

# **In-Use Motor Vehicle Recall and Correction Regulation**

## **Article 1**

This Regulation is determined pursuant to Article 41, paragraph 2 of the Air Pollution Control Act (hereinafter referred to as the Act).

## **Article 2**

Terms being used in this regulation are defined as follows:

- 2.1. Preliminary investigation test is the emissions investigation tests on vehicles within a specific engine family or vehicle model for the implementation of in-use motor vehicle recall and correction plan.
- 2.2. Confirmation investigation test is the emissions investigation tests on vehicles within a specific engine family or vehicle model to confirm the test results for the preliminary test that is determined as noncompliance to the emission standards as specified in Article 36, paragraph 2 of the Act.
- 2.3. Restoration maintenance means the vehicle parameter adjustments during maintenance process on the test vehicle shall be in accordance with contents of vehicle owner's manual and the information provided on the vehicle emission control label that being submitted to the central competent authority for the application of the vehicle model's Certificate of Conformity.
- 2.4. Voluntary recall and correction means the manufacturer or importer directly notify the vehicle owners to make remedies on the vehicle that has concerns may fail to meet the emission standards through self-judgment, or when the foreign competent authority or original manufacturer has already announced to implement recall plan for that vehicle model, or when the vehicle model has adopted any emission-control related parts that was determined as the cause for the vehicle failed to meet the emission standards.
- 2.5. Mandatory recall and correction means the central competent authority orders the vehicle manufacturer or importer to notify vehicle owners and implement correction measures after the confirmation investigation test was determined as noncompliance or the manufacturer or importer failed to initiate a voluntary recall and correction plan in accordance with this regulation.
- 2.6. Validation test means during review of a recall and correction plan,

the central competent authority may order the vehicle manufacturer or importer to conduct tests on vehicles, engines or related parts to confirm whether its correction measure is effective and capable to make the vehicle in compliance with the emission standards after improvement.

### **Article 3**

The applicable vehicles for this Regulation shall be the in-use motor vehicles that have obtained the vehicle model's Certificate of Conformity issued by the central competent authority.

### **Article 4**

The central competent authority shall designate the in-use vehicles that were sold and covered in an engine family or vehicle model to perform the recall and correction investigation tests based on the following conditions:

- 4.1. Periodic or random exhaust emissions test results.
- 4.2. Sales volume of the vehicle or engine.
- 4.3. The statistical analysis information for the Conformity of Production test results.
- 4.4. The new vehicle selective confirmatory test results or the in-use vehicle's recall and correction investigation test results.
- 4.5. Information recorded in the vehicle model's Certificate of Conformity.
- 4.6. Other related matters being identified by the central competent authority that has concern of causing noncompliance with the emission standards.

Prior selection of the foregoing paragraph mentioned test vehicles; the operation and maintenance status shall be confirmed through conducting surveys on the vehicle owners.

The vehicle manufacturer or importer shall cooperate with the central competent authority to notify the test vehicle owners.

### **Article 5**

During the test vehicles selection process, after conduct the vehicle inspection and owner's survey, the central competent authority shall not choose any vehicle with one of the following conditions for the investigation tests.

- 5.1. The vehicle maintenance is not conducted according to owner's manual.
- 5.2. The vehicle's emission control system has exceeded its useful life or durability mileage warranty.
- 5.3. The vehicle has been under abnormal operating conditions.
- 5.4. The vehicle has been performed major repairs due to an accident.
- 5.5. The inspection result for the sample fuel that being drawn from the vehicle's fuel tank has failed to comply with the legal standards.
- 5.6. The vehicle operating conditions may cause safety concerns for the laboratory equipment or related personnel.

If vehicle manufacturer or importer has objection over the selected vehicles, the objection shall be proposed one day prior the test, being agreed by the central competent authority, that vehicle may be excluded from the list of recall and correction test vehicles.

If any maintenance, modifications or testing has been performed on the vehicle and without the central competent authority's approval, then the vehicle shall not be listed as the test vehicle for the recall and correction investigation test.

## **Article 6**

Prior to perform the preliminary investigation test or confirmation investigation test by the central competent authority, the vehicle manufacturer or importer shall send personnel to cooperate with execution of inspection, restoration and maintenance on the test vehicles. The manufacturer or importer that fails to send personnel shall not raise objection to the results of inspection, restoration and maintenance on test vehicles.

