



REPUBLIC OF THE PHILIPPINES  
 DEPARTMENT OF TRANSPORTATIONS & CORRESPONDENCE UNIT  
**LAND TRANSPORTATION OFFICE**  
 East Ave., Quezon City

**LTO RECEIVED**  
 BY: Wing  
 DATE: 7-7-2020 TIME: 10:10 AM  
 GENERAL SERVICES SECTION

**MEMORANDUM CIRCULAR** 2020-2195

**To :** All Existing Operators of Alternate Motor Vehicle Inspection Stations, Subic Bay Freeport Zone, Olongapo City, Zambales. (AUTOTEC AUTOMOTIVE TESTING AND EMISSION CENTER; SUBIC BAY MOTOR VEHICLE INSPECTION CENTER, INC; & VEHICLE INSPECTION AND TESTING CORPORATION).

**SUBJECT :** GUIDELINES FOR THE UPGRADE OF THE EQUIPMENT AND FACILITIES OF THE ALTERNATE MOTOR VEHICLE INSPECTION STATIONS (ALTERNATE-MVIS)

**DATE :** 10 MARCH 2020

**WHEREAS**, The Land Transportation Office (LTO), pursuant to the provisions of Republic Act 4136 (Land Transportation and Traffic Code), is mandated to:

- a. Inspect and Register Motor Vehicles
- b. Issue Driver's Licenses and Permits
- c. Enforce Land Transportation Laws and Traffic Rules
- d. Adjudicate Traffic Violation Cases

**WHEREAS**, in the LTO's mandate to inspect and register motor vehicles, Section 16 of R.A. 4136 provides that,

*"xxxif on inspection as provided in paragraph (6) of Section four hereof, any motor vehicle is found to be unsightly, unsafe, overloaded, improperly marked or equipped, or otherwise unfit to be operated, or capable of causing excessive damage to minimum standards and specifications, the Commissioner (now, Assistant Secretary) may refuse to register the said motor vehicle, or if already registered, may require the number plates thereof, to be surrendered to him, and upon seventy-two hours' notice to the owner of the motor vehicle, suspend such registration until the defects of the vehicle are corrected and/or minimum standards and specifications fully complied with."*

**WHEREAS**, the LTO, under R.A. No. 8749 (The Philippine Clean Air Act), is likewise mandated to enforce the required emission standards for motor vehicles.

U.P. LAW CENTER  
 OFFICE of the NATIONAL ADMINISTRATIVE REGISTER  
 Administrative Rules and Regulations

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**WHEREAS**, the LTO issued Memorandum Circular No. RTL-MC-02402, setting the guidelines and procedures for the Accreditation of Alternate Motor Vehicle Inspection Stations for the Inspection/Testing of Used-Imported Motor Vehicles for the Purposes of Permit to Travel and Initial/First Registration.

**NOW, THEREFORE**, premises considered, the LTO hereby promulgates these Guidelines for the Upgrade of the Equipment and Facilities of the Alternate MVIS, as follows:

**SECTION 1. LANE REQUIREMENTS**

The Alternate MVIS shall have a minimum of One (1) Heavy Duty Vehicle (HDV) lane with an option for another lane for Light Duty (LV) Vehicles. The HDV lane could also be configured to test LV Vehicles.

The HDV Inspection Lane shall be of 3-Stage configuration.

**SECTION 2. TIMELINE**

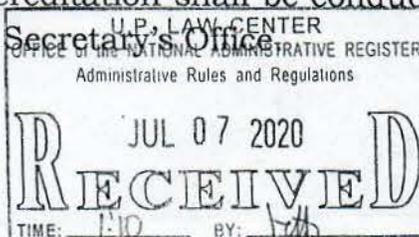
The Alternate MVIS shall have a period of not more than one-hundred fifty (150) calendar days to complete the upgrade and operationalization of their facilities.

**SECTION 3. NOTICE OF COMPLIANCE**

- A. Within three (3) calendar days upon completion of the upgrade of the facility, the Alternate MVIS shall submit a Notice of Compliance to the LTO. Upon Receipt of the Notice of Compliance, the LTO shall direct an Inspection Team, to be designated by the LTO Assistant Secretary, to conduct inspection of the upgraded facility within seven (7) calendar days.
- B. The Inspection Team shall submit the result of its inspection within three (3) calendar days from completion of the inspection.
- C. Within seven (7) calendar days from receipt of the Report from the Inspection Team, the LTO shall evaluate the Report and the Certificate to Operate and Accreditation shall be issued.
- D. The Accreditation shall be valid for a period of five (5) years from the issuance of the Accreditation Certificate and renewable every five (5) years thereafter upon compliance with the requirements to be set by the LTO.

**SECTION 4. RENEWAL OF ACCREDITATION**

The Alternate MVIS shall follow the existing procedure on the Renewal of Accreditation. The renewal of Accreditation shall be conducted by the LTO through the LTO Assistant Secretary's Office



**SECTION 5. ANNUAL FEE**

There shall be an annual fee of Php. 30,000.00 payable within 10 days before the end of the fiscal year.

In case of failure to file for renewal within the period prescribed, an administrative fine of Php. 25,000 shall be collected in addition to the renewal fee.

**SECTION 6. PERSONNEL**

- A. The Alternate MVIS Motor Vehicle Inspection Technician (MVIT) shall have a minimum of NC II TESDA Automotive Servicing Certification or its equivalent.
- B. The Alternate MVIS shall have at least Three (3) authorized MVIT per HDV lane, one for each stage.

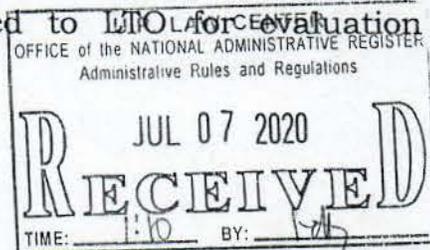
**SECTION 7. LIST OF INSPECTION EQUIPMENT**

Heavy Duty Vehicle (HDV) Lane and Light Duty Vehicle Lane

- 1. Headlight Tester (Full Automatic)
- 2. Roller Brake Tester
- 3. Sideslip Tester
- 4. Speedometer Tester
- 5. Emission Tester
- 6. Diesel Smoke Tester
- 7. Bar Code Scanner and/or RFID Reader
- 8. Bogie Rollers (for Tandem Differential Testing)
- 9. Axle Play Detector (Joint Play Tester)
- 10. Sound Level Meter (Sonometer)
- 11. Suspension Tester (for LV only)
- 12. Smoke Extraction System

**SECTION 8. STANDARD AND SPECIFICATION FOR MOTOR VEHICLE INSPECTION SYSTEM**

- A. The inspection equipment shall comply with international standards on health, safety and environmental protection (i.e. CE, ISO or its equivalent) and supplied by a legitimate equipment and service supplier:
- B. The inspection procedure must be completed within 30 minutes for each vehicle.
- C. Design of the control and software can be configurable to any number of stages or position of inspection.
- D. Test equipment should be easy to calibrate and maintain.
- E. PC interface or its equivalent for interfacing/IT connectivity
- F. The Alternate MVIS application software (equipment and I.T. connectivity) should be submitted to LTO for evaluation and compilation.



