



REPUBLIC OF THE PHILIPPINES
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION OFFICE
 East Avenue, Quezon City

E-mail Address: lic@mailbox.lto.gov.ph • Website: www.lto.gov.ph

RECORDS & COMMUNICATIONS UNIT
 TO BE RECORDED
 DATE: 1/4/2021 TIME: 7:39PM

MEMORANDUM CIRCULAR NO: 2020-2240

SUBJECT: PRIVATE MOTOR VEHICLE INSPECTION STANDARDS AND IRR

DATE : 29 DECEMBER 2020

Pursuant to the Republic Act No. 4136 (Land Transportation and Traffic Code of the Philippines), Republic Act No. 8749 (Philippine Clean Air Act of 1999), Republic Act No. 8750 (Seat Belt Use Act), Republic Act No. 10916 (Road Speed Limiter Act) and other related laws, the following rules and regulations governing the inspection of motor vehicles in the Private Motor Vehicle Inspection Centers (PMVICs) are hereby promulgated for the guidance and observance of all concerned:

Section 1. OBJECTIVES:

- 1.1 To provide a systematic, reliable and effective testing of motor vehicles through computerization and automation for compliance to safety and emission requirements
- 1.2 To comply with existing motor vehicle standards, provision of national law and international agreements
- 1.3 To ensure compliance to safety and emission standards
- 1.4 To integrate all motor vehicle inspection reports into a central motor vehicle database.

Section 2. COVERAGE:

This order prescribes the rules and regulations in the inspection of all motor vehicles as a requirement in the motor vehicle registration, modification (change body design/configuration) and miscellaneous motor vehicle registration transactions such as but not limited to change ownership, change chassis and/or engine, and other related matters in the LTO.

U.P. LAW CENTER
 OFFICE of the NATIONAL ADMINISTRATIVE REGISTER
 Administrative Rules and Regulations
 RECEIVED
 JAN 05 2021
 TIME BY

Section 3. DEFINITION OF TERMS:

3.1 Compression-ignition Engine- means an internal combustion engine in which atomized fuel temperature is raised through compression, resulting in ignition, e.g., diesel engines.

3.2 Emission – means any measurable air contaminant, pollutant, gas stream or unwanted sound from a known source which is passed into the atmosphere.

3.3 Electric Vehicle (EV) – vehicles that are propelled by an electric motor(s) and are powered by fuel cells (e.g. electric cars, electric buses).

3.4 Light Electric Vehicle (LEV) – shall be defined as two-wheeled or three-wheeled electric vehicle

3.5 Low Speed Vehicle (LSV) – shall be defined as four-wheeled motor vehicle (other than ATVs, Hybrid vehicles, trucks, buses and all those that are excluded from the term "motor vehicle" under Republic Act 4136) which used alternative fuels like electricity and whose maximum speed capacity is not more than 40 kilometer per hour.

3.6 Motor Vehicle – shall mean any vehicle propelled by any power other than muscular power using the public highways, but exempting road, rollers trolley cars, street-sweeper, sprinklers, lawn mowers, bulldozers, graders, fork lifts, amphibian trucks and cranes, if not used on public highways and vehicles that run only on rail or tracks and tractors, trailers and traction engines of all kinds used exclusively for agricultural purposes

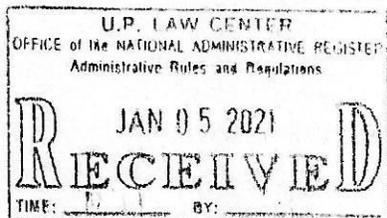
3.7 Miscellaneous Motor Vehicle Registration Transactions – shall refer to transaction by which the DOTr/LTO collects fees and charges, other than for motor vehicle registration.

3.8 Motor Vehicle Modification – shall refer to the allowable alteration/changes that can be done in the motor vehicle's body design and configuration which shall be subject to the inspection by the LTO. Only stock and/or OEM vehicles shall be allowed inspection at the PMVIC

3.9 PMVIC – shall refer to the Private Motor Vehicle Inspection Center wherein the activities of MVIS are being done.

3.10 MVIS – LTO Motor Vehicle Inspection System which uses an automated and fully computerized test equipment for roadworthiness and smoke emission of motor vehicles.

3.11 Motor Vehicles Inspection System Report (MVISR) – shall mean an inspection report issued by LTO-MVIS and PMVIC to all motor vehicles that went through



the inspection process of MVIS.

3.12 Spark Ignition Engine - means an internal combustion engine in which the air/fuel mixture is ignited by spark.

3.13 Driving Beam (Main Beam) Headlamp - means the lamp used to illuminate the road over a long distance ahead of the vehicle.

3.14 Passing Beam (Dipped Beam) Headlamp - means the lamp used to illuminate the road ahead of the vehicle without causing undue dazzle or discomfort to incoming drivers and other road-users.

3.15 Direction-Indicator Lamp - means the lamp used to advise other road users that the concerned driver intends to change direction to the left or to the right.

3.16 End-outline Marker Lamp - means the lamp fitted near to extreme outer edge and the top of the vehicle and intended to indicate clearly their vehicles over-all width.

3.17 Reversing Lamp - means the lamp used to illuminate the road to the rear of the vehicle and to warn other road users that the vehicle is reversing or about to reverse.

3.18 Sound Level Meter - measures sound pressure level commonly used in noise pollution for quantification of industrial and environmental noise.

3.19 Handheld Web/PC Camera - a web camera used for uploading of picture of all motor vehicle at Respiratory Server in a real-time-online basis.

3.20 Side-Marker Lamp - means a lamp used to indicate the presence of the vehicle when viewed from the side. The color of the lamp shall be amber.

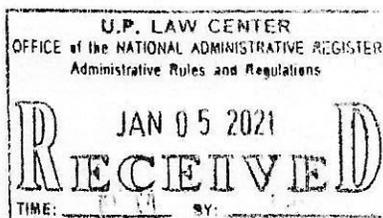
3.21 Stop Lamp - means the lamp used to indicate to other road users to the rear of the vehicle that the driver is applying the service brake.

3.22 Retro-Reflectors - means a device used to indicate the presence of a vehicle by the reflection of the light emanating from a light source not connected to the vehicle, the observer being situated near the source not connected to the vehicle, the observer being situated near the source.

3.23 Front fog lamp - means the lamp used to improve the illumination of the road in case of thick fog, falling snow, heavy rain or similar conditions.

3.24 Rear fog lamp - means the lamp used to make the vehicle more visible for the rear in case of thick fog, falling snow, heavy rain or similar conditions.

3.25 MVIT - means the Private Motor Vehicle Inspection Center Technician, the person authorized to conduct the vehicle inspection for the PMVIC.



Section 4. INSPECTION PERIOD

4.1 Schedule of Inspection

Except for motor vehicles covered by Administrative Order No. 010-2005 (Re: Initial Registration Scheme for Brand New Motor Vehicles valid for three (3) years and LTO Memorandum Circular No. 575-2005 (Re: Implementing Rules and Regulations of Administrative Order No. 010-2005 on the Initial Registration Scheme for Brand New Motor Vehicles valid for three (3) years), inspection of motor vehicles may be conducted within a period of sixty (60) days prior to registration.