The inspection and restoration maintenance as mentioned in previous paragraph shall comply with the following stipulations:

- 6.1. The identification numbers of all components of emission control systems shall be consistent with information recorded in the vehicle model's Certificate of Conformity issued by the central competent authority.
- 6.2. Tires, battery, belts, fluid levels, radiator cap, vacuum tubing, flexible tubing and emission control systems related interconnect lines and hoses shall be fully intact.

- 6.3. Fuel supply and emission control system components shall not be replaced, modified or inappropriately adjusted.
- 6.4. Cylinder pressure shall meet the original design standards.
- 6.5. Engine parameters shall be adjusted to the original design and manufacture specifications.
- 6.6. Replace the fuel with test fuel.

The previous paragraph mentioned inspection and restoration maintenance results shall be recorded; if the inspection fails to meet stipulation requirements, with consent of the central competent authority, the vehicle may be excluded from the list of recall and correction test vehicles.

Within 800 kilometers travel mileage for the test vehicle, any scheduled periodical maintenance shall be performed. If necessary, the vehicle manufacturer or importer may perform the next stage periodical maintenance.

## **Article 7**

The number of vehicles for the preliminary investigation test shall be five. For the preliminary investigation test results, if the arithmetic mean of the test results for any of the regulated air pollutant exceeds the emissions standards limit, or the test results of the same regulated air pollutant from three or more testing vehicle exceed the emissions standards limit, then the preliminary test of that engine family or vehicle model shall be deemed as fail to meet the emissions standards. However, for vehicles applicable to Article 5 of the emission standards effective on September 1, 2019, the preliminary investigation test related stipulations shall be handled in accordance with provisions stipulated in Appendix 1.

## **Article 8**

If the previous paragraph mentioned preliminary investigation test results fail to meet the emissions standards, or the central competent authority determines that there are concerns on the test vehicle which may fail to comply with the emissions standards, then the central competent authority shall perform the confirmation investigation test on that engine family or vehicle model.

The number of vehicles for the confirmation investigation test mentioned above shall be ten. For the confirmation investigation test results, if the arithmetic mean of the testing results for any regulated

air pollutant exceeds the emissions standards limit, then the confirmation investigation test for that engine family or vehicle model shall be deemed as fail to comply with the emissions standards. However, for vehicles that applicable to article 5 of the emission standards effective on September 1, 2019, the determination of the confirmation investigation test results shall be in accordance with provisions stipulated in Appendix 1.

If the vehicle manufacturer or importer has any objection against the confirmation investigation test results shall submit a written explanation document within twenty days after receipt of the notification from the central competent authority and the central competent authority shall hold the review meeting for this document.

## **Article 9**

For the test vehicles mentioned in Article 7 or 8, if two or more vehicles were unable to perform the investigation emissions test due to functionality defect or being installed with a defeat emissions control device, or when the test results are unable to correctly indicate the emissions values of that vehicle, then the investigation test of that engine family or vehicle model shall be deemed as fail to comply with the emission standards.

## **Article 10**

During the process of preliminary or confirmation investigation tests, the vehicle manufacturer or importer may request for a retest before the vehicle is removed from the testing laboratory at the expense of that manufacturer or importer and the results of retest shall be considered as the final test result values.

## **Article 11**

For vehicles of an engine family or vehicle model with one of the following conditions, the vehicle manufacturer or importer shall submit a voluntary recall and correction plan, after being approved by the central competent authority, then the manufacturer or importer shall implement the recall and correction plan:

- 11.1. Through self-judgment, the manufacturer has determined that its vehicle may fail to meet the emission standards.
- 11.2. The foreign competent authority or original manufacturer has already announced to initiate a recall program. However, if the vehicle recall is not related to failing to meet the emission standards, or vehicle being installed with defective functionality

or defeat emission control devices and the manufacturer or importer has submitted relevant proof documents to the central competent authority for approval to be filed for future reference, then it shall be exempted from this requirement.

11.3. The reason for the vehicle failing to meet the emission standards was adopted defective emission control device.

As to the conditions described in provision 11.2, the manufacturer or importer shall provide proof documents with descriptions including the original manufacturer initiated correction measures that being reviewed and approved by the foreign competent authority; the number of affected domestic vehicles; expected completion rate of recalled vehicles and period of time required for implementation to the central competent authority for approval and to be filed for future reference. After being approved, the manufacturer or importer shall implement directly the recall and correction measures and not necessary to submit a voluntary recall and correction plan.