- G. There shall be a minimum of two (2) CCTVs to cover the entire process of testing including one (1) still camera to capture an image of the vehicle undergoing testing, as well as a Television Screen to monitor the test.

## **SECTION 9. INSPECTION EQUIPMENT AND SPECIFICATIONS**

### **FOR HEAVY DUTY VEHICLE AND LIGHT DUTY VEHICLE**

#### **1. HEADLIGHT TESTER**

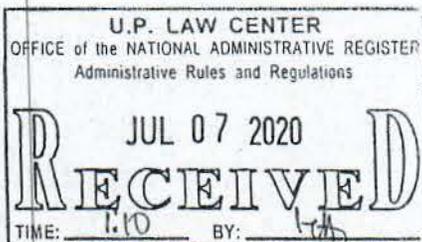
- i. Automated headlight tester
- ii. Automatic detection of the headlight
- iii. Measurement of the luminous intensity, vertical and horizontal deviation of the light beam
- iv. Steel base mounted with rollers
- v. Capable of measuring all types of headlight
- vi. Automatic pass/fail judgment
- vii. Operating conditions 0 - 40°C
- viii. Sensor type - Photocell Camera system
- ix. Process indicator (digital display/Color LCD)
- x. PC interface or its equivalent for interfacing/IT connectivity
- xi. Precise measurement of different light (Halogen, LED, Xenon) sources in real time

#### **2. ROLLER BRAKE TESTER**

- i. Automated brake tester
- ii. Maximum load per axle 15,000 kgs
- iii. Frame: Heavy duty structural steel
- iv. Sensor type: load cell
- v. Speed of Test 2 - 5 kph
- vi. Lifting method - Hydraulic System (if needed)
- vii. Automatic pass/fail judgment
- viii. PC interface or its equivalent for interfacing/IT connectivity
- ix. Process indicator (digital display/Color LCD)
- x. Capable of measuring brakes of 4WD vehicle
- xi. Raised rear roller to facilitate the exit of the vehicle and for more efficient measurement
- xii. Electromagnetic brake for easy drive out of the Roller set or equivalent
- xiii. Roller coating should simulate road condition
- xiv. Capable to test hand brake/parking brake
- xv. Capable to check brake balance from front-to-rear wheel

#### **3. SIDE SLIP TESTER**

- i. Automated sideslip tester
- ii. Automatic pass/fail judgment



- iii. Type: Single/Dual plate configuration
- iv. Maximum load per axle 15,000 kgs
- v. Mounting plate: Heavy duty structural steel
- vi. Sensor type e.g., Linear Transducer
- vii. Beginning of measurement after optical passage detection
- viii. PC interface or its equivalent for interfacing/IT connectivity
- ix. Fast measurement within 2 seconds precise values, fast indication of toe out or in.

4. SPEEDOMETER TESTER

- i. Automated speedometer tester
- ii. Type: Roller speedometer tester
- iii. Sensor type: Digital speed sensor
- iv. Frame: Heavy duty structural steel
- v. Automatic pass/fail judgment
- vi. 750mm-2800mm minimum-maximum track
- vii. Maximum load per axle 15,000 kgs
- viii. Lifting method: Hydraulic System or Pneumatic System

5. EMISSION TESTER

- i. Type: Gas analyzer on trolley for mobility
- ii. 5 gas analyzer
- iii. Automatic Pass/Fail judgement
- iv. PC interface mandatory
- v. Class O device compatible OIML R99/0 or its equivalent
- vi. Capable to test Euro 4 Engine Exhaust Gas

6. DIESEL SMOKE TESTER

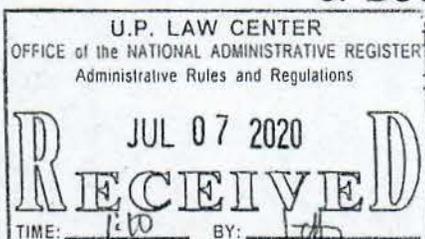
- i. Type: Opacimeter
- ii. Automatic Pass/Fail judgement
- iii. Can be combined with gas analyzer
- iv. PC interface or its equivalent for interfacing / IT connectivity

7. BAR CODE SCANNER and/or RFID READER

- i. Type: Optical
- ii. Nominal scan ratio: maximum speed 20 - 30 scan/sec.
- iii. Sensor type: high input optics
- iv. Built-in parameters are user configurable

8. BOGIE ROLLERS (for double differential HDVs)

- i. Type: Eight (8) Rollers configuration
- ii. Maximum load per axle - 15,000 kgs



- iii. Frame: Heavy duty structural steel
- iv. Monobloc Bogie roller
- v. Maximum speed: 120km/hr

9. AXLE PLAY DETECTOR (JOINT PLAY TESTER)

- i. Weight per axle – 15,000 kgs
- ii. Type: Hydraulic/Electronics plates (2) and hydraulic ram inducers
- iii. Hand held pendant with light and built-in controls
- iv. Hydraulic unit for the movement of plates
- v. Assist in the detection of defects located on the wheel axle of the suspension of vehicles

10. SOUND LEVEL METER (SONOMETER)

- i. Portable
- ii. Internal Oscillation Calibration
- iii. With positioning tripod stand
- iv. Digital display

11. SMOKE EXTRACTION SYSTEM (DIESEL-FED MVs)

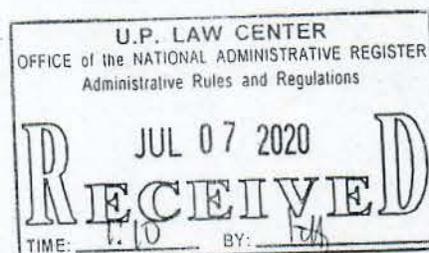
- i. Means of directing exhaust outside the inspection area

12. PROCESS INDICATOR

- i. Digital display/Color LCD On stand /wall Clamping, Additional screen.
- ii. Instruction on test procedures given to the inspector are displayed on a digital display screen monitor. Pass/fail judgement results are also displayed on the same screen monitor.