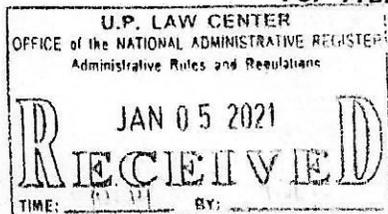
For motor vehicles which passed the inspection, the MVISR shall be issued which shall be valid for a period of sixty (60) days from date of actual inspection. Within the same period, the said MVISR shall be represented to the LTO District Office as part of the documentary requirement for initial or renewal registration, modification and miscellaneous transactions, of motor vehicle, as the case maybe.

The MVISR shall also be issued for motor vehicles which did not pass the inspection as guide for the necessary repairs to be done. After completion of the repairs to correct the failed items, the vehicle shall be re-inspected for the said failed items.

4.2 Frequency of Inspection

Type of Motor Vehicle Inspection	Initial Inspection	Renewal Inspection	Others
1. Private Vehicle a. Brand New	Exempted	After three (3) years, and annually thereafter	
b. Rebuilt and In-Use Imported	Before initial registration	Annually	
2. Government a. Brand New	Exempted	After three (3) years, and annually thereafter	
b. Rebuilt and In-use Imported	Before initial registration	Annually	
3. Diplomatic	Exempted	After three (3) years, and annually thereafter	
4. Franchise Vehicle*	Before initial registration	Annually	Semi-Annually after five-years

**For Franchise Vehicle the First Inspection shall be before the*



registration of the motor vehicle, while the Second inspection shall be determined by the Land Transportation Franchising Regulatory Board (LTFRB).

Section 5. MOTOR VEHICLE INSPECTION SYSTEM

5.1 PURPOSES OF INSPECTION

5.1.1 To establish the identity, classification and ownership of a motor vehicle.

5.1.2 To determine the conformity of the motor vehicle to the prescribed minimum and maximum dimension and weight, and required roadworthiness and emission safety standards.

5.1.3 To encourage appropriate maintenance by vehicle owners.

5.2 CATEGORIES OF MOTOR VEHICLE INSPECTION

5.2.1 Initial Inspection – inspection for newly operation vehicle, excluding brand new ones (to be done at LTO).

5.2.2 Renewal Inspection – inspection for renewal of registration

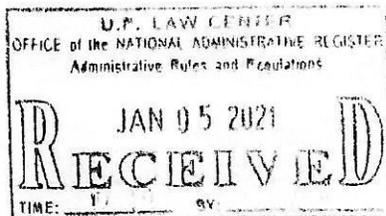
5.2.3 Modification Inspection – inspection of motor vehicles with modifications in dimensions, structures and changes in engines/chassis, color, and related transactions (to be done at LTO).

5.2.4 Corrective Measures Inspection – inspection of Motor vehicles which are subject of roadside apprehension due to non-compliance to safety and emission standards.

5.2.5 Re-Inspection – for motor vehicles that failed the inspection, repeat inspection of failed items shall be done, after corrective measures were completed.

5.3 SUGGESTED STAGES OF INSPECTION

The inspection of motor vehicles under PMVIC shall cover the following three (3) stages, namely:



- **Stage I** – Confirmation of Identity of the Vehicle
- **Stage II** – Above Carriage Inspection & Under Carriage Inspection
- **Stage III** – Machine Inspection

All the inspection items must be checked and validated.

5.4 STANDARDS AND METHODS OF INSPECTION

5.4.1 Stage I. Confirmation of Identity of Vehicle

At the start of the inspection, the authorized MVIT shall log in using the fingerprint scanner to conduct and validate the inspection for the vehicle. The MVIT shall be a certified NC2 TESDA technician and will be responsible for the vehicle that he inspects from start to finish of the test.

Initially, the vehicle information and specifications will either be manually encoded or downloaded using the RFID scanner.

However, once all vehicles are issued with RFID stickers and/or tags, manual encoding will not anymore be allowed.

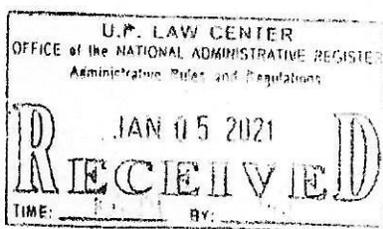
5.4.1.1 Inspection Standards

5.4.1.1.1 Chassis and engine/motor number are not tampered and does not show sign of tampering.

5.4.1.1.2 Engine number is the same as the engine number in the current Original Certificate of Registration except in case of motor vehicles covered by Administrative Order No. 010-2005 and LTO Memorandum Circular No. 575-2005.

5.4.1.1.3 Chassis number is the same as the chassis number in the current Original Certificate of Registration except in case of motor vehicles covered by Administrative Order No. 010-2005 and LTO Memorandum Circular No. 575-2005.

5.4.1.1.4 The make/type, model, plate number and sticker of the motor vehicle presented for inspection are the same as the information reflected in the current Original Receipt/Certificate of Registration.



5.4.2 Stage II. Above Carriage Inspection and Under Carriage Inspection

After validation of the vehicle identity, the MVIT conducts Visual Checks on the vehicle which are divided into two (2) Categories:

1. Above Carriage Safety Inspection. This includes inspection of the wipers, windshield, signal lights, etc.
2. Under Carriage Inspection. This includes engine leaks, transmission leaks, ball joints, bearings, etc.

Above Carriage Inspection Items

5.4.2.1 Body and Frame Structure

5.4.1.2.1 Length, Width, Height and Axle Height – The maximum dimensions and axle weight of an MV shall not exceed the following measurements:

5.4.2.1.1.1 Maximum length
Freight vehicles w/ two axles -10 meters
Passenger vehicle w/ two axles – 11 meters
Vehicle w/ 3 or MORE axles – 14 meters

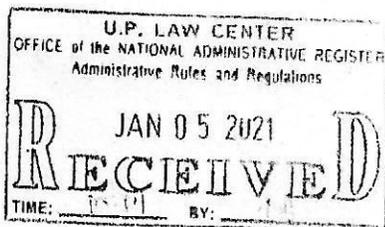
5.4.2.1.1.1 Maximum width – 2.5 meters

5.4.2.1.1.1 Maximum height – 4.0 meters

5.4.2.1.1.1 Maximum Axle Weight – 13,500 kgs

5.4.2.1.2 Frame and Body Appearance

The frame of motor vehicle consists of two (2) pieces of long metal, one each side running through the length thereof, and joined at the front and rear by cross members. Frames vary in type and construction depending on the make of the vehicle. There are vehicles where the frame is a part of the floorboard of the body. In the case, there is usually a short stub frame at the extreme front and back of the vehicle to support the suspension. The latter is called the integral



frame and body construction.

5.4.2.1.2.1 The frame and the body shall be capable to fully withstand the operation of the vehicle. No major corrosion shall have eaten the body panel or component that will cause injury when grazed or contacted.

5.4.2.1.2.2 The body shall be firmly secured to the frame to withstand vibration and impact. No unsafe modification shall be done.