## **Article 12**

The manufacturer or importer shall complete the voluntary recall and correction plan within 1 year from the next date after receipt of the approval notification from the central competent authority. If the manufacturer or importer was unable to complete the plan within the approved deadline, 30 days prior the deadline, a specific improvement plan shall be submitted to the central competent authority to apply for extension. The central competent authority shall grant the deadline extension based on actual situations, and the maximum extension shall not exceed 1 year; if the recall and correction plan was found to be implemented not in accordance with the proposed improvement plan and being confirmed, the central competent authority may terminate the extension immediately.

## **Article 13**

For the engine family or vehicle model that was determined as noncompliance with the emission standards in accordance with paragraph 2 of Article 8 or in accordance with provisions of Article 9, the central competent authority shall order the manufacturer or importer to submit a mandatory recall and correction plan. Likewise for the manufacturers or importers that failed to initiate a voluntary recall and correction plan in accordance with Article 11.

## **Article 14**

The vehicle manufacturer or importer shall submit a recall and correction plan within 30 days from the next day after receiving notification from the central competent authority pursuant to Article 13. Being reviewed and approved by the central competent authority, the manufacturer or importer shall complete the mandatory recall and correction plan within 1 year from the next date after receipt of the approval notification. If the manufacturer or importer was unable to complete the plan within deadline, within 30 days prior the deadline, a specific improvement plan shall be submitted to the central competent authority to apply for extension. The central competent authority shall approve the extension based on actual situations, and the maximum extension shall not exceed 1 year; if the recall and correction plan was found not to be implemented in accordance with the proposed improvement plan and being confirmed, then the central competent authority may terminate the extension immediately.

#### **Article 15**

During review of the recall and correction plan submitted by the vehicle manufacturer or importer, the central competent authority shall conduct validation tests for the correction measures.

#### **Article 16**

To implement the recall and correction plan, from the next month after receipt of notification on the approval of the proposed recall and correction plan or agree to be filed for future reference on the original manufacturer proposed correction measures, the vehicle manufacturer or importer shall submit the implementation records of previous month in written form (including accumulated number of vehicles being completed and the completion rates) before day 15<sup>th</sup> of each month to the central competent authority for future reference.

Within the deadline of the being approved recall and correction plan or agree to be filed for future reference of the original manufacturer's correction measures, if 90% of the recall and correction plan has been completed, or if the completion rate agreed in the review meeting held by the central competent authority has been achieved, within 15 days after the deadline, the manufacturer or importer shall finish and submit the recall and correction report to the central competent authority for review. The principle for determination of completion rate shall be in accordance with provisions stipulated in Appendix 2.

The central competent authority shall perform random sampling

tests on the vehicles that being conducted the recall and correction remedies within or after implementation period of the recall and correction plan. If the number of recalled vehicles is below 10,000 units, the central competent authority shall select 10 vehicles for the test; if the number of recalled vehicles is over 10,000 units; select one more vehicle per every 1,000 additional vehicles.

If the arithmetic mean of emissions values for the sampling vehicles that comply with the emission standards, the central competent authority shall notify the manufacturer or importer in written form on its determination to conclude that the recall and correction plan for that engine family or vehicle model has been completed; if the arithmetic mean of emissions values for the sampling vehicles that fails to comply with the emission standards, then the recall and correction plan shall be determined as not finished. However, for the vehicles applicable to Article 5 of the Emission Standards effective on September 1, 2019, the determination of test results for the sampling vehicles shall be handled in accordance with provisions stipulated in Appendix 1.

For the previously mentioned recall and correction plan that being determined as unfinished, in accordance with Article 41, paragraph 1 of the Act, the manufacture, importation and sale of that vehicles shall be suspended and notify the manufacturer or importer to implement remedies or improvement measures within deadline, if unable to complete remedies or improvements within deadline, the manufacturer or importer shall be penalized in accordance with Article 77, paragraph 2 of the Act.

## **Article 17**

For vehicle manufacturer or importer that fails to comply with the order by the central competent authority to complete the recall and correction plan within deadline, pursuant to Article 77, paragraph 1 of the Act, it shall be fined, and pursuant to Article 41, paragraph 1 of the Act, the manufacture, importation and sale of that engine family or vehicle model shall be suspended.

## **Article 18**

For the review pursuant to this Regulation, the central competent authority shall invite scholars and experts to hold the review meeting.