13. SUSPENSION TESTER (for LV use only)

- i. Type: Dual Plate configuration
- ii. Maximum load per axle: 3,500kgs
- iii. Frame: Heavy Duty Structural Steel
- iv. PC interface or its equivalent for interfacing / IT connectivity
- v. Network capable suspension tester
- vi. With axle weighing capability
- vii. With steel cover for passage of Heavy Duty Vehicles



## SECTION 10. INSPECTION PROCEDURE

### A. INSPECTION OF HEAVY DUTY AND LIGHT DUTY USED-IMPORTED MOTOR VEHICLES

This lane applies to all trucks, semi-trailer tractor units and other heavy-duty vehicles with gross vehicle weights of 4,501 kgs. and above and Light Duty Vehicles with axle weights below 4,500 kgs).

#### 1. STAGE 1. VEHICLE INFORMATION AND SPECIFICATION INPUT/ABOVE CARRIAGE&UNDER CARRIAGE INSPECTIONS EXHAUST EMISSION CHECK

##### i. INSPECTION PROCEDURE:

The MVIT is required to log in through a finger scanning device before every test.

At this stage, vehicle information and specification are validated into the computer panel by RFID reader.

##### ii. VEHICLE INFORMATION AND SPECIFICATION

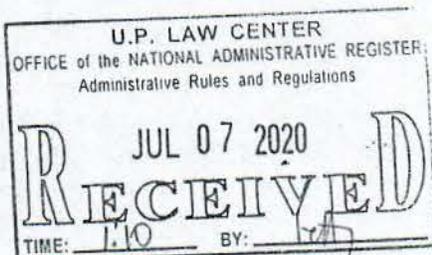
- a. Chassis Number
- b. Motor Number
- c. Make/Series
- d. Name of Owner/Operator
- e. Address of Owner/Operator
- f. Type of body/color
- g. Year Model
- h. Gross Vehicle Weight
- i. Net Capacity
- j. Fuel type
- k. Classification
- l. Denomination

##### iii. TEST EQUIPMENT AND APPARATUS

- a. Computer
- b. Wireless touch screen monitor
- c. Tablet for test operation control
- d. Barcode scanner/RFID reader
- e. Process indicator monitor

##### iv. INSPECTION STANDARDS

- a. The engine/motor number is the same as the engine/motor number appearing in the current Original Certificate of Registration.
- b. The make/type, model, plate number and sticker of the motor vehicle presented for inspection are the



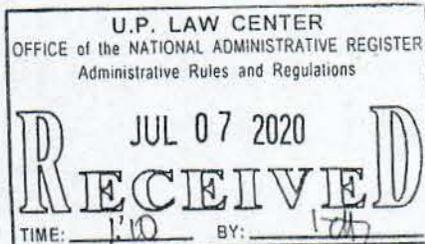
same as the information reflected in the current Original Official Receipt/Certificate of Registration.

v. ABOVE CARRIAGE ITEMS FOR INSPECTION

- a. Identity/construction
- b. Lighting system and reflectors
- c. Windshield/window glass
- d. Wiper/washer
- e. Chassis/motor number authenticity
- f. Horn
- g. Floor board
- h. Body appearance
- i. Seat belts
- j. Door/Hinges
- k. Rear view/side mirror
- l. Brake system/parking brake
- m. Clutch system
- n. Steering
- o. Driver's/passenger's seat
- p. Tires/wheels
- q. Wheels bolts/nuts
- r. Fuel tank/fuel tank cap
- s. Mobile Air-conditioning System (MAC'S)
- t. EWD
- u. Length, width and height (Rebuilt and locally assembled)

vi. UNDER CARRIAGE ITEMS FOR INSPECTION

- a. Chassis Frame/Chassis member
- b. Drive Shaft Bolt/Nut
- c. Engine Oil Leakage
- d. Transmission Oil Leakages
- e. Differential Oil Leakages
- f. Steering Linkages/Gear Box Mounting
- g. Steering Ball joints
- h. Radiator
- i. Shock Absorbers
- j. Exhaust pipe
- k. Propeller Shaft Couplings
- l. Front/Rear Shackle Eyes/Pins/Bushes
- m. Spring Clips
- n. Stabilizer/Bushes
- o. Suspension joints/Bushes
- p. Engine Bracket/Mounting
- q. King Pins and Bearing
- r. Steering Idler/Section Shaft
- s. Brake Hoses/Pipes/Cylinders



- t. Spring Bolts/Nuts
- u. Power Steering
- v. Fuel Hoses/Pipes
- w. Parking Brake Wire

vii. At this stage, all items for inspection are visually checked. Both above carriage and undercarriage inspections are monitored and recorded using HD cameras. The HD camera shall be connected to the MVIC IT System to store the visual inspection of motor vehicle. The inspector follows the instruction of the process indicator.

An axle play detector or joint play tester is used to assist the inspector while inside the undercarriage inspection pit.

Passed/failed items are determined and the data is transferred to the database.

viii. TEST EQUIPMENT AND APPARATUS

- a. Computer
- b. Wireless touch screen monitor
- c. Tablet for test operation control
- d. Bar code scanner/RFID reader
- e. Axle Play Detector (Joint Play Tester)
- f. Process indicator monitor
- g. IP Camera (2)

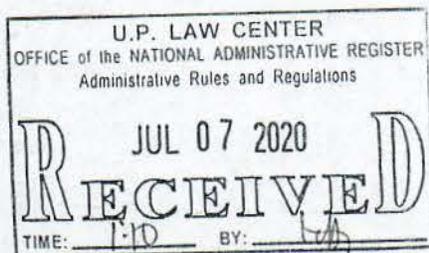
ix. EMISSION MEASUREMENT

i. GASOLINE-FED MOTOR VEHICLE (Spark Ignition Engine)

i.1 INSPECTION PROCEDURE:

The test procedure is for the determination of the concentration of Carbon Monoxide (CO) and Hydrocarbon (HC) emission from in-use motor vehicles equipped with spark ignition engine running at idle speed. At this stage, the motor vehicle gear- change control is in the neutral position with the hand brake engaged. The temperature of the engine is at least 70°C. The vehicle exhaust system is leak proof and will allow the insertion of sampling probe by at least 30 cm from the tailpipe outlet.