7.4.2.1.2.3 The shape/external contours of the body shall be free from any short edge or rotating protrusion.

7.4.2.1.2.4 No exhaust fumes shall be permitted to enter the passenger compartment.

5.4.2.1.3 Riding Accommodation – Motor vehicles provided with passenger compartment shall comply with the following requirements:

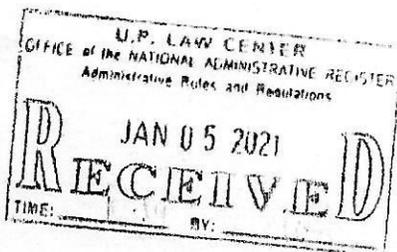
5.4.2.1.3.1 The passenger compartment shall be constructed in a manner that shall ensure safe boarding and not cause the passengers to fall off or stumble because of vibration, impact, etc.

5.4.2.1.3.2 The driver's and passenger's compartment shall be so constructed as to allow necessary and sufficient ventilation.

5.4.2.1.3.3 Seats shall be provided for riding accommodation and should be upholstered for passenger comfort.

5.4.2.1.3.4 The driver's seat shall be constructed that the driver shall have a full view necessary for driving, and that he can control the operation of the vehicle without being hindered by passengers or loaded goods.

5.4.2.1.3.5 The passenger compartment shall be equipped with bright white colored light



5.4.2.1.3.6 The floorboard shall be in such condition as not to cause the passenger to fall down from the motor vehicle and cause the dust, water and dirt to get into the passenger compartment.

5.4.2.1.3.7 The compartment for driver and passengers shall have an entrance that can be securely closed and opened easily.

5.4.2.1.4 Goods-loading Accommodation – The goods loading accommodation of a motor vehicle shall be secured and constructed that it shall enable safe and reliable loading of goods.

5.4.2.2 Seatbelts and Anchorage

All motor vehicle shall be equipped with seatbelts in accordance with RA 8750 and its implementing rules and regulations and other existing laws, rules and regulations.

5.4.2.3 Parking Lamp

All motor vehicles shall be provided with parking lamps on each side at both and the front and rear of the vehicle.

5.4.2.3.1 The parking lamps shall be wired that all of them will be lit simultaneously.

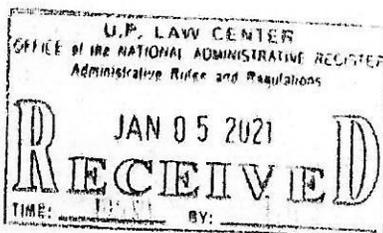
5.4.2.3.2 The parking lamps shall be wired that they may turned on while the engine is not in operation.

5.4.2.3.3 The color of the front parking lamps shall either be white, yellow or amber

5.4.2.3.4 The rear parking lamps shall be colored red.

5.4.2.4 End-Outline Marker Lamp (Clearance Lights)

All trucks, trailers, buses and other heavy-duty vehicles shall



be provided with end-outline marker lamp mounted on the extreme edges of the roof to show the maximum height and width of the vehicle.

5.4.2.4.1 The color of the end-outline marker lamp shall be white, light yellow or amber.

5.4.2.4.2 End-outline marker lamp shall be mounted symmetrically on the left and right portion of the vehicle.

5.4.2.5 Driving Beam (Main Beam) Headlamp and Passing Beam (Dipped Beam) Headlamp

5.4.2.5.1 Motor vehicle shall be equipped in each side of the front with an even number of white or selective-yellow light capable of adequately illuminating the road at night in clean weather.

5.4.2.5.2 When all lamps are lit at the same time, the headlamps shall have such intensity that the driver may discern any obstacle on the road.

5.4.2.5.3 They shall be mounted symmetrically on the left and the right portion of the vehicle.

5.4.2.5.4 The dimmed or dipped beam shall have, when all of them are lit at the same time, such intensity that the driver may discern any obstacle on the road.

5.4.2.5.5 The main photometric axis of the beam of a headlamp shall be directed downward or shall be capable of being directed downward by a headlamp aim.

5.4.2.5.6 The lamps shall be mounted so that the aim may not be readily disturbed by vibration and shocks.

5.4.2.6 Direction-Indicator Lamp

5.4.2.6.1 All vehicles shall be equipped with direction-indicator lamp at the right and left side of the vehicle and at the front and rear of the vehicle.

U.P. LAW CENTER
OFFICE of the NATIONAL ADMINISTRATIVE REGISTER
Administrative Rules and Regulations
JAN 05 2021
RECEIVED
BY:

5.4.2.6.2 The color of the front direction-indicator lamp shall be yellow or amber; rear direction indicator lamp shall be red yellow or amber when in operation.

5.4.2.6.3 The lamps mounted on each side of the vehicle shall be wired so that they may flash in time with hazard warning lamps.

5.4.2.7 Reversing Lamp

Motor vehicles shall be provided with reversing lamps except 2-wheeled motor vehicles with or without side lamp.

5.4.2.7.1 Reversing lamp shall be wired that they may be turned on only when the transmission system is in reverse gear.

5.4.2.7.2 The number of reversing lamps of the motor vehicle shall be at least one but not more than two.

5.4.2.7.3 The color of the light of a reversing lamp shall be white.

5.4.2.7.4 The main axis of a reversing lamp for illuminating mainly the rear shall be directed downwards and shall not strike the level of the road.

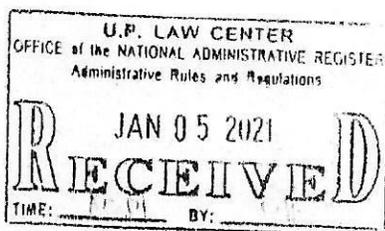
5.4.2.7.5 No reversing lamps shall cause undue inconvenience or glare to the other road users.

5.4.2.8 Number Plate Lights

5.4.2.8.1 Motor vehicle shall be provided with two (2) white number plate lights at the rear to illuminate such.

5.4.2.8.2 The number plate light shall be wired that that it may not be put off from the driver's seat or that it will be turned on whenever the headlamps or parking lamps are turned on.

5.4.2.8.3 The light shall render the plate number clearly visible at night.



5.4.2.9 Hazard Warning Lamp

5.4.2.9.1 Hazard warning lamps shall be wired so that all of them operate simultaneously and shall be colored amber.

5.4.2.9.2 Hazard warning lamps shall be mounted symmetrically to the longitudinal plane of vehicles

5.4.2.10 Tail Lamps

5.4.2.10.1 The rear of the vehicle shall be provided with tail lamps on both sides visible at night.

5.4.2.10.2 The color of tail lamps shall be red.

5.4.2.11 Stop Lamp

5.4.2.11.1 All motor vehicle shall be provided with stop lamp on each side at the rear except 2 or 3 wheeled motor vehicles where only one will suffice.

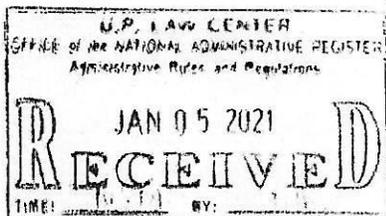
5.4.2.11.2 Stop lamps shall be wired that it may be turned on only when the brake system of a vehicle is applied and shall continue to be lit while the brake pedals are depressed.

