Appendix 2. Documents to be submitted and relevant regulations when applying for compliance verification

I. When applying for compliance certification, the following documents shall be provided:
   A. Application form (to be completed in the application format)
   B. "Motorcycle model emissions testing compliance certification" draft (to be completed in the application format)
   C. A letter of guarantee for compliance with emissions standards and endurance guarantees
   D. Quality control plan for mass-produced motorcycle emission air pollutants, which shall conform to the following regulations:
      1. Vehicles shall undergo quality control testing at a testing organization authorized by the central competent authority.
      2. The control quality plan shall include the following content:
         a. Self-conducted random testing method
         b. Random test ratio
         c. Test items: shall at least include driving pollutant emission test and idle pollutant emission test.
         d. Name of organization performing the test
         e. Instruments and equipment
         f. Test results and a complete record of the testing procedure
         g. Deployment data for personnel implementing the quality control plan
         h. Flowchart of plan implementation
         i. Improvement methods for problem areas
         j. Other supplemental explanations
   E. General data about applicant company and engine family. (See Table A)
   F. All configurations of the engine family and estimated annual sales volume. (See Table B)
   G. Specifications and identification method for all configurations of the engine family (See Table C)
   H. Basic engine data including combustion cycle, cylinder block configuration, number of cylinders, emission volume, cooling method, air supply method, fuel supply etc. (See Table D)
   I. Gearshift system information (See Table E)
   J. Description and schematic diagram of emission control system (See Table F)
   K. Location of emission control system in vehicle and list of identification numbers for relevant parts. (See Table G)
   L. Emission pollutant-related adjustable parameters and recommended settings (See Table H)
   M. Provide owner's manual, warranty/guarantee and labels in Chinese to be affixed to motorcycle (See Table I)

      The regulations for the user's manual are as follows:
      1. The applicant shall provide the owner of the vehicle a user's manual in Chinese. To provide the vehicle owner with directions for regular operation and maintenance, thereby ensuring that the emission control system can function normally, the manual shall include the following content:
         a. Vehicle specifications list
         b. Methods of use
         c. The octane value and types of vehicle used in the vehicle
         d. Warranty items, time/mileage
         e. Service and maintenance items, time/mileage
         f. Address and telephone number of the vehicle service center
      2. The rules for the maintenance items of components associated with waste emissions and emission control in the user's manual are explained in detail in the remarks of Table 1.

The regulations for affixed labels are as follows:

1. The applicant shall produce at least one long-lasting and easily identifiable label and affix it to the vehicle in a clearly visible place.
2. The label shall not be easy to pull off the vehicle; to the point where the label will be damaged or the print will be illegible if one attempts to pull it off.
3. Applicants that have obtained "compliance certification" shall affix the label onto the vehicle before sale. The Chinese-language content on the language shall include the following information:
    a. The title of the label shall be "Vehicle Emissions Control Data".
    b. Full title of the company, vehicle manufacturer and brand
    c. Vehicle model year, engine family, and engine displacement.
    d. The engine's optimal adjustment specifications, must include idle speed and parameters deemed necessary by the vehicle manufacturer.
    e. Pollution emission control equipment identification number.
    f. The label shall clearly state "This engine family complies with the Emissions Standards implemented on January 1, 2004" (when subsequent emissions standard revisions go into effect the date shall be changed to the subsequent date of promulgation), and "Users may not remove or modify the emission control system."

N. A summary record of new configuration certification test vehicle emission pollutant testing and deterioration factors for hydrocarbons, carbon monoxide, and nitrogen oxides (See Table J)

O. New configuration certification test vehicle test report and approved durability testing data (See Table K)

P. In addition to providing relevant data in accordance with these Regulations (if identical with the previous application data, archived data may be specified for reference by the central competent authority) when applying for the continued use of the model year, motorcycle configuration modification, or new vehicle model extension, a list of items that were modified each time, the date of each modification and a summary of the content of each modification must be filled out. (See Table L)

Q. Photograph of the test vehicle

R. The following explanation shall be provided in the case of motorcycles not powered exclusively by internal combustion engines (such as hybrid electric motorcycles):