While the engine idles, the inspectors insert the gas emission analyzer probe into the exhaust pipe of the



vehicle. This is operated automatically and the measured data of the gas analyzer are displayed. Results are transferred to database after inspection is completed.

### i.2 TEST EQUIPMENT AND APPARATUS

i.2.1 Exhaust gas analyzer (HC, CO, CO<sub>2</sub>, NO<sub>x</sub>, O<sub>2</sub>)\*

i.2.2 Process Indicator monitor

*\*The test equipment should be capable of testing other types of fuels that will be introduced in the market (e.g. LPG/CNG/ethanol).*

### ii. DIESEL-FED MOTOR VEHICLES (Compression Ignition Engine)

#### ii.1 INSPECTION PROCEDURE:

This test is a smoke opacity measurement for in-use motor vehicle equipped with compression-ignition (diesel) engine using the free-acceleration method. The exhaust system shall not have any leaks. The motor vehicle-gear change control in the neutral position with the hand brake engaged. Accelerate the engine two to three (2-3) times prior to smoke sampling in order to remove deposits or soot in the tail pipe. While the engine idles, the inspector put the sampling probe into the exhaust pipe of the vehicle in accordance with the instruction on the process indicator.

Results are transferred to database after inspection is completed.

#### ii.2 TEST EQUIPMENT AND APPARATUS

ii.2.1 Computer

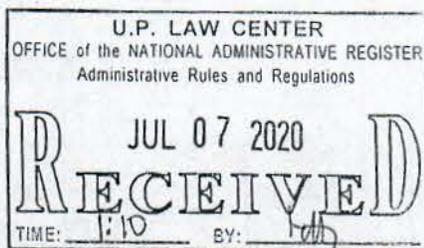
ii.2.2 Opacity meter

ii.2.3 Process indicator monitor

## 2. STAGE 2.

### 2.1 SIDESLIP TEST

a. At this stage, the inspection is fully automated.



- b. The sideslip tester measures the vehicles front wheel alignment of toe-in and toe-out.
- c. The process indicator prompts the inspector to drive the vehicle forward to the sideslip sensor plate.
- d. The measurement of lateral slip/movement of wheels start when the vehicle entered the first switch and the result of the test is determined when the vehicle passed through the last switch of the tester.
- e. Passed/failed judgments are determined and the data is transferred to the database.

i. TEST EQUIPMENT AND APPARATUS

- a. Computer
- b. Sideslip tester
- c. Process indicator monitor

2.2 SUSPENSION TEST (for LV use only)

This test 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. It also measures the efficiency of the shock absorbers using the EUSAMA principle or its recognized equivalent.

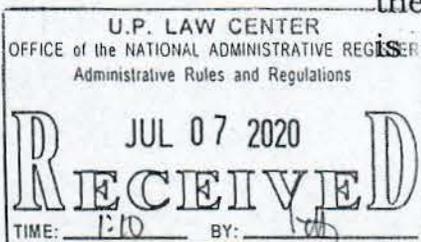
i. INSPECTION PROCEDURE:

- a. At this stage, both wheels of the axle under test are on the equipment's shaker plates. The test is performed on each wheel independently. The equipment will automatically measure the axle weight and the shaker plates will oscillate each wheel. The inspector will receive instruction via process indicator.

ii. TEST EQUIPMENT AND APPARATUS

- a. Suspension Tester
- b. Process indicator monitor

2.3 ROLLER BRAKE TEST - At this stage, the inspection is fully automated. This test measures the braking forces of the left and right wheels for both front and rear axle of the vehicle. The process indicator prompts the driver to release or depress the brake pedal of the vehicle. The vehicle's wheel drag and the braking force of each wheel are measured. Parking brake is conducted with respect to the axle incorporating the



parking brake mechanism. The result of inspection is determined and the data is transferred to the database.

i. TEST EQUIPMENT AND APPARATUS

- a. Computer
- b. Roller brake tester (with axle weighing device)
- c. Bogie roller (for testing Tandem-Axle Trucks)
- a. Process indicator monitor

2.4 SPEEDOMETER TEST - This test measures the actual speed of the vehicle and checks the accuracy of vehicle's speedometer reading.

i. INSPECTION PROCEDURE:

- a. The inspector performs instructions from the process indicator. Accelerates the vehicle to the speed of 40 km/hr and decelerate to rest.

The result of inspection is determined and the data is transferred to the database.

ii. TEST EQUIPMENT AND APPARATUS

- a. Computer
- b. Speedometer Tester
- c. Bogie roller (for Testing Tandem-Axle Trucks)
- d. Process indicator monitor

3. STAGE 3.

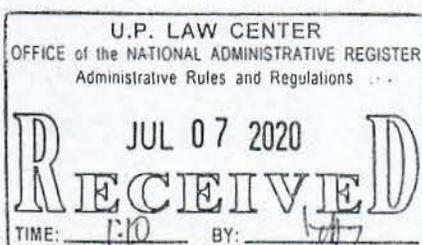
3.1 HEADLIGHT TEST - The headlight tester measures the luminous intensity and the photometric axis or optical axis deviation of the vehicle's headlight.

i. INSPECTION PROCEDURE:

- i.1 At this stage, the inspection is fully automated. The inspected vehicle will stop at a predetermined distance in relation to the headlight tester. After completion of inspection, the headlight tester will automatically return to its position.

The result of inspection is determined and data is transferred to the database.

i.2 TEST EQUIPMENT AND APPARATUS



- i.2.1 Computer
- i.2.2 Headlight Tester
- i.2.3 Process indicator monitor

### 3.2 SOUND LEVEL MEASUREMENT

#### i. INSPECTION PROCEDURE:

The inspector performs instructions from the process indicator. Accelerate the engine and measure the sound level.

#### i.1 TEST EQUIPMENT AND APPARATUS

- i.1.1 Sonometer
- i.1.2 Process indicator monitor

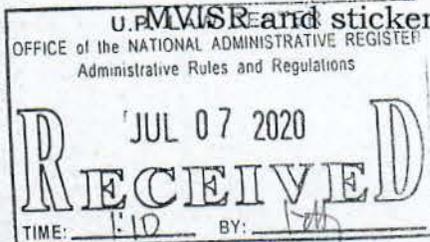
The suggested lay out of the Alternate MVIS Equipment for Heavy Duty Lane is attached as Annex "A".