5.4.2.11.3 The color of the light of the stop lamps shall be red.

5.4.2.11.4 The stop lamps in the combination with a tail lamp shall be wired that its luminous intensity that may increase 5 times or stronger than that of the tail lamp only when the brake system of a vehicle is applied.

5.4.2.12 Windshield/Window Glass

5.4.2.12.1 Windshield/window glass shall be made of a substance whose transparency does not deteriorate; these shall be such that they do not cause any appreciable distortion of object seen through the windscreen and that incase of



breakage, the driver still has a sufficient clear view of the road.

5.4.2.13 Wiper/Washer

5.4.2.13.1 Motor vehicle shall have an automatic windshield wiper or wipers and windshield washing system, where two or more wipers are provided, they shall operate together.

5.4.2.13.2 The windshield washing system shall be constructed that may eject an adequate amount of cleansing liquid to ensure a view in the immediate front of the windshield, when the surface of the windshield is soiled.

5.4.2.13.3 The windshield washing system shall not be likely damaged nor actuated as a result of vibration, impact, and other similar situation while running.

5.4.2.14 Horn

5.4.2.14.1 The horn shall not be siren or bell.

5.4.2.14.2 The horn shall be visually checked for functionality. The sound of the horn shall be continuous and the sound level and tone quality thereof shall be unchangeable.

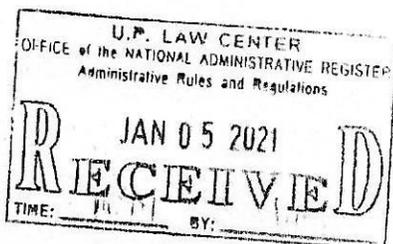
5.4.2.15 Retro-Reflectors

5.4.2.15.1 Motor vehicle (including trailers & three-wheeled vehicle) shall be provided with retro-reflectors on each side on the rear and visible at night.

5.4.2.15.2 Retro-reflector shall reflect red.

5.4.2.16 Number Plates

5.4.2.16.1 Motor vehicle shall display number plates at the designated location, one in front and one at the rear, except for two or three - wheeled motor vehicles which shall have one number plate at the rear.



5.4.2.16.2 The number plate shall be kept clean and cared or the firmly affixed to the vehicle in such a manner as will make it entirely visible, readable and eligible.

5.4.2.16.3 The number plate shall not be covered by colored or tinted plastic/glass casing or any other number plates.

5.4.2.17 Interior Light

5.4.2.17.1 Motor vehicle shall be equipped with at least one bright white light, minimum of 10 watts.

5.4.2.17.2 Buses shall have at least 4 bright white lights with a minimum of 10 watts each.

5.4.2.18 Floor Board

The floorboard of the vehicle shall be free from dust, water and dirt and shall not cause the passenger to tumble/fall in and from the vehicle.

5.4.2.19 Rear View/ Side Mirror

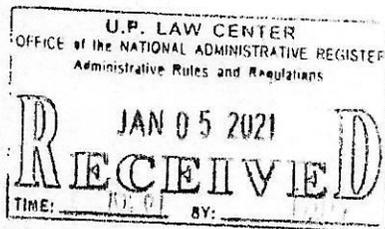
5.4.2.19.1 All motor vehicle shall be provided with rear view/side mirror on both sides of the vehicle, adjusted to give the driver when seated a clear view of the traffic conditions near the right side of the motor vehicle itself except the area which the driver in his seat may directly confirm.

5.4.2.19.2 Rear view mirrors should enable a driver to recognize clearly the traffic conditions at each side of the left and right of a two wheeled motor vehicle with or without sidecar.

5.4.2.20 Panel Gauges

5.4.2.20.1 The temperature, fuel, oil speedometer, odometer, and tachometer gauges shall be tamper-resistant and constructed in a manner that the driver will easily verify the readings in these instruments while driving.

5.4.2.20.2 The panel gauges shall be in working condition and shall be provided with a lighting device



or shall be luminous.

5.4.2.21 Brake System/Parking Brake

5.4.2.21.1 The brake system shall consist of at least 2 separate lines, which can function independently.

5.4.2.21.2 The braking system shall be secured that it shall fully withstand the operation and shall be fixed and may not be damaged by vibration, impact and similar condition.

5.4.2.21.3 The braking system shall be constructed so that its performance does not interfere with the steering system.

5.4.2.21.4 There shall be no welding or welded connection in any of the brake piping, brake lines or in any of the brake piping, brake lines or in any part of its hydraulic or pneumatic piping system.

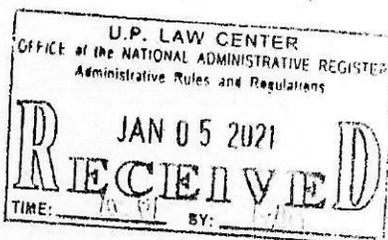
5.4.2.21.5 The service brake system shall be so constructed that even if a part of the brake piping (except the part of the piping which serves two or more wheels) is damaged the brake may still be applied to at least two wheels. This provision shall not apply to the service brake system of a motor vehicle provided with an emergency brake system (which means the brake system capable of applying the brakes to at least two wheels while running in case of a service brake system failure.)

5.4.2.21.6 The brake fluid shall not impair the function of the service brake systems due to brake pipe corrosion caused by the brake fluid or because of bubble formation caused by the heat.

5.4.2.21.7 The brake performance shall conform to the following requirements under an application of force of 90 kgs or less for the foot-operated type and 30 kgs or less in the case of hand operated type.

5.4.2.21.8 The parking brake shall be operated mechanically or electronically and capable of holding the motor vehicle stationary on a dry paved road.

5.4.2.22 Clutch System The clutch shall be capable of being engaged without slippage or shuttering.



5.4.2.23 Steering System

5.4.2.23.1 All parts and components of the steering wheel shall be well secured for the safe and efficient operation of the vehicle.

5.4.2.23.2 The steering wheel shall be constructed that it may be operated easily and safely by the driver in his normal driving position.

5.4.2.23.3 The steering wheel or any moving part of the steering linkages shall not make contact with any part of the motor vehicle such as chassis, frame, and fenders.

5.4.2.23.4 The ratio of turning angle of the steering wheel to the left or right shall be of no considerable difference to the steering angle of the time.

5.4.2.23.5 The steering wheel free play should not more than 45° degrees when turned to the left or right position.

5.4.2.23.6 There shall be no considerable difference between the steering forces when turning to the left or to the right.

5.4.2.24 Driver and Passenger Seat

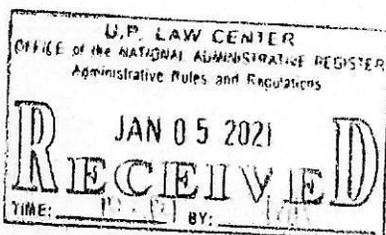
Seat for one passenger is at minimum of 35 cm wide and 60 cm long. The distance of one (1) end of the seat to the backseat (leg room) shall be 20 cm at minimum.