1. Certification and explanation of vehicle type
2. Switch function for power operating mode
3. Explanation and mileage warranty for energy storage installations
4. Power machinery system
5. Control unit
6. Power controller
7. The vehicle's greatest driving mileage when electrically powered
8. Suggestions and recommendations of vehicle manufacturer

II. Relevant regulations:

A. If the applicant is not a domestic vehicle manufacturer or the domestic designated dealer of a foreign vehicle manufacturer, the application data shall be based on the user's manual, technical manual, or product catalog of the original manufacturer and the user's manual or product catalog shall be attached to the application. Information that cannot be obtained shall be expressed as N/A. However, the applicant engine family is limited to a single vehicle model. Relevant pollutant testing must be performed at the testing organization designated by the central competent authority; rules in these Regulations concerning requests for extended use are not applicable.

B. The applicant's application data shall conform to requirements of electronic processing by providing electronic files of data requested on forms and all other required documents.

III. The applicant shall fill out the following form:

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table A
			Paging	Date
			Number of revisions	Date of revision

General information

1. Motorcycle manufacturer
2. Manufacturer name
3. Engine family
4. Model year
5. Please issue the testing compliance verification to the following company (company address)
6. Name, address and telephone number of company contact person (includes domestic and overseas contact persons)
7. Pursuant to these Regulations the following items shall be stated item by item (and signed by the statutory responsible person)
    1. Said vehicle complies with these Regulations
    2. Commitments toward the vehicle owner — See Guarantee/warranty
    3. The EPA may inspect testing equipment — See Quality control plan
    4. Commissioned agent in R.O.C. — See
    5. Testing has already been performed in accordance with these Regulations — See Table J

Remarks:

The name of the engine family shall include the emission quantity and end with the model year (for example G50…-97); the identification number may not exceed 12 digits; and the fuel type should serve as the first letter G=gasoline, L=LPG.

Each form shall have a label affixed before the application is accepted.

The statements regarding Item 7 may be included in the letter of application.

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table B
			Paging	Date
			Number of revisions	Date of revision

Additional information

1. The applicant states emissions test data will become stable and representative after a motorcycle containing an engine of this engine family is broken-in to _____ kilometers.
2. The central competent authority shall send new vehicle random testing data to the name and address of the company contact person.
3. Pertaining motorcycle configuration data

Motorcycle configuration	Estimated sales in Taiwan ROC	Maximum engine power output		
		Horsepower	rpm	Testing method
Total				

Remarks:

In the three tables the unit for maximum engine power shall be clearly noted (kWorps)

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table C
			Paging	Date
			Number of revisions	Date of revision

Vehicle name at time of sale	Emission control system designation	Basic engine designation	Transmission system designation	Inertial weight class (kg)	Motorcycle configuration

Remarks:

Please use the following abbreviations to identify emission control system terms:

PMP= air pump for air injection
PLS=pulsating air injection system
EGR=exhaust gas recirculation
THM=thermal reactor
OXD=oxidation catalyst
RED=reduction catalyst
3CL=three-way catalyst, closed loop
3WY=three-way catalyst
CAN=carbon canister
RET=retardation system (e.g. Dashpot, throttle opener etc.)e.g. dashpot, throttle opener etc.))
OTR=other devices

For example:OXD EGR PMP 3CL CAN-1 andOXD EGR PMP 3CL CAN-2

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table D
			Paging	Date
			Number of revisions	Date of revision

Basic Engine Information

1. Basic engine designation _____
2. Combustion cycle (two-stroke engine or four-stroke engine) _____
3. Cylinder block configuration (namely V-type, upright, flat) _____
4. Cylinder capacity _____
5. Cooling system type (air-cooled, water-cooled) _____
6. Air intake valve and exhaust valve (four stroke)
   1. Number of valves per cylinder, intake/exhaust _____
   2. Intake valve (angle) αi _____
      βi _____
   3. exhaust valve (angle) αe _____
      βe _____
7. Location of intake port and exhaust port (two-stroke engine)
   1. Number of ports per cylinder, intake/exhaust _____
8. Air supply method (natural air supply/pressurized air supply _____
9. fuel supply method (carburetor, fuel injection) _____
10. Cylinder bore (mm) _____
11. Stroke (mm) _____
12. Emission volume (cm^3) _____
13. Compression ratio (normal value) _____
14. Four-stroke engine valve head diameter (intake/exhaust) _____
15. Surface of intake/exhaust port (mm^2) _____
16. Valve timing (crank angle) or exhaust timing _____
    1. Opening" intake/exhaust _____
    2. Closing: intake/exhaust _____
    3. Maximum upstroke (mm) _____
17. Internal cooler ☐ Yes ☐ No