### **SECTION 11. MOTOR VEHICLE INSPECTION SYSTEM REPORT (MVISR)**

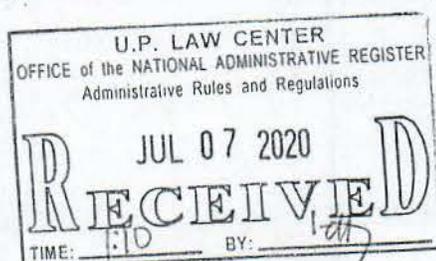
- A. The Motor Vehicle Inspection System Report (MVISR) provides the following information:
1. Vehicle information and specification;
  2. Name and address of owner/operator;
  3. Alternate MVIS location;
  4. Pass/fail status of all items in all stages of inspection; and
  5. MVISR security number

### **SECTION 12. GENERAL REQUIREMENTS**

- A. The Upgraded Alternate MVIS shall be FULLY AUTOMATED and capable of being interconnected or interfaced with the existing LTO IT System;
- B. The results of all visual inspections and tests shall be recorded/uploaded automatically (no human intervention) by direct input to the lane computer via touch screen monitor and/or keyboard. The pass/fail judgment is indicated in every stage of inspection and displayed in an overhead TV monitor;
- C. Upon completion of all stages of inspection, the results are transferred to the Main Database Server (MDS). The Motor Vehicle Inspection System Report (MVISR) will provide the overall pass/fail status of a vehicle. An indestructible sticker will be issued and physically attached by an authorized representative of the Alternate MVIS. The MVISR and sticker will be designed by the LTO;



- D. The Alternate MVIS IT systems are equipped with a compatible communication interface for transfer of test results in all stages of inspection to the main system control computer, for on-line and real-time authentication and validation of test results with the LTO IT System;
- E. There shall be no manual encoding of test results. Editing of said result shall be prohibited;
- F. Payment may be accepted either on-site or online by the Alternate MVIS System. Payment status and details must be uploaded into the MVIS IT system;
- H. The LTO IT System shall serve as repository of the Alternate MVIS inspection test results;
- I. The Alternate MVIS shall be able to function on an offline mode "stand-alone". It shall be able to collect and record test results for a minimum of sixty (60) days which may be saved in an external storage device when necessary. The recorded test results shall be transmitted to the LTO-IT System once on-line;
- J. Fingerprint recognition and user authentication must be provided to authorized MVITs to activate the inspection equipment and MVIS application software;
- K. The Alternate MVIS IT system must also be able to generate periodic, special and ad hoc reports including but not limited to audit reports, transaction and inspection records, etc.
- L. There shall be sufficient parking area for vehicles;
- M. There shall be an administrative office with clients' waiting lounge with the provision for real-time broadcasting of the inspection process;
- N. The inspection shall be done in a well-ventilated building.
- O. There shall be a data control room at the end of the inspection lane for the releasing of Certificates of Inspection and for the database.
- P. The Alternate MVIS equipment must be supplied by an ISO9001:2015 Certified manufacturer, and must have CE (Conformite Europeene) Certification.
- Q. It is understood that "down time" or "offline" refers to the internet connection downtime; other than that, the Alternate MVIS shall not be allowed to proceed with its business operation.



R. Any changes or update of Alternate MVIS IT System shall be submitted to LTO for approval and subject for evaluation of LTO.

### SECTION 13. MAIN DATABASE SERVER (MDS)

A. On completion of all stages of inspection, the results are transferred to the Main Database Server (MDS). The MVISR will provide the overall pass/fail status of a vehicle. All computer systems are equipped with a communication interface for transfer of test results in all stages of inspection to the MDS, for on-line and real-time authentication and validation of test results with LTO IT System. An indestructible inspection sticker shall be issued to all motor vehicles that completely passed the inspection process.

### SECTION 14. OTHERS

#### A. 1. IP CAMERA

The Alternate MVIS shall provide an IP camera for each stage of inspection for monitoring and recording of the inspection process. The LTO shall be able to monitor the actual activities of inspection online/real-time.

#### 2. HD Camera

An HD Camera (1080p) shall be dedicated to record the whole process (preferably from an isometric point of view) to be shown real-time to the Customer Lounge. The recording shall be available for 1 year from the date of inspection.

#### B. INTERPHONE COMMUNICATION SYSTEM

The Alternate MVIS shall provide an interphone or a wireless communication system so that the inspector can communicate with each other at their respective stages of inspection.

#### C. PUBLIC ADDRESS SYSTEM

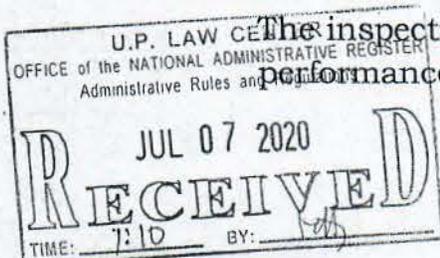
The Alternate MVIS shall have a public address system so that inspector can communicate to the driver of a vehicle.

#### D. RE-INSPECTION OF FAILED ITEMS

The system must be capable to identify and activate only those failed items for re-inspection while automatically bypassing the passed items. The same must only allow re-testing/re-inspection after two (2) hours.

#### E. LANE CAPACITY

The inspection lane is capable of operating in accordance with the performance standards and criteria set forth in these Guidelines.



#### F. TRAINING

All MVITs shall undergo training on the MVIS procedures and processes. This will be conducted by the LTO and certificates will be issued upon training completion.

#### G. CALIBRATION

All specifications, brochures, and calibration process of all inspection equipment shall be provided by the Alternate MVIS and submitted to the LTO. All equipment shall undergo calibration every 6 months to ensure accuracy. The calibration company shall be accredited by any government agency such as Department of Trade and Industry (DTI).

#### H. MAINTENANCE OF INSPECTION FACILITIES AND EQUIPMENT

The Alternate MVIS shall undertake the maintenance and calibration of all inspection facilities. Repair upkeep and replacement of parts, if necessary, shall also be the responsibilities of the Alternate MVIS. It shall submit a maintenance plan and periodic scheduled calibration to all test equipment to ensure accurate and consistent operation from the entire warranty period.

#### I. SYSTEM RECOVERY

The Alternate MVIS shall provide an operational system recovery plan; indicate how service will be resumed, in case of power and operational failure, and implement the same within one (1) day from such failure.