5.4.2.25 Tires/Wheels

7.4.2.25.1 There should be no fractures or welding defects.

7.4.2.25.2 The tire size, load capacity or speed category shall be in accordance with the requirements and must conform to the BPS-PNS 25 for tires and wheels.

7.4.2.25.3 Tires shall be free from any significant damages such as cracks or cuts to the base cords.



7.4.2.25.4 The tire wear indicator should not be exposed. Tires should not be regrooved to make it appear that the tread are still deep or the tread wear indicators were scraped.

7.4.2.25.5 Tires have safe useful life of five years. See to it that the tires are not yet "expired".

5.4.2.26 Wheel Bolts / Nuts

7.4.2.26.1 The wheel stud bolts and nuts must be complete and tight.

7.4.2.26.2 The wheel hub should not be damaged affecting the secure fixing of the wheels.

5.4.2.27 Fuel Tank/Fuel Tank Cap

5.4.2.27.1 The fuel tank and its pipings shall be secured to prevent damage due to vibration or impact.

5.4.2.27.2 The fuel tank and its pipings shall be constructed so that the fuel may unlikely leak significantly in the event of collision.

5.4.2.27.3 All fuel tanks shall be fitted with fuel tank cap.

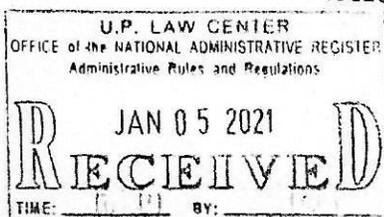
5.4.2.28 Fuel System

5.4.2.28.1 In the case of motor vehicles carrying passengers, the fuel tank and its pipings shall be constructed in such a way that the fuel will not leak remarkably in case of impact due to collision;

5.4.2.28.2 Regular steel shall be used for fuel tank. Under no circumstance shall plastic containers be used as fuel tank;

5.4.2.28.3 The filler and gas vent of a fuel tank shall be constructed in such a way that it shall be free from fuel leakage when the vehicle is jolted;

5.4.2.28.4 The filler and gas vent of the fuel shall not be located in the opening direction of the exhaust pipe and shall be



located not less than 30 centimeters away from the discharge opening thereof;

5.4.2.28.5 The filler and gas vent of a fuel tank shall not open into the inside of any passenger compartment.

5.4.2.28.6 The filler and gas vent of a fuel tank shall be located 20 centimeters or more away from any exposed electric terminal or switch.

5.4.2.29 Auxiliary Headlamp

In the presence of any auxiliary headlamp, the following requirements should be observed:

5.4.2.29.1 Each auxiliary headlamp should be wired independently and have separate switches.

5.4.2.29.2 The main beam of the auxiliary headlamp shall be directed downward but in no case towards the left side of the vehicle.

5.4.2.29.3 The color of the auxiliary headlamp shall be white.

5.4.2.29.4 The auxiliary headlamp shall be mounted in such a way that its aim will not be disturbed by vibration or shocks.

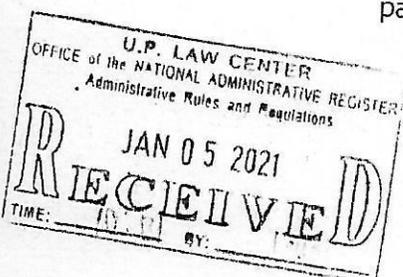
5.4.2.30 Fog Lamp

Fog lamps are optional on motor vehicles. However, should they be installed or fitted, the following should be strictly observed:

5.4.2.30.1 Lamps may be lighted only during instances of thick fog, falling snow, heavy rain or similar conditions. However, front fog lamps may be used as substitute for passing lamps.

5.4.2.30.2 Only two front fog lamps shall be allowed and should emit either white or selective-yellow light. However, in the case of motorcycles, only one front fog lamp shall be allowed.

5.4.2.30.3 Front fog lamps shall be fitted or installed below the passing lamps and in such a way that no point illuminated by the fog



lamps shall come into contact with any point illuminated by the passing lamps.

5.4.2.30.4 Rear fog lamps should emit only red light.

5.4.2.30.5 Fog lamps are prohibited on trailers. **5.4.2.30.6** The front fog lamps should have their own switches, independent from the main beam headlamps or dipped-beam headlamps or a combination of both.

5.4.2.31 Electrical System

5.4.2.31.1 The electrical wiring located inside the compartment and in the place where the gas container for liquefied petroleum gas (LPG)/CNG with a partition wall (such as the boot) is located shall be covered with an insulator and fixed to the body.

5.4.2.31.2 The electrical terminal switch and other electrical systems located inside the vehicle compartment, which- are likely to spark shall be suitably covered.

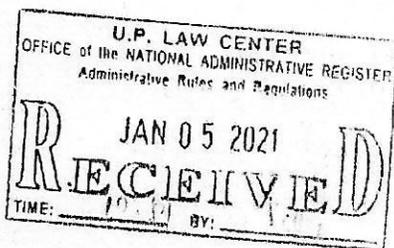
5.4.2.31.3 The battery should be fixed and should not be damaged by vibration, shock or similar incidents.

5.4.2.32 Control System

5.4.2.32.1 The control devices for engine and power train (such as the starter switch hand brake system, headlamps, direction indicator lamps, windshield wipers, emergency flasher and other vehicle control devices) including the operating position for each gear or range of transmission should be properly constructed and installed in a manner that they could be identified and recognized by the driver from his seat.

5.4.2.32.2 In case the turn signal control device (lever) is constructed as part of the steering column and steering wheel mechanism, said device should be located on the left side of the steering column.

5.4.2.33 Muffler System



5.4.2.33.1 All motor vehicles should have an exhaust/muffler system. The muffler/exhaust system is composed of engine, primary muffler or the silencer, secondary muffler and catalytic converter (if any).

5.4.2.33.2 The exhaust pipe should be secured, fixed, and free from any defects or leakage.

5.4.2.34 Motor Vehicle Air-Conditioning (MAC) System

The MAC of all motor vehicles shall be inspected in accordance with DENR AO 2004 - 08 (*Re: Revised Chemical Control Order for Ozone Depleting Substances*) and its implementing rules and regulations.

All motor vehicles with MAC System shall not be registered unless the following standards are complied with:

5.4.2.34.1 All motor vehicle model 1998 and below are allowed to use refrigerant type R12.

5.4.2.34.2 All motor vehicle model 1999 and above shall use refrigerant type R134A or other refrigerant type which are compliant to the Chlorofluorocarbon (CFC) phase out plan.

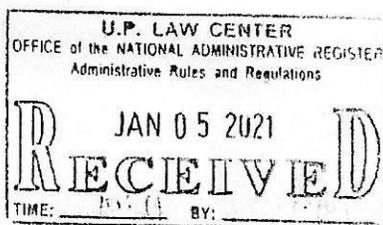
5.4.2.35 Early Warning Device

A motor vehicle must be equipped with an Early Warning Device which must conform with the provisions of LOI 229 (*Re: Directing the Installation of Early Warning Device on Motor Vehicles*).

Under Carriage Inspection Items

A 1.60 to 2.00-meter deep pit is used for underbody inspection of the motor vehicle to determine the condition of the following parts of the vehicle through visual inspection.