The central competent authority may invite the vehicle manufacturer or importer to attend and making explanations at the previous mentioned review meeting.

## **Article 19**

The contents of a recall and correction plan submitted by a vehicle manufacturer or importer are specified as descriptions in Appendix 3; the contents of recall and correction report are specified as descriptions in Appendix 4; the contents of a recall and correction notification letter issued to vehicle owners are specified as descriptions in Appendix 5.

The recall and correction records and reports shall be preserved for 5 years.

## **Article 20**

The central competent authority may commission a professional technical organization to handle recall and correction plan related matters.

## **Article 21**

This regulation shall take effect on the date of promulgation.

**Appendix 1 For vehicles applicable to Article 5 of the Emission Standards effective on September 1, 2019, the Preliminary and Confirmation investigation tests related stipulations are as follows:**

**1. Application for Heavy-Duty Buses and Trucks:**

**1.1. Preliminary investigation test:**

1.1.1. For preliminary investigation test, at least 3 vehicles shall be selected for the test. The central competent authority may increase the number to 5 vehicles depends on situations.

**1.1.2. Preliminary investigation test provisions:**

**1.1.2.1. Real driving on-road test**

- a. Test conditions and method: the test conditions shall be in accordance with Table 1, Character C of Appendix 9 to Annex I to Regulation (EU) No 582/2011 regulated requirements and the test method shall be in accordance with Annex II to Regulation (EU) No 582/2011 regulated requirements.
- b. In-service conformity factor means the ratio between the pollutant emissions result values of valid windows for the real driving on-road test and the threshold limits of the WHTC driving cycle test as specified in Article 5 of the Emission Standards.
- c. Test route: The test route shall be in accordance with provisions specified in Annex II to Regulation (EU) No 582/2011 and the subsequent amendment directives.
- d. Test fuel: The basic test fuel shall be domestic market fuel; or with consent from the central competent authority, the vehicle manufacturer or importer may choose to use emissions test fuel at its own expense.

1.1.2.2. Smoke opacity instrument test: in accordance with the “Diesel Motor Vehicle Smoke Opacity Testing Methods and Procedures” to conduct the test.

**1.1.3. Test result analysis method:**

1.1.3.1 Real driving on-road test: each test vehicle shall be tested in accordance with paragraph 1.1.2 of this appendix, and any one of the pollutant emissions testing results shall be analyzed in accordance with stipulations specified in point 4 of Appendix to Annex 2 to Regulation (EU) No 582/2011 and the subsequent amendment directives. Ninety percent of the in-service exhaust emission

conformity factors shall not exceed any of the values set out in Table 1 of this Appendix. If the limit is exceeded, then that vehicle shall be determined as noncompliance vehicle. However, if during the test the ambient conditions exceeded the conditions as specified in provisions of Regulation (EU) No 582/2011 and the subsequent amendment directives, the vehicle may be retested within the required ambient conditions.

Table 1 Maximum allowed conformity factors for in-service Heavy-Duty Buses and Trucks.

Pollutant	Maximum allowed conformity factor
CO	1.50
THC	1.50
NO <sub>x</sub>	1.50

1.1.3.2 Smoke opacity instrument test: the test results shall not exceed the smoke opacity standards as specified in Article 5 of the Emission Standards effective on September 1, 2019. If the testing results exceed the standard limits, then that vehicle shall be determined as noncompliance vehicle.

1.1.4. The pass and fail decision for the preliminary investigation test shall be determined according to the number of noncompliance vehicles correspond to the pass decision number and fail decision number as specified in Table 2 of this Appendix to the preliminary investigation test sampling plan.

Table 2 Pass and fail decision numbers of the sampling plan for preliminary investigation test.

Cumulative number of vehicles tested (sample size)	Number of noncompliance vehicles	
	Pass decision number	Fail decision number
3	0	--
4	0	4
5	0	4

If the number of noncompliance vehicles is equal to the corresponding pass decision number as specified in Table 2 of this Appendix, then the preliminary investigation test shall be determined as pass.

If the number of noncompliance vehicles is greater than the corresponding pass decision number and less than the fail decision

number as specified in Table 2 of this Appendix, then the preliminary investigation test shall be determined as fail and the vehicle manufacturer or importer shall conduct the confirmation tests on that engine family or vehicle model, or in accordance with Article 11 of this Regulation to propose a voluntary recall and correction plan.