Remarks:

For each basic engine of this engine family separate forms shall be filled out. If engines are identical (with a previously described engine), the information of the said engine may be specified for reference.

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table E
			Paging	Date
			Number of revisions	Date of revision

Transmission system information

1. Transmission system designation _____
2. Gearbox type (manual/automatic) _____
3. Number of gears _____
4. Gearshift method (namely circulatory, international …) _____
5. drive mode _____
6. Tire size _____
   1. Standard equipment: _____
   2. Optional equipment: _____
7. Final reduction ratio _____
   1. Primary reduction ratio _____
   2. Secondary reduction ratio _____
   3. Total reduction ratio (highest gear) _____
8. Gear ratios _____
   1. Gear No. 1 _____
   2. Gear No. 2 _____
   3. Gear No. 3 _____
   4. Gear No. 4 _____
   5. Gear No. 5 _____
   6. Gear No. 6 _____
9. Vehicle speed (standard tires) at rpm4000 rpm engine revolutions (When vehicle speed deviation does not exceed ±8%, vehicle configurations shall be considered as identical) _____
   - Gear No. 1 (km/h) _____
   - Gear No. 2 (km/h) _____
   - Gear No. 3 (km/h) _____
   - Gear No. 4 (km/h) _____
   - Gear No. 5 (km/h) _____
   - Gear No. 6 (km/h) _____

Remarks:

Separate forms are required for each transmission system

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table F
			Paging	Date
			Number of revisions	Date of revision

Description of the emission control system

1. Emission control system designation _____
2. Emission control system

   Fuel and air supply system

   1. Make and type designation _____
   2. Configuration and operation method

      Fuel tank filler inlet restrictor device — See Table F, Page _____

      Fuel metering system, transient enrichment system, idle stop configuration, starting and warm up enrichment system and hot idle compensation system, inlet manifold and air inlet temperature control system, as applicable — See Table F, Page _____
   3. Calibration — See Table F, Page _____

   Ignition system

   4. Make and type designation _____
   5. Configuration and operating method — See Table F, Page _____
   6. Calibration — See Table F, Page _____

Remarks:

Separate forms are required for each emission control system

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table F
			Paging	Date
			Number of revisions	Date of revision

Description of Emission Control System (continued)

2. 7. Indicate devices included in the emission control system.

- ☐ Reduction device
- ☐ Oxygen sensor
- ☐ Oxidation catalyst
- ☐ Reduction catalyst
- ☐ Three-way catalyst
- ☐ Air injection, air pump
- ☐ Exhaust gas recirculation

8. Configuration and operating method
   Emission-related data for each component — See Table F, Page _____
9. Calibration — See Table F, Page _____

3. Crank case emission control system
   1. Configuration and operating method — See Table F, Page _____
   2. Calibration — See Table F, Page _____
4. Evaporative emission control system
   1. Name of evaporative emission control system
   2. Configuration and operating method — See Table F, Page _____
   3. Calibration — See Table F, Page _____

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table G
			Paging	Date
			Number of revisions	Date of revision

Location Of Emission Control System On Vehicle

1. Emission control system designation _____
2. Motorcycle configuration _____
3. Photograph or other method showing the location of emission control components in the vehicle
   The photograph shall state the configuration designation and emission control system items in a clearly visible location. Each component shall be marked with text or numbers that shall be found in the part identification list.
   The location of parts that cannot be shown shall also be described. See Table G, Page _____
4. Schematic drawing of vacuum hose routing See Table G, Page _____
5. Part identification list (mass production parts)Emission-related parts recorded in Appendix F shall be identified with the same name and identification number found on the part.
   The said information shall also include the letters or numbers pursuant to the regulations of Item 0.3 so that the location of each part can be identified by photograph. See Table G, Page _____