5.4.2.36 Joint Play Test - The joint play tester is for visual inspection of the mechanical condition of axle components, stub axles, steering pivot joints and bearing of a vehicle.



5.4.2.37 Radiator - shall be free from any water leakage and shall be fitted with a radiator cap.

5.4.2.38 Engine bracket/mounting - shall be free from deterioration and damage. Shall not be excessively loose and/or fractured.

5.4.2.39 Engine leakage - shall be free from oil leakage.

5.4.2.40 Transmission leakage - shall be free from oil leakage.

5.4.2.41 Steering balljoints - shall be tight and free from damages

5.4.2.42 Steering linkages/box mounting - shall be tight and free from damages

5.4.2.43 Steering idler/sector shaft- shall be tight and free from damages

5.4.2.44 Front/rear shackle eyes/pins/bushes - shall have no visible cracks

5.4.2.45 Stabilizer/bushes - shall be free from rust

5.4.2.46 King pins and bearings - shall be tight

5.4.2.47 Front/rear suspension joints bushes - shall have no deformed bushings

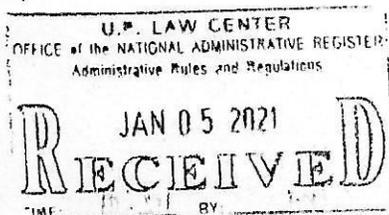
5.4.2.48 Rear linkages - shall be tight and have no cracks or deformed bushings

5.4.2.49 Fuel hose/pipes - shall be secured, fixed and free from leaks

5.4.2.50 Spring clips - shall have clip bolts

5.4.2.51 Shock absorber - shall have complete mounting bolts and with no sign of oil leakage and deformation

5.4.2.52 Drive shaft bolts/nut - shall have complete bolts, be tight, and with no sign of deformation



5.4.2.53 Differential leakage - shall be free from any oil leakages

5.4.2.54 Propeller shaft coupling - shall be tight

5.4.2.55 Exhaust pipe and silencer - shall be free from damages

5.4.2.55.1 The exhaust pipe of motor vehicle shall not have its opening towards the plate nor shall it be directed towards the compartment.

5.4.2.55.2 The exhaust pipe shall be located in a place where it will not cause fire to the motor vehicle nor obstruct the function of the other systems of the vehicle such as the braking system or the electrical system.

5.4.2.56 Chassis frame - shall be free from cut and weld connection, damages, corrosion, and deformation

5.4.2.57 Chassis cross member - shall be free from damages, corrosion and deformation

5.4.2.58 Body Floor Board - shall be free from holes, cracks and rust

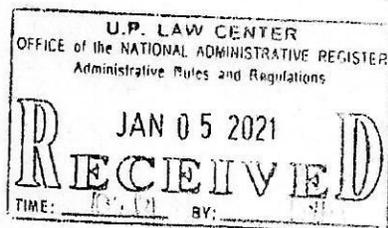
5.4.2.59 Power steering leakage - shall be tight and with no sign of leakage

5.4.2.60 Parking brake wire - shall be functional and properly installed

5.4.2.61 Brake hoses/pipes/cylinders - shall be free from leakage, damage and welding

5.4.2.62 Spring U bolts/nuts - shall be complete and tight

5.4.2.63 Spare tire wheel carrier (if fitted) - the spare wheel shall be securely fixed in the carrier and shall not be at risk of falling off.



5.4.2.64 Stand (for Motorcycles) – the stand shall not be missing, loose or badly corroded. There shall be no risk of unfolding when the vehicle is in motion.

5.4.2.65 Handgrips and footrests (for Motorcycles) – the handgrips and footrests shall not be missing, loose or badly corroded.

After the completion of the inspection (above carriage and under carriage) the pass and fail items will be sent to the Inspection lane host computer.

5.4.3 Stage III. Machine Inspection

5.4.3.1 Side Slip Test

Automated Test Equipment (ATE) Sideslip Tester shall be used. The design of sideslip of the wheels shall be measured by running the motor vehicle on the platform of the tester.

The standard is (+) or (-) 7mm when running one meter.

5.4.3.2 Suspension Test

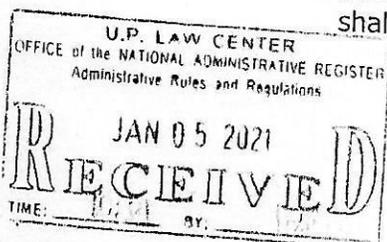
Automated Test Equipment (ATE) Suspension Tester shall be used. The suspension test measures the adhesion of light duty vehicle suspension system to the road surface. It measures the effectiveness of the shock absorbers on each wheel of the vehicle, checking the absolute damping levels and comparing the relative damping balance between the left and right side of each axle.

The adhesion measurement shall not be less than 21% of the minimum load over the static weight.

5.4.3.3 Roller Brake Test

Automated Test Equipment (ATE) roller brake tester shall be used.

5.4.3.3.1 The sum of the braking forces of the left and right wheels shall not be less than 50% of the axle weight.



5.4.3.3.2 The difference between the braking forces of the left and right wheel shall not exceed 10% of the axle weight.

5.4.3.3.3 The sum of the braking forces of the left and right wheel for the parking brake shall not be less than 20% of the total vehicle weight. The parking brake difference is not needed.

5.4.3.4 Speedometer Test

Speedometer Tester shall be used. The tester shall check the actual speed of the motor vehicle and the accuracy of the vehicle speedometer reading. The speed of the vehicle is stabilized for a couple of seconds at 30km/hr.

5.4.3.4.1 The speedometer should be located at a place where the driver can easily check the speed while the motor vehicle is running.

5.4.3.4.2 The speedometer should have a lighting device or luminous dial plate with pointer or a digital equivalent.

5.4.3.4.3 The speedometer should be glare-proof.

5.4.3.4.4 The standard is between 24 to 36 km/hr

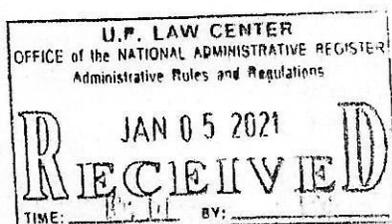
5.4.3.4.5 For motor vehicles with traction control which cannot be deactivated, the test speed will be at 20 km/hr with the standard between 16 to 24 km/hr. However, for motor vehicles with manufacturer installed safety features that preclude speedometer testing these vehicles shall be exempted.

5.4.3.5 Exhaust Emission Test

The standards and test procedure for smoke emission shall be in accordance with RA8749 (Clean Air Act) and its implementing rules and regulations.

5.4.3.5.1 Gasoline-Fed Motor Vehicle

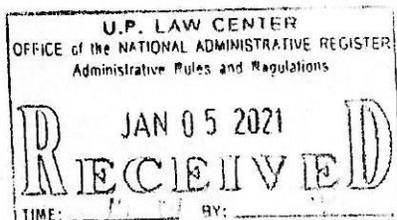
5 gas exhaust emission analyzer shall be used (HC, CO, CO₂, Nox, O₂). The test is for the determination of the concentration of carbon monoxide (CO) and hydrocarbon (HC) emission from in-use motor vehicle running at idle speed consistent with the Clean Air Act of 1999 (RA 8749).