If the number of noncompliance vehicles is greater than the corresponding fail decision number as specified in Table 2 of this Appendix, then the investigation test shall be determined as fail and shall be handled in accordance with Article 13 of this Regulation.

- 1.1.5. If the engine manufacturer or importer has objection on the previous paragraph mentioned preliminary investigation test results, the engine manufacturer or importer shall submit an explanation document in written form within 20 days from the next day of receipt of notification, and the central competent authority shall hold a review meeting on the explanation document.

## 1.2. Confirmation investigation test:

- 1.2.1. The engine manufacturer or importer shall complete the confirmation investigation test within the deadline prescribed by the central competent authority and the central competent authority shall designate personnel to supervise the whole execution process for the confirmation investigation test. The engine manufacturer or importer shall be responsible for the related costs.

Unable to complete the confirmation investigation test within deadline, the engine manufacturer or importer shall apply for extension to the central competent authority and provide reasons for unable to meet the deadline. The central competent authority may grant the extension period according to actual situations; if the confirmation investigation was found not to be implemented in accordance with regulated process requirements, pursuant to Article 41, paragraph 1 of the Act, the competent authority shall order to prohibit the manufacture, importation and sale of that engine.

- 1.2.2. Confirmation investigation test provisions: the test shall be conducted in accordance with paragraph 1.1.2 of this Appendix.
- 1.2.3. The test results analysis method shall be in accordance with paragraph 1.1.3 of this Appendix.
- 1.2.4. The minimum sample number of vehicles for the confirmation investigation test shall be twice the number of noncompliance vehicles for the preliminary investigation test and the maximum accumulative sample number of test vehicles shall be 10.

- 1.2.5. Pass and Fail determination principle: The pass and fail decision for the confirmation investigation test shall be determined according to pass decision number and fail decision number of the confirmation investigation test sampling plan as specified in Table 3 of this Appendix.

Table 3 Pass and fail decision numbers of the sampling plan for conformation investigation test.

Cumulative number of vehicles tested (sample size)	Number of noncompliance vehicles	
	Pass decision number	Fail decision number
6	1	4
7	1	4
8	2	4
9	2	4
10	3	4
Note: the cumulative number of vehicles tested includes the vehicles being tested for the preliminary investigation test.		

Within the accumulative number of tested vehicles, if the number of noncompliance vehicles is equal to the corresponding pass decision number as specified in Table 3 of this Appendix, then the confirmation investigation test shall be determined as pass.

Within the accumulative number of tested vehicles, if the number of noncompliance vehicles is greater or equal to the corresponding fail decision number as specified in Table 3 of this Appendix, then the confirmation investigation test shall be determined as fail.

If the accumulative number of tested vehicles can not correspond to the pass decision number or fail decision number, then adding the sample test vehicles each time by two and the maximum number of accumulative test vehicles shall be 10.

## 2. Application for Light-Duty Passenger Cars and Trucks:

### 2.1. Preliminary investigation test

2.1.1 At least 3 vehicles shall be selected for the preliminary investigation test. The central competent authority may increase the number to 5 vehicles depends on situations.

### 2.1.2 Preliminary investigation test provisions:

#### 2.1.2.1 Real driving on-road test

- a. Test conditions and test method: the test conditions shall be in accordance with related provisions of the Temporary Conformity

Factors as regulated in EU Regulation (EC) No 715/2007 and the subsequent amendment directives.

- b. In-service conformity factor: means ratio between the pollutant emissions result values for the real driving on-road test and the threshold limits of the WLTC driving cycle test as regulated in Article 5 of the Emission Standards.
- c. Test route: the route selection for the test shall be in accordance with Regulation (EC) 715/2007 and the subsequent amendment directives.
- d. Test fuel: The basic test fuel shall be domestic market fuel; or with consent from the central competent authority, the vehicle manufacturer or importer may choose to use emissions test fuel at its own expense.

2.1.2.2 Smoke opacity instrument test: in accordance with the “Diesel Motor Vehicle Smoke Opacity Testing Methods and Procedures” to conduct the test.

2.1.3. Test results analysis method:

2.1.3.1 Real driving on-road test: each test vehicle shall be tested in accordance with paragraph 2.1.2 of this appendix, and any one of the pollutant emission testing results shall be analyzed in accordance with the Temporary Conformity Factors related provisions as specified in Regulation (EC) No 715/2007 and the subsequent amendment directives. The in-service exhaust emission conformity factors shall not exceed any of the values set out in Table 4 of this Appendix. If the limit is exceeded, then that vehicle shall be determined as noncompliance vehicle. However, if during the test the ambient conditions exceeded the conditions as specified in provisions of Regulation (EC) No 715/2007 and the subsequent amendment directives, the vehicle may be retested within the required ambient conditions.