#### J. MOTOR VEHICLE INSPECTION SYSTEM REPORT (MVISR) AND INSPECTION STICKER

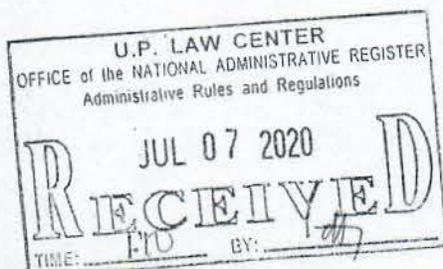
The MVISR and inspection sticker shall be issued to the vehicle owner/driver after the motor vehicle successfully completes the inspection process.

#### K. BAR CODE SYSTEM OR SIMILAR ELECTRONIC IDENTIFYING SYSTEMS

The system must employ automatic data capture, such as bar-code scanning to positively and quickly identify vehicles and their records.

#### L. REAL TIME SYSTEM

The Alternate MVIS shall be connected directly to the LTO IT SYSTEM. This system shall be used to automatically look up, retrieve vehicle information at the beginning of the inspection, and immediately download results at the conclusion of the inspection.



M. AUTOMATIC PASS/FAIL RESULTS

Passed or failed items shall be automatic and shall be transferred to database after inspection process except those items under the "visual inspection category".

N. AUTOMATIC ZEROING

To ensure data recording accuracy there shall be an automatic resetting of data to zero before each test.

O. SECURE

The equipment must also prevent falsification of, or unauthorized access to, test reports and data storage media. This shall be accomplished by using an attached printer utilizing secure certificates for compliance, at the end of the inspection line.

P. HARDWARE/SOFTWARE REQUIREMENTS

The Alternate MVIS system and service must be equipped with all essential hardware and software needed to support the inspection process. The Alternate MVIC shall also provide documentation of programs, including user manuals, program descriptions, and the name and address of any outside software manufacturers.

1. The capability of system hardware to meet all requirements.
2. The capability of system and application software to support the application requested.

Q. INTERNET CONNECTION

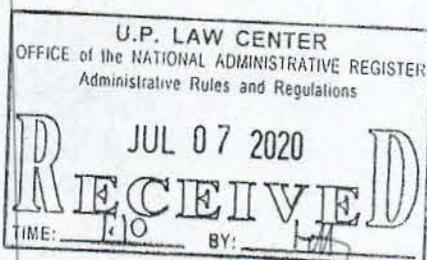
The Alternate MVIS should have an internet speed of at least 5 MBPS using a leased line.

R. SECURITY

1. SECURITY

The system must have multiple levels of security (such as biometrics fingerprint and AFIS) and access codes to regulate system access and to ensure the protection of information from unauthorized access (accidental or intentional), modification, destruction, or disclosure. The multiple levels of security should be relative to the different types of users. It shall include:

- i. Software security applications which can easily be updated
- ii. Ability to document reports on various system and user activities
- iii. Number of layers/divisions of security
- iv. Length/description of passwords
- v. Ability to restrict access for specified tasks



## 2. DATA SECURITY

The Alternate MVIS database shall not be accessed/open on-site without prior notifications and approval by LTO. Must ensure that all data collected or received by the Alternate MVIS becomes and remains the exclusive property of the LTO. The Alternate MVIS shall not supply any report or statistical information to any person or entity other than the LTO without advance specific written permission.

## 3. INTERFACE SECURITY

The Alternate MVIS' system must support all LTO IT System communications interface requirements as related to access security.

### SECTION 15. SYSTEM REQUIREMENTS

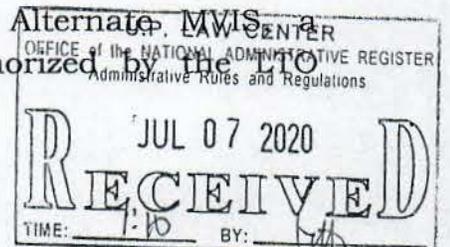
- A. A system generated Certificate of Inspection shall be the output of the inspection process with "Passed" or "Failed" criteria.
- B. Data Management System. All inspection result shall be uploaded online and real time to the LTO IT system. This result shall be used for the monitoring of the Alternate MVIS by LTO.
- C. All inspection equipment shall be interfaced to the Alternate MVIS system. The storage system must have a minimum capacity of 10 year volume of data.
- D. The Alternate MVIS System must be interfaced to the LTO IT System. The Alternate MVIS System shall upload test results, vehicle and payment data to the Central database online and real time. The Central MVIS database shall serve as repository of all inspection results from the Alternate MVIS.
- E. A Database System Solution (E.g. Cloud Storage) for check and balance purposes will be provided to the DOTr by the Alternate MVIS for "one-to-one" record comparison to LTO-IT System data. This allows the DOTr to monitor and view all inspection results, pictures and/or videos of the vehicles tested as visual proof of inspection for transparency. This data storage facility shall have the capacity to store and maintain the records, pictures and videos of a vehicle for duration of at least one (1) year from the date of inspection.

### SECTION 16. INSPECTION FEES

For the conduct of inspection/testing by the Alternate MVIS, a testing/inspection fee shall be charged as authorized by the LTO Assistant Secretary.

### SECTION 17. ANNUAL PERFORMANCE AUDIT

Using a non-discretionary pass or fail criteria, the LTO through the Inspection Team shall ascertain, validate and/or verify the Alternate



MVIS compliance with the documentary, legal and technical requirements

### SECTION 18. ADJUDICATION PROCESS

An Alternate MVIS alleged to have committed a violation/s shall be issued a Show Cause Order by the LTO.

### SECTION 19. PENALTY PROVISION

Any violation of the terms and conditions of the "Authorization Certificate" and these Guidelines, as well as any issuance by the LTO, shall be ground for the imposition of the following penalties:

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, also applicable for the following offenses or violations:

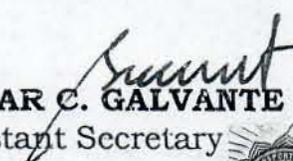
- i. Non-compliance with the standards or methods of inspection as provided by law and regulation;
- ii. Failure to comply with the laws, rules and regulations as imposed in this Circular;
- iii. Misrepresentation/fraudulent supporting documents for accreditation; and
- iv. Other violations to issuances promulgated by the LTO.

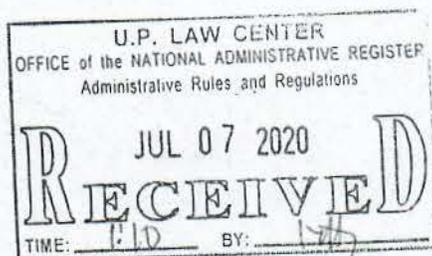
### SECTION 20. REPEALING CLAUSE

All memoranda, circulars, orders and other issuances in conflict or inconsistent herewith are hereby superseded, amended and/or repealed accordingly.