Emission Standards for Vehicles with Spark-Ignition Engines (Gasoline)*		
Vehicle Registration (In-use, rebuilt and imported used passenger cars and light duty and heavy duty vehicles)	CO (% by Volume)	HC (ppm as Hexane)
Registered for the first time on or after July 1, 2017	0.25	100
Registered for the first time after December 31, 2007	0.5	250
Registered for the first time on or after January 1, 2003 but before January 1, 2008	3.5	600
Registered for the first time on or before December 31, 2002	4.5	800

Vehicle Registration (In-use, motorcycles, tricycles and mopeds)	CO (% by Volume)	HC (ppm as Hexane)
Registered for the first time on or after July 1, 2017	2.5	1000
Registered for the first time on or after January 1, 2012	3.5	4,500
Registered for the first time before January 1, 2012	4.5	6000

**at idle*



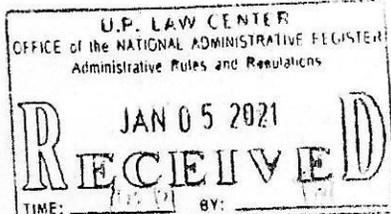
5.4.3.5.2 Diesel-Fed Motor Vehicle

Smoke opacimeter shall be used. The test is a 'smoke opacity measurement for in use motor vehicle using the free acceleration method.

Emission Standards for Vehicles with Compression-Ignition Engines (Diesel)** (light absorption coefficient, m^{-1}), k	
Vehicle Registration (In-use, rebuilt and imported used passenger cars and light duty and heavy duty vehicles)	Light absorption coefficient, m^{-1} , k
Registered for the first time on or after July 1, 2017	1.0
Registered for the first time after December 31, 2007	2.0
Registered for the first time on or after January 1, 2003 but before January 1, 2008	2.5
Registered for the first time on or before December 31, 2002	2.5 3.5 (turbocharged) '1.5 (1,000m increased in elevation)

Vehicle Registration (For motorcycles, tricycles and Mopeds)	Light absorption coefficient, m^{-1} , k
Registered for the first time on or after July 1, 2017	20% smoke opacity
Registered for the first time on or after January 1, 2012	30% smoke opacity
Registered for the first time before January 1, 2012	30% smoke opacity

* for spark-ignition (gasoline) motor vehicles



** *for compression-ignition (diesel) motor vehicles*

5.4.3.6 Headlight Test

Automated Test Equipment (ATE) headlight tester for Light Vehicles shall be used. The test is for the measurement of luminous intensity and the photometric axis or optical axis deviation of the vehicle's headlights.

The headlight test is conducted at high beam only.

The standards are as follows:

For the first year of implementation, the following shall be observed:

5.4.3.6.1 Luminous intensity

4-lamp type: 10,000 cd or more / 126,000 lm or more
2-lamp type: 10,000 cd or more / 126,000 lm or more

5.4.3.6.2 Deviation of optic axis direction at 10m forward:

A standard shall be established using data collected from the first 2 years upon effectivity of these standards.

For the second year of implementation, the following shall be observed:

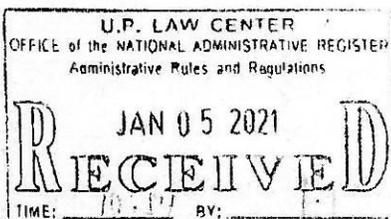
5.4.3.6.3 Luminous intensity

4-lamp type: 10,000 cd or more / 126,000 lm or more
2-lamp type: 10,000 cd or more / 126,000 lm or more

For the third year of implementation and onwards, the following shall be observed:

5.4.3.6.4 Luminous intensity

4-lamp type: 10,000 cd/800 lm or more
2-lamp type: 10,000 cd/800 lm or more



5.4.3.6.5 Deviation of optic axis direction at 10m forward:

A standard shall be established using data collected from the first 2 years upon effectivity of these standards.

For the motorcycles, a headlight tester which automatically measures for luminous intensity and photometric axis or axis deviation maybe used; the following shall be observed:

5.4.3.6.6 Luminous intensity

1-lamp type: 2,000 cd or more / 25,200 lm or more
2-lamp type: 2,000 cd or more/ 25,200 lm or more

5.4.3.6.7 Deviation of optic axis direction at 10m forward:

For the first two (2) years, all optic axis deviation data shall only be gathered for further analysis and establishment of standards.

5.4.3.7 Sound Level Meter (Exhaust Outlet)

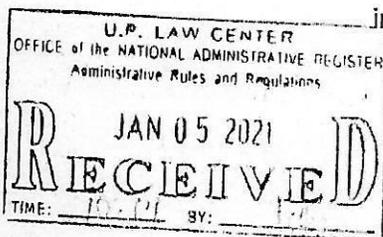
Sound Lever Meter measures sound pressure level and is commonly used in noise pollution for quantification of industrial and environmental noise.

The sound level of the motor vehicle for exhaust or muffler shall not exceed 99 dB, taken at an engine speed of 2,000 to 2,500rpm.

Positioning of the sound level meter

- a. At a 45-degree angle to the exhaust center line
- b. Parallel to the ground,
- c. 0.5m to the rear of the exhaust outlet, and
- d. At the same height of the exhaust outlet.

After the completion of all the machine inspections, the data will be sent to the host computer and together with the data of the visual inspections will be uploaded to the LTMS.



5.4.4 Issuance of Inspection Report

5.4.4.1 Motor Vehicle Inspection System Report (MVISR) shall be issued by PMVIC to all motor vehicles that had gone through inspection of the MVIS.

For vehicles with failed items, the MVISR will show the said failed items, for the owner to repair and correct,

For vehicles with which passed the inspection, the owner can proceed to the nearest LTO office for registration.

Section 6. ADDITIONAL REQUIREMENTS FOR SPECIAL TYPE OF VEHICLES AND RELATED VEHICLE INSPECTION GUIDELINES

6.1 OTHER INSPECTIONS

The Assistant Secretary for Land Transportation Office may deem it necessary to conduct additional inspections relevant to the motor vehicle safety. These inspections may include, but not limited to inclination angle measuring inspection and others.

6.2 LIGHT ELECTRIC VEHICLES (LEV)

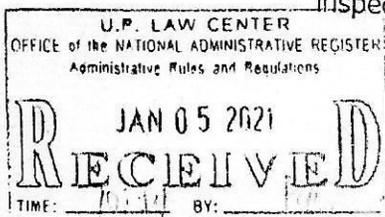
All Light Electric Vehicles (LEV) shall be inspected in accordance with AO 2006-01 (Re: Guidelines in the Registration of Light Vehicles [LEV]) and its implementing rules and regulations.

All motor vehicles that are powered or run solely by battery or electricity shall be exempted from the requirement of smoke emission testing in accordance with MC RIB 2007-852 (*Re: Exemption of Light Vehicles from Smoke Emission Test*).

Likewise for Hybrid vehicles which use battery power at idle speed, these shall be exempt from smoke emission test.