Table 4 Maximum allowed conformity factors for in-service Light-Duty Passenger Cars and Trucks.

Pollutant	Maximum allowed in-service conformity factor
NO <sub>x</sub>	2.10
PN	1.50

2.1.3.2 Smoke opacity instrument test: the test results for each vehicle shall not exceed the smoke opacity standards as specified in Article 5

of the Emission Standards effective on September 1, 2019. If the testing results exceed the standard limits, then that vehicle shall be determined as noncompliance vehicle.

2.1.4. The pass and fail decision for the preliminary investigation test shall be determined according to the number of noncompliance vehicles correspond to the pass decision number and fail decision number of the preliminary investigation test sampling plan as specified in Table 5 of this Appendix.

Table 5 Pass and fail decision numbers of the preliminary investigation test sampling plan.

Cumulative number of vehicles tested (sample size)	Number of noncompliance vehicles	
	Pass decision number	Fail decision number
3	0	--
4	1	--
5	1	5

If the number of noncompliance vehicles is equal to or less than the corresponding pass decision number as specified in Table 5 of this Appendix, then the preliminary investigation test shall be determined as pass.

If the number of noncompliance vehicles is greater than the corresponding pass decision number and less than the fail decision number as specified in Table 5 of this Appendix, then the preliminary investigation test shall be determined as fail and the vehicle manufacturer or importer shall conduct the confirmation test on vehicle models of that engine family, or pursuant to Article 11 of this Regulation to propose a voluntary recall and correction plan.

If the number of noncompliance vehicles is equal to the corresponding fail decision number as specified in Table 5 of this Appendix, then the investigation test shall be determined as fail and shall be handled in accordance with Article 13 of this Regulation

2.1.5. If the vehicle manufacturer or importer has objection on the previous paragraph mentioned preliminary investigation test results, the vehicle manufacturer or importer shall submit an explanation document in written form within 20 days from the next day of receipt of notification, and the central competent authority shall hold a review meeting on the explanation document.

2.2. Confirmation investigation test:

2.2.1. The vehicle manufacturer or importer shall complete the confirmation investigation test within deadline that prescribed by the central competent authority and the central competent authority shall designate personnel to supervise the whole execution process for the confirmation investigation test. The vehicle manufacturer or importer shall be responsible for the related costs.

Unable to complete the confirmation investigation test within deadline, the vehicle manufacturer or importer shall apply for extension to the central competent authority and provide reasons for unable to meet the deadline. The central competent authority may grant extension period according to actual situations; if the confirmation investigation was found not to be implemented in accordance with the regulated process, pursuant to Article 41, paragraph 1 of the Act, the competent authority shall order to prohibit the manufacture, importation and sale of that vehicle model.

2.2.2. Confirmation investigation test provisions: the test shall be conducted in accordance with paragraph 2.1.2 of this Appendix.

2.2.3. The test results analysis method shall be in accordance with paragraph 2.1.3 of this Appendix.

2.2.4. The sample number of vehicles for the confirmation investigation test shall be determined according to the number of noncompliance vehicles for the preliminary investigation test, at least 2 vehicles shall be added for the confirmation investigation test.

2.2.5. Pass and Fail determination principle: The pass and fail decision for the confirmation investigation test shall be determined according to the pass decision number and fail decision number of the confirmation investigation test sampling plan as specified in Table 6 of this Appendix.

Table 6 Pass and fail decision numbers of the conformation investigation test sampling plan.

Cumulative number of vehicles tested (sample size)	Number of noncompliance vehicles	
	Pass decision number	Fail decision number
6	2	6
7	2	6
8	3	6
9	4	6
10	5	6
Note: the cumulative number of vehicles tested includes the number of vehicles being tested for the preliminary investigation test.		

Within the cumulative tested vehicles, if the number of noncompliance vehicles is less than or equal to the corresponding pass decision number as specified in Table 6 of this Appendix, then the confirmation investigation test shall be determined as pass.

Within the accumulative number of tested vehicles, if the number of noncompliance vehicles is greater or equal to the corresponding fail decision number as specified in Table 6 of this Appendix, then the confirmation investigation test shall be determined as fail.

