission was intended to receive the power to suspend, restrict or withdraw the designation of technical services, among others. On 29 May 2017, the Council of Ministers from the 28 EU Member States agreed on a general approach on the proposal COM/2016/031 final. The ministers approved some key points of the proposal including to giving the European Commission more powers to

monitor testing and fining automobile manufacturers. However, the Council rejected one critical amendment that national regulators could not receive direct payments from automobile manufacturers for testing. Therefore, in the Regulation (EU) 2018/858 it is defined that the automobile manufacturers can continue to directly pay for the performance of the technical services and official type-approval testing at the launch of a new model on the EU market. As regards vehicles that are already available on the market and for sale at the dealerships, the new EU type approval framework requires that all Member States make sure that there is enough national funding available in each country to test a minimum number of vehicles. On 7 December 2017, the European Commission, Parliament and Council reached a provisional agreement on the proposal. They also agreed on the requirement that Member States provide sufficient funds for market surveillance activities and type-approval activities from fees levied on manufacturers. Therefore, the EU Member States successfully kept out a provision in the proposal, which would have stopped automobile manufacturers from funding the national authorities' test laboratories. However, the Commission will be able to check the performance of cars, which are already on the road in order to ensure they continue to meet health, safety and environmental standards.

The testing centres (so-called "technical services") will be regularly and independently audited. Thereby, the new type-approval rules reduce the power of national authorities, and it will empower the Commission to test and inspect vehicles in order to ensure the compliance with the EU emissions standards and respond to any irregularities. The changes to the approval of motor vehicles and their components and separate technical units intended for such vehicles gives the European Commission the power to oversee the authorities and fine the automobile manufacturers directly if they commit fraud.

On 1 September 2020, the Regulation (EU) 2018/858

of 30 May 2018 on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles, amending Regulations (EC) No 715/2007 and (EC) No 595/2009 and repealing Directive 2007/46/EC has started to apply. The regulation significantly overhauls and tightens the previous type-approval and market surveillance system by improving the quality and independence of vehicle type-approval and testing. It allows an increase of checks of cars already on the EU market and strengthens the overall system with greater European oversight.

The new terms that are defined in Regulation (EU) 2018/858 are expected to significantly raise the quality level and independence of vehicle type-approval and testing. It will also allow tests of cars that are already on the EU market and strengthens the European oversight.

With the start of the application of Regulation (EU) 2018/858, the Commission can carry out assessments of the procedures and gain overview over the type-approval authorities in Member States. The majority of Member States designate technical services to test and inspect new car models. From now on, these technical services will be regularly and independently audited, on the basis of stringent performance criteria, to obtain and maintain their designation by a EU Member State for testing and inspecting new car models. National authorities will have to use accreditation bodies to assess and certify the technical services or otherwise technical services to be designated will be subject to joint audits by the Commission with national experts from other Member States, including on-site visits to testing facilities. The Commission will have the power to suspend, restrict or withdraw the designation of technical services that are underperforming and too lax in applying the rules. Also other Member States will be able to challenge a designation. The EU Commission can trigger EU-wide recalls and can impose fines on carmakers of up to EUR 30,000 per

non-compliant vehicle. This sum would be fined in addition to any penalties levied by national authorities, which will still retain the right to issue fines at their discretion. The question is whether they have the will to make the full use of the powers.

All Member States have to carry out a verification test on at least one car for every 40,000 new registered motor vehicles. Although the focus is on emission testing, safety aspects will also be checked. Given that in 2019 almost 17.9 million new motor vehicles were registered in the EU, at least 447 vehicle market surveillance checks would have to be carried out in the EU.

The Commission has earmarked extra funding of €7 million for its Joint Research Centre (JRC) to take on the new role to audit the testing facilities' work. This would include checking if new cars meet the stricter Euro 6d limits in real-life conditions, whether manufacturers report fair values on the new CO2 tests (WLTP).

4. Conclusion

Five years ago, the VW diesel scandal highlighted the weakness of the European type-approval system and also pointed out the authorities' maladministration. The reform includes the application of the WLTP and RDE tests and the introduction of the Regulation (EU) 2018/858 of 30 May 2018. This is only part of the European Commission's wider work for a clean, sustainable and competitive automobile sector in the Commission's Communication "Europe on the Move", which includes initiatives regarding air quality and CO2 standards, the improvement of emission testing for cars and the support for alternative fuels and battery production for hydrogen fuel cell powered cars and electric vehicles.

This general reform is expected to fundamentally improve the testing situation and the market surveillance checks by Member States, which were virtually non-existent in the past.

The key elements of the EU's reform includes the

independence and quality of testing before a car is placed on the market, and includes also the checks on cars already on the market and the introduction of a European oversight.

The technical services performing testing and inspections of new car models will be independently audited on the basis of stringent criteria. National type-approval authorities are now subject to peer reviews to ensure that the relevant rules are implemented and enforced across the EU. In addition, the Commission is now able to carry out compliance and conformity checks on vehicles in laboratories or on the road, which was so far a privilege of national authorities only. Non-compliant vehicles can be withdrawn from service without waiting for the national authority that issued the type-approval to take action. The European Commission has now the power to fine the automobile manufacturers directly if they commit fraud, based on the Regulation (EU) 2018/858. It is expected that the Commission will make full use of its new power and control mechanisms in order to avoid another diesel scandal.

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