Remarks:

Separate forms are required for each emission control system

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table H
			Paging	Date
			Number of revisions	Date of revision

Adjustable Parameters And Recommended Settings

1. Motorcycle configuration _____
2. List emission pollutant-related parameters that can actually be adjusted (including parameters that cannot easily be accessed) See Table H, Page _____
3. Recommended setting with tolerances for readily accessible adjustable parameters See Table H, Page _____
4. Factory settings with tolerance range for parameters that are not easily accessible due to refitting prevention devices. See Table H, Page _____
5. Description of measures taken to limit or prevent random access to emission-related adjustable parameters. See Table H, Page _____

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table I
			Paging	Date
			Number of revisions	Date of revision

Provide emission-related manuals for the vehicle owner

1. Motorcycle configuration _____
2. Instructions on how to start the car — See Table I, Page _____
3. How to use the gearshift device — See Table I, Page _____
4. Recommended fuel type _____
5. Recommended tire pressure _____
6. Other emission-related operating manuals necessary to ensure the effective operation of the emission control system. — See Table I, Page _____
7. Emission-related maintenance manual (including preparatory moves before the vehicle's handover to the owner and service deadlines) to ensure that the vehicle is able to comply with Emissions Standards when used. — See Table I, Page _____
8. A photocopy of the commitments to the vehicle owner to be provided in accordance with these Regulations. — See Table I, Page _____
9. Original Chinese-language labels to be affixed to a prominent place on the motorcycle in accordance with these Regulations. — See Table I, Page _____
10. Original Chinese-language vehicle owner's manual — See Table I, Page _____

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table J
			Paging	Date
			Number of revisions	Date of revision

Summary Of Testing Data And Deterioration Factors

1. Emission data

Test vehicle serial number	Motorcycle configuration	Emission testing results multiplied with deterioration factors				Evaporation test	Idle testing		Smoke testing
		CO g/km	HC g/km	NO_x g/km	HC+NO_x g/km	HC g/test	CO %	HC ppm	%
Standard value									

Remark: The smoke test shall temporarily be not implemented until the central competent authority announces smoke test procedures.

2. Deterioration factors

Test vehicle serial number	Motorcycle configuration	Deterioration factors		
		CO	HC	NO_x

Remarks:

□ The deterioration factors follow the test results in accordance with the “Motorized Bicycle Durability Testing Methods and Procedures”.

□ Deterioration factors shall use specified deterioration factors.

□ Deterioration factors shall consist of deterioration factors calculated or converted from factory endurance test data.

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table K
			Paging	Date
			Number of revisions	Date of revision

Emission testing report and deterioration factor approval letter

1. Emission testing data
   The test report for test vehicles that have been selected in accordance with these Regulations shall include the following information:
   - Test number and test date
   - Test vehicle identification (motorcycle configuration, test vehicle serial number, chassis number, engine number, system kilometers, odometer reading)
   - Setting of emission-related engine components
   - Idle pollutant emission testing results
   - Pre-adjustment method
   - Use of gearshift device (shift timing)
   - Testing conditions (inertia, road resistance, tire pressure, tire brand)
   - Ambient conditions (atmospheric pressure and temperature, etc.)
   - Driving pollutant emission testing results — See Table K_____ Page
   - Evaporative emission testing results — See Table K_____ Page
   - Crankcase testing results — See Table K_____ Page
2. Deterioration factor approval letter
   Deterioration factor approval letter approved by the central competent authority — See Table K_____ Page

Remarks:

If other gearshift modes are used than those specified in the testing methods the central competent authority shall be asked for prior approval.

Environmental Protection Administration	審驗合格證明申請表格 APPLICATION FORM	引擎族 Engine Family	Number of pages	Table L
			Paging	Date
			Number of revisions	Date of revision

Revision index

Revision number	Revision date	Appendix/page(s)	Description of revision