If the accumulative number of tested vehicles can not correspond to the pass decision number or fail decision number, then successive increase the sample test vehicles each time and the maximum number of accumulative test vehicles shall be 10.

3. If the confirmation investigation test was determined as fail in accordance with paragraph 1.2.5 or paragraph 2.2.5 of this Appendix, the subsequent matters shall be handled in accordance with Article 13 of this Regulation.
4. Pass or fail determination for random sample testing: the central competent authority shall perform random sample testing in accordance with Article 16, paragraph 3 of this Regulation, if the test results for each vehicle have shown that no in-service conformity factor for any of the regulated pollutants has exceeded the maximum allowable limits as specified in Table 1 or Table 4 of this Appendix, then the central competent authority shall notify the engine or vehicle model manufacturer or importer on the decision that that engine family or vehicle model has completed the recall and correction plan. If the test results for any of the sample vehicle exceed the maximum allowable limits as specified in Table 1 or Table 4 of this Appendix, then the recall and correction plan shall be determined as unfinished and to start the penalty process.

## **Appendix 2 Approval Principle for Recall and Correction Plan Completion Rate**

The calculation formula for the completion rate as described in this Appendix is  $B/(A-C-D-E-F) \times 100\%$ .

Wherein, A is the number of vehicles shall be recalled; B is the number of vehicles actually being recalled and corrected; C is the scrapped vehicles through commissioning the central competent authority to assist to send verification mails and being confirmed; D is the number of unregistered vehicles through commissioning the central competent authority to assist to send verification mails and being confirmed; E is the number of vehicles being stolen and confirmed; F is the number of vehicles that was determined as too difficult to be executed.

Vehicles which meet the following conditions and approved by the central competent authority shall be deemed as too difficult to be executed and shall be included into calculation formula mentioned above.

1. The vehicle manufacturer or importer has applied for assistance and commissioned the central competent authority to send notification letters to the recall vehicle owners, and the notification letters have been sent at least twice and the date of last one is being mailed over 3 months ago.
2. The vehicle manufacturer or importer has sent notification letters by itself to the recalled vehicles owners at least twice (must include twice media announcements), and the vehicle manufacturer or importer shall initiative to apply for assistance through commission letter to the central competent authority to send notification mails to the recall vehicles owners, after the mails were being sent, the execution of recall and correction plan has been implemented at least 3 months.
3. Other specific actual reasons.

### **Appendix 3 Contents of Recall and Correction Plan**

The contents of recall and correction plan shall include the following items:

1. Descriptions of the make, category, model year, engine family or vehicle model, the number of vehicles to be recalled, and other related information that may be required to identify the recall vehicles.
2. Descriptions of expected ratio between the number of recall vehicles and the sales of the recall vehicles.
3. Summary of technical information for the implementation of correction measures on the recall vehicles, such as parts replacements, repairs, inspection, calibrations, adjustments or other necessary modifications to prove that the remedy measures are capable to reduce the vehicle's exhaust emissions and to comply with this Regulation.
4. The method for the vehicle manufacturer or importer to acquire the name and address of the recall vehicle owner.
5. Without consent from the central competent authority, the vehicle manufacturer or importer shall not force the recall vehicle owner to cooperate on its own maintenance and use specifications or conditions: such as request the vehicle owner not to use non-OEM parts or perform maintenance in workshops not authorized by the manufacturer or importer.
6. The procedure for implementation of the recall and correction plan: it shall include designation of the date on or after which the vehicle owner can have the noncompliance corrected, the designation of repair facility locations, and the time reasonably necessary to perform the correction. After the vehicle manufacturer or importer provided the expecting date to initiate the recall and correction plan, according to the time required for the first recalled vehicle to be corrected, the central competent authority shall estimate an appropriate time period for the completion of the plan.
7. A proof of technical capability for the personnel and equipment of the organization that is responsible to implement the recall and correction plan.
8. The letter of notification to be sent to the recall vehicle owners.
9. The appropriate supply system for needed components and parts that being provided by the vehicle manufacturer or importer, during initial stage and implementation period of the recall and correction plan.
10. Provide necessary work instructions for personnel that will be

participated in the recall and correction plan.

11. Explanations shall be provided, if the implementation of proposed remedy measures may influence fuel consumption, noise or other performance functionality of the vehicle.
12. Other necessary data or report information on the recall and correction plan that being proposed by the vehicle manufacturer or importer for the purpose of evaluation by the central competence authority.