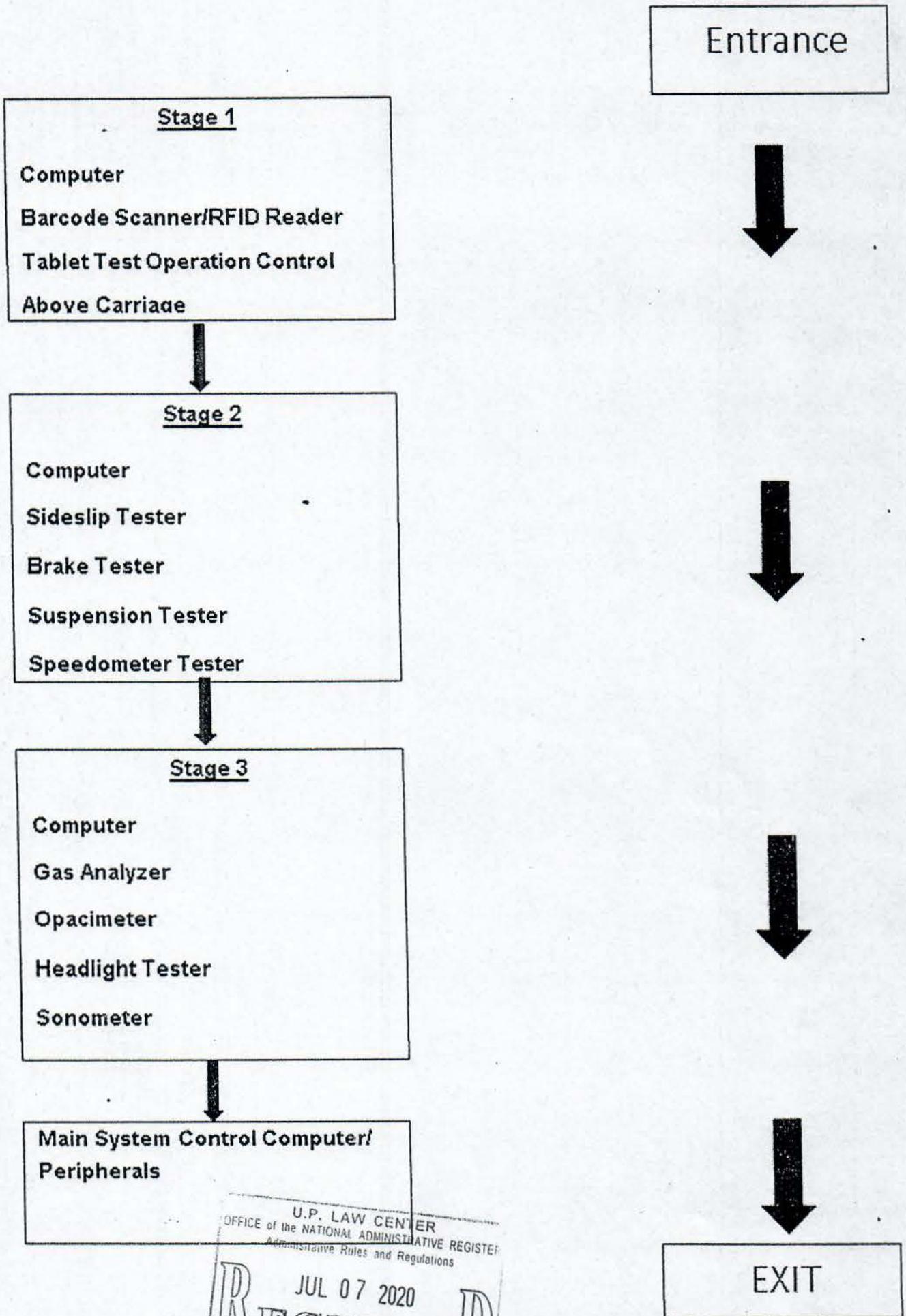
### SECTION 21. EFFECTIVITY

This Memorandum Circular shall take effect fifteen (15) days following the completion of its publication in the Official Gazette and/or in a newspaper of general circulation and/or the filing of three (3) copies with the UP Law Center pursuant to Memorandum Circular 11 dated 09 October 1992 of the Office of the President.

  
**EDGAR C. GALVANTE**  
Assistant Secretary



Lay Out of a Three (3) - Stage PMVIC Equipment for Heavy Duty Vehicle or Light Duty Vehicle Lane



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Republic of the Philippines  
Department of Transportation  
**LAND TRANSPORTATION OFFICE**  
East Avenue, Quezon City



**MOTOR VEHICLE INSPECTION SYSTEM REPORT**

MVISR No. \_\_\_\_\_

Name of PMVIC Operator \_\_\_\_\_

Address of PMVIC Operator \_\_\_\_\_

**MVISR**

M.V. File No.	Date Inspected	VIN No.
Plate No.	Vehicle Type Category	Purpose of Inspection
Owner	Owner's Address	
Source of Power <input type="checkbox"/> Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Auto-LPG <input type="checkbox"/> CNG <input type="checkbox"/> Electric <input type="checkbox"/> Others		