6.3 AUTO-LIQUIFIED PETROLEUM GAS (LPG)

All vehicles fueled solely or alternately by LPG or Auto-LPG shall be inspected in accordance with Memorandum Circular RIB-2007-891 (*Re:*



Implementing Rules and Regulations in the Initial Registration of Auto LPG Motor Vehicles).

The fill valve should be located outside the vehicle compartment and isolated from the auto-LPG container.

An appropriate sticker marked "LPG" should be posted on the fill valve cover for each unit installed and on the upper-left corner of the vehicle's windshield. The sticker posted on the windshield (aside from the "LPG" marking) should also bear a warning message that says "**not allowed to park on an enclosed parking space.**"

6.4 LOW SPEED VEHICLES (LSV)

All low speed vehicles shall be inspected in accordance with AO AHS 2008-14 (Re: Guidelines in the Registration of Low Speed Vehicles) and its implementing rules and regulations.

6.5 MOTORCYCLES (MC)

All motorcycles shall be "inspected in accordance with MC AHS 2008-01 (Re: Revised Rules and Regulations for the Use of Motorcycles -on Highways)

6.6. FRANCHISED VEHICLES

All franchised vehicles shall likewise be inspected in conjunction with LTFRB Memorandum Circulars and other related issuances.

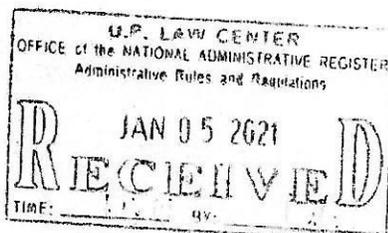
Section 7. INSPECTION SECURITY AND SAFETY MEASURES

The following shall be observed in order to ensure security and safety in the inspection process:

7.1 Real-time transfer of every stage inspection data to the PMVIC lane host computer for results uploading to LTO and printing as MVISR;

7.2 Fingerprint scanning of the authorized inspector will be required before every inspection; and

7.3 All inspectors shall be required to wear proper safety gear like helmet, gloves, masks and safety shoes while inside the PMVIC.



Section 8. MAINTENANCE AND CALIBRATION OF TESTING EQUIPMENT

8.1 Each PMVIC shall maintain the upkeep of the equipment as required and establish a Preventive Maintenance Program of test equipment in accordance with the manufacturer's standards.

8.2 Instruments and equipment requiring calibration or adjustment shall be calibrated and adjusted every six (6) months or earlier in accordance with the manufacturer's standards and of the Philippines National Standards (PNS), whichever becomes applicable.

8.3 Maintenance report shall be generated for every calibration, and logged in the individual test equipment maintenance ledger. The calibration certificates shall be compiled by the PMVIC for presentation to the monitoring team. Calibration shall be done by DOTR/LTO PROJECT MANAGEMENT OFFICE (PMO) - Accredited calibration entities.

Section 9. RECORDS KEEPING AND REPORTING

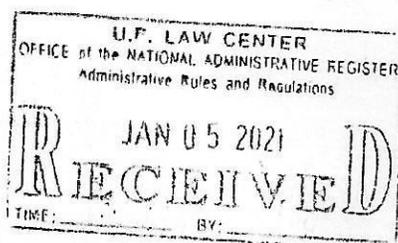
The PMVICs shall maintain and keep the records and data of all motor vehicles inspected. All inspection data shall be integrated to the LTO-MVIS database.

PMVIC shall submit a report of all inspected motor vehicles at the end of each month to the LTO Management Information Division; copy furnished the Office of the LTO Assistant Secretary and DOTr-LTO PMVIC Steering Committee and the Office of the Undersecretary for Road Transport.

Section 10. POST-INSPECTION PROCEDURES

10.1 Handling of Clients Complaints

To ensure that the complaints / feedbacks from the customers are recorded, monitored, analyzed and reported to the top management, a procedure which defined the actions and responsibilities of PMVIC Personnel shall be properly documented and submitted to the LTO Assistant Secretary and DOTr-LTO PMO Steering Committee.



10.2 Penalty Provision

The following violations, among others, shall be grounds for the imposition of the following penalties:

10.2.1 Non-compliance with the standards, methods and/or procedure of inspection as provided this Memorandum Circular and other related laws, rules and regulations;

10.2.2 Registering or causing the registration of a motor vehicle in violation of any of the provisions of this Memorandum Circular;

10.2.3 Reporting or certifying that a motor vehicle passed the standards set under the MVIS when, in truth and in fact, such is not the case;

10.2.4 Violating or preventing, by his act or omission, the enforcement or implementation of any of the provisions of this Memorandum Circular; and

10.2.5 Other omissions and violations to issuances promulgated by the LTO and DOTr relative to the motor vehicle inspection:

First Offense: PHP 200,000.00 and 30-day suspension

Second Offense: PHP 500,000.00 and 60-day suspension

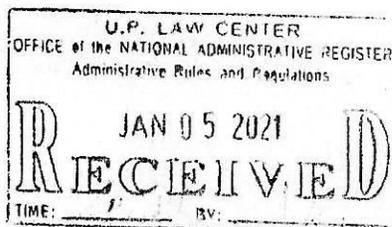
Third Offense: Cancellation of Authorization

10.3 Liability of Officials and Employees of the DOTr, its Sectoral Offices and Attached Agencies

Any official or employee who, after due notice and hearing, is found guilty of committing, conspiring and/or assisting in the commission of any of the violations in the preceding section, either willfully or through negligence, shall be administratively liable for offense(s) defined under the Civil Service laws, rules and regulations.

Section 11. REPEALING CLAUSE

All circulars, orders, memoranda, rules and regulations, or issuances in conflict herewith are deemed repealed or modified accordingly.



10.2 Penalty Provision

The following violations, among others, shall be grounds for the imposition of the following penalties:

10.2.1 Non-compliance with the standards, methods and/or procedure of inspection as provided this Memorandum Circular and other related laws, rules and regulations;

10.2.2 Registering or causing the registration of a motor vehicle in violation of any of the provisions of this Memorandum Circular;

10.2.3 Reporting or certifying that a motor vehicle passed the standards set under the MVIS when, in truth and in fact, such is not the case;

10.2.4 Violating or preventing, by his act or omission, the enforcement or implementation of any of the provisions of this Memorandum Circular; and

10.2.5 Other omissions and violations to issuances promulgated by the LTO and DOTr relative to the motor vehicle inspection:

First Offense:	PHP 200,000.00 and 30-day suspension
Second Offense:	PHP 500,000.00 and 60-day suspension
Third Offense:	Cancellation of Authorization

10.3 Liability of Officials and Employees of the DOTr, its Sectoral Offices and Attached Agencies

Any official or employee who, after due notice and hearing, is found guilty of committing, conspiring and/or assisting in the commission of any of the violations in the preceding section, either willfully or through negligence, shall be administratively liable for offense(s) defined under the Civil Service laws, rules and regulations.

Section 11. REPEALING CLAUSE

All circulars, orders, memoranda, rules and regulations, or issuances in conflict herewith are deemed repealed or modified accordingly.