## **Appendix 4 Contents of Recall and Correction Report**

Items shall be included in a recall and correction report:

1. Necessary work instructions for personnel and organizations that will be participated in the implementation of the recall and correction plan.
2. If the number of covered vehicles in the recall and correction plan and the number of noncompliance vehicles for evaluation filed by the vehicle manufacturer or importer were incorrect and being approved for recalculation, the reasons for correction shall be recorded.
3. Except otherwise specified by the central competent authority, the vehicle manufacturer or importer shall submit the previous month recall and correction records before 15<sup>th</sup> of each month to the central competent authority and published in the government bulletin until all the noncompliance vehicles are corrected; or continuously published in the government bulletin for 18 consecutive months from the date of receipt of notification by the recall vehicle owner.
4. The vehicle manufacturer or importer shall maintain in a form suitable for inspection, such as computer information storage devices or card files to record the names and addresses of vehicles owners, results of recall and correction investigation tests, the vehicle owner's name for vehicles that failed to properly maintained or used and the reasons. The format of information storage shall meet the requirements prescribed by the central competent authority.
5. The implementation process for the recall and correction plan shall be fully recorded by the vehicle manufacturer or importer, which includes the following items:
  - 5.1 The Recall and Correction plan number implemented by the vehicle manufacturer or importer.
  - 5.2 Dates of vehicle owner notification, and starting/finished the correction
  - 5.3 The recall and correction plan covered class, category, and number of vehicles and estimated the number of noncompliance vehicles.
  - 5.4 Number of vehicles being implemented the remedy measures and the number of noncompliance vehicles was found during implementation of the recall and correction plan.
  - 5.5 Number of vehicles was remedied during implementation of the recall and correction plan, and unavailable for inspection or for repair reasons.

5.6 Number of vehicles agreed by the central competent authority to be ineligible for the recall and correction plan due to fail to properly maintained or used and the reasons should be proved.

## **Appendix 5 The Contents and Items that shall be Included in the Recall and Correction Notification Letter:**

1. The recall and correction statement by the vehicle manufacturer or importer: “After investigation tests conducted by the central competent authority (authority name), it was found that the pollutant emissions from your vehicle may exceed the emission standards regulated in Article 36, paragraph 2 of the Air Pollutant Control Act”, as the vehicle manufacturer (or importer) (name of manufacturer or importer), according to the stipulations regulated by the central competent authority (authority name) we are responsible to perform recall and correction on your vehicle to maintain ambient air quality and to protect public health.
2. State that the vehicle manufacturer or importer (manufacturer or importer name) will be responsible for all the recall and correction related costs.
3. As to the recall vehicles, if the manufacturer or importer believes the maintenance and use of the vehicle should be confined by specifications and conditions, it shall provide sufficient reasons to prove and explain why the vehicles owners should abide these specifications or conditions.
4. The impact of recall and correction measures on the recall vehicles shall be described.
5. State that for vehicles failed to comply with this Regulation and not participate in the recall and correction measure may be unable to pass the vehicle air pollutant emissions related inspections.
6. The manufacturer or importer should provide specific statements, if participate the recall and correction plan may influence the vehicle’s fuel consumption, noise, or other performance.
7. Descriptions of procedures that should be followed during implementation of recall and correction process, which shall include the date of beginning and date of completion and expected labor hours to execute this remedial measure.
8. The declaration to describe that the vehicle owner shall perform normal maintenance on his vehicle: “Pursuant to Article 6, paragraph 2 of the Air Pollution Act, we (means the manufacturer or importer) guarantee that your vehicle is in compliance with the emission standards specified in Article 36, paragraph 2 of the Air Pollution Act, and in accordance with Article 41 of the same Act, within the useful life of you vehicle’s emission control system, your vehicle is eligible to participate in future recall and correction measures, hence we suggest that you should perform periodic maintenance on your vehicle to ensure safety of driving and maintain our

ambient air quality”.

9. Provide self-stamped envelope to the vehicle owner with printed address of the manufacturer or importer, for the purpose that when the vehicle is being resold, the name and address of new owner could be recorded and mailed back to the manufacturer or importer.
10. Being agreed by the competent authority, the vehicle manufacturer or importer may in conjunction with the progress of recall and correction plan to notify vehicle owner with other related matters.