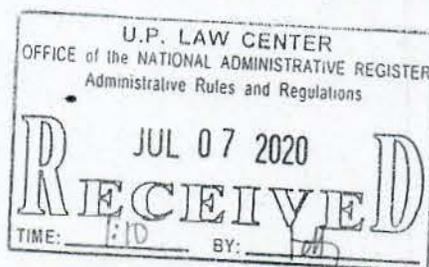
ABOVE CARRIAGE	Result	UNDER CARRIAGE	Result	SIDE SLIP TEST	Result
1. Body Appearance		1. Radiator			
2. Chassis		2. Engine Bracket/Mounting			
3. Engine		3. Engine Oil Leakage		BRAKE TEST	
4. Handle Bars		4. Transmission Oil Leakage			Result
5. Wiper/Washer		5. Steering Ball Joints		Sum	Diff.
6. Windshield/Window Glass		6. Steering Leverages/Gear Box Mounting		FB	
7. Headlights		7. Steering Idler/Sector Shaft		RB1	
8. Signal Lights (front)		8. Front Shackle Eyes/Pins/Bushes		PB1	
9. Signal Lights (rear)		9. Rear Shackle Eyes/Pins/Bushes		RB2	
10. Parking Lights (front)		10. Stabilizer/Bushes		PB2	
11. Parking Lights (rear)		11. King Pins and Bearings		RB3	
12. Brake Lights		12. Front Suspension Joints/Bushes		PB3	
13. Back-up Lights		13. Rear Suspension Joints/Bushes			
14. Clearance Lights		14. Rear Linkages			
15. Number Plate/Lights		15. Brake Hoses/Pipes/Cylinders			
16. Hazard Lights		16. Fuel Hoses/Pipes			
17. Reflectors		17. Spring U Bolts/Nuts			
18. Interior Lights		18. Spring Clips			
19. Top Light (Taxi)		19. Shock Absorbers		SPEEDOMETER TEST	
20. Seat Belts		20. Drive Shaft Bolts/Nut			Result
21. Horn		21. Differential Oil Leakage			
22. Door/Hinges		22. Propeller Shaft Coupling		SUSPENSION TEST	
23. Floor Board		23. Exhaust Pipes and Silencer			Result
24. Side Mirror/Rear View		24. Chassis Frame			
25. Clutch System		25. Chassis Cross Member		HEADLIGHT TEST	
26. Brake System		26. Body Floor Board			Result
27. Driver's/Passenger's Seat		27. Power Steering		Lum.	L/R
28. Steering		28. Parking Brake Wire		LH	U/D
29. Tires/Wheels		29. Mobile Air Conditioner (MAC)		RH	
30. Wheel Bolts/Nuts		30. Others			
31. Fuel Tank/Cap				SOUND LEVEL TEST	
32. Panel Gauges					Result
Others					
1. EWD				EMISSION TEST	
2. Color				Opacity	Result
3. Diesel Fuel System Seal				HC	
4. Speed Limiter				CO	
5. Odometer Reading:					

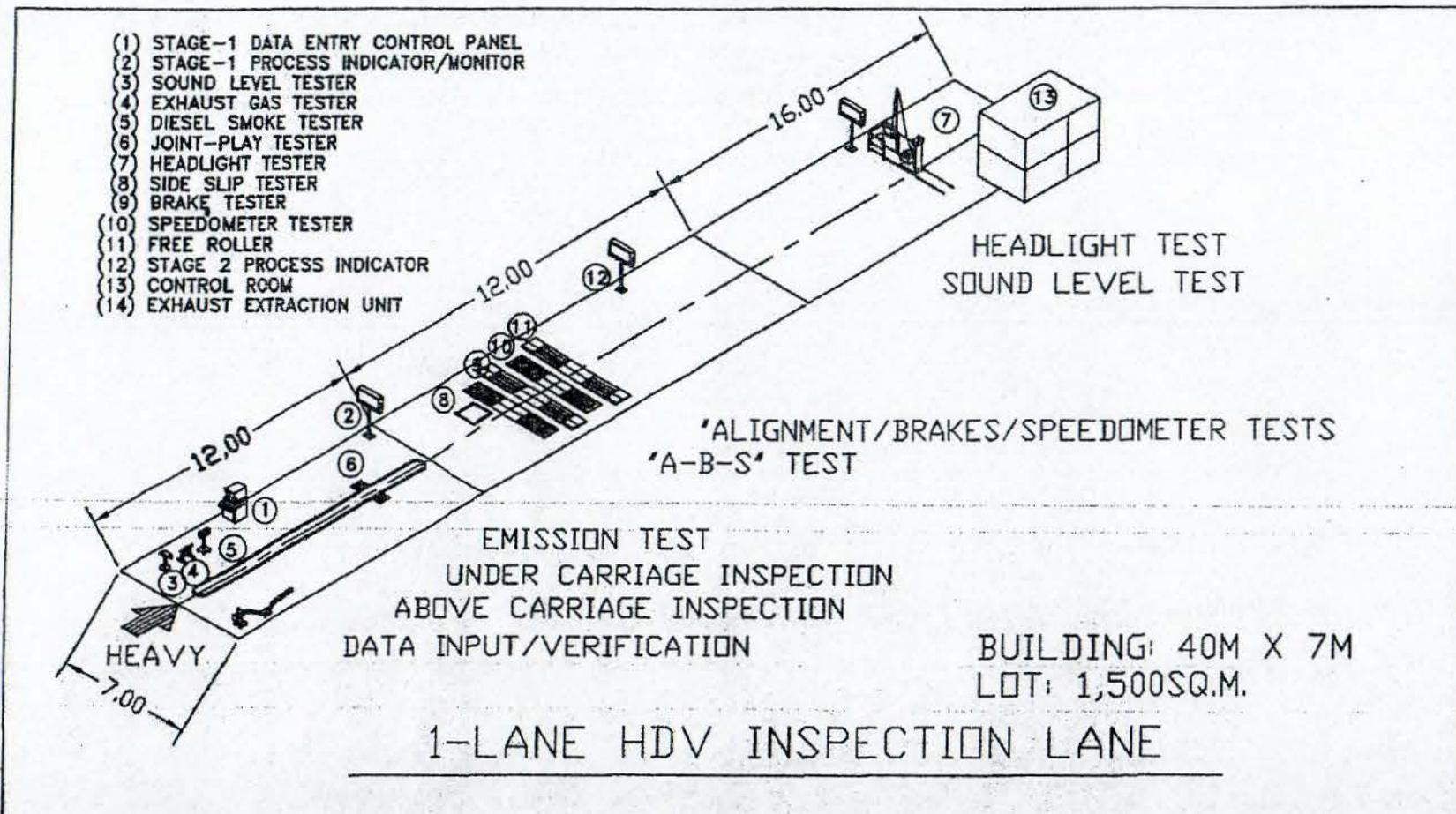
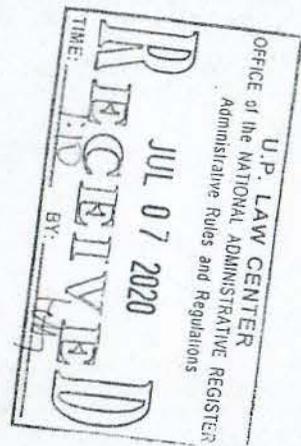
This is to certify that the motor vehicle described above has  PASSED  
the MVIS Test.  FAILED

If FAILED, the vehicle should come back within 5 working days from the date of inspection for reinspection of failed item/s.

Test Conducted By: \_\_\_\_\_

Signature over Printed Name  
MV Inspector





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