NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY

GUIDELINES FOR DESIGNATION OF VEHICLE EXHAUST EMISSION TESTING CENTRES

OCTOBER, 2025

Foreword

The Government of Kenya is committed to ensuring a clean and healthy environment for its citizenry as enshrined in the Constitution of Kenya, 2010 and the Environmental Management and Coordination Act, 1999.

As Kenya develops guided by Vision 2030, it only remains sustainable if the wellbeing of the people and quality of the environment is enhanced. A healthy and productive population is important in supporting the achievement of Vision 2030. To this end, the Government has formulated and operationalized the Environmental Management and Coordination (Air Quality) Regulations, 2024 as amended in 2025 to control air pollution noting the rapid industrialization and economic growth in the country.

The Air Quality Regulations among other interventions provide for control of emissions from mobile sources (vehicles, aircrafts, ships and trains). The Regulations requires commercial vehicles to undergo annual emission testing while private vehicles to undergo biennial emission testing in accordance with KS EAS 1047.

In order to operationalize the emission testing regime, NEMA through a multiagency taskforce has developed the Guidelines for Designation of Vehicle Exhaust Emission Testing Centres. The Guidelines provide basic requirements for the centres, testing equipment and recognized testing procedures in accordance with KS EAS 1047 and internationally recognized best practices. It is envisaged that development of the Guidelines will facilitate emission testing and monitoring in the country and go along away in improving the quality of our environment.

I recognize the efforts of NEMA and the lead agencies as stewards in safeguarding the quality of the environment for a healthy population.

The guidelies may be updated from time to time as the vehicle emissions testing and monitoring programs evolve with increased knowledge, technological advancement and the experience of the users.

Mr. Emilio N. Mugo
Chairman-NEMA Board of Management

Acknowledgement

This Guidelines for Designation of Motor Vehicle Emission Testing Centres were developed as part of the strategies to regulate emissions from mobile sources of air pollution.

The National Environment Management Authority wishes to extend gratitude to the following members of the National Taskforce on Operationalization of the Mobile Sources requirements without whose hard work and support the formulation of these Guidelines would not have been realized namely; John Waweru (DOSHS), Engineer Michael Muchiri (State Department of Transport), Samuel Kiai (KAA), Michael Mbaru (KMA), Maina Githinji (KPA), Jonathan Kilelo (KRC), Winstone Gicheru (KCAA), Mary Ngotho (KEBS), Teresa Mburu (IRA), Ezra Terer (EPRA), Kennedy Ochuka and Zephania Ouma (NEMA) respectively.

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I wish to extend my sincere appreciation to the NEMA Board of Management and NEMA Management who offered guidance and financial support throughout the entire process.

I urge the designated centres to make use of the Guidelines provided to strengthen vehicle emission testing and monitoring program within the country.

Dr. Mamo B. Mamo, EBS
Director General

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Abbreviations and Acronyms

CO_2	Carbon dioxide
CO	Carbon monoxide
DOSHS	Directorate of Occupational Safety and Health Services
EAS	East African Standard
EMCA	Environmental Management and Coordination Act Cap 387
EPRA	Energy and Petroleum Regulatory Authority
HC	Hydrocarbons
IBPs	International Best Practices
IRA	Insurance Regulatory Authority
ISO	International Standards Organization
KAA	Kenya Airports Authority
KCAA	Kenya Civil Aviation Authority
KEBS	Kenya Bureau of Standards
KMA	Kenya Maritime Authority
KNBS	Kenya National Bureau of Statistics
KPA	Kenya Ports Authority
KRA	Kenya Revenue Authority
KRC	Kenya Railways Corporation
KS	Kenya Standard
LPG	Liquified Petroleum Gas
NEMA	National Environment Management Authority
NHIF	National Hospital Insurance Fund
NSSF	National Social Security Fund
NTSA	National Transport and Safety Authority
NO_x	Nitrogen Oxides
OBD II	On - Board Diagnostic II
OSHA	Occupational Safety & Health Act
PM	Particulate Matter
SO_x,	Sulphur Oxides
UNEP	United Nations Environmental Programme
WHO	World Health Organization

Operational Definition of Terms

Authority	means National Environment Management Authority established under section 7 of EMCA, Cap 387.
Calibration	means adjusting and validating the performance of instruments such as gas analyzers, particulate matter analyzers and flow meters to ensure they are measuring pollutants concentrations and other parameters accurately
Equipment	means tool or devise used for testing emissions from mobile sources
Facility	means designated emissions testing centres for motor vehicles, trucks, motor cycles, three-wheelers *(tuk tuks*), ships, boats, trains, aircrafts among others. This may be fixed/stationary or mobile.
Internationally Recognized Best Practices	means a document, method, procedure, standard, rules or guidelines that have been developed through the consensus of experts from different countries, is approved and published by a globally recognized body, applied worldwide and is approved by NEMA in consultation with KEBS
Parameter	means a measurable quantity or a characteristic related to emissions produced by an emissions source

1.0 Introduction

Air pollution has become a global challenge as the world is rapidly industrializing with expanding economies as well as a growing population. The problem is worse in developing countries and has posed more health related challenges due to technical and technological gaps. Almost 99% of the global population breathe air that is beyond World Health Organization (WHO) guideline limits and contains high level of pollutants with low and medium income countries suffering from highest exposures (WHO, 2023).

Several studies have shown that air pollution is increasing in Kenya and is contributing to health related complications and premature deaths. According to WHO, approximately 19,000 people die each year in Kenya due to air pollution and the United Nations Environment Program (UNEP) cites 70 per cent pollution levels in Nairobi . The Economic Survey report, 2022 indicated increasing cases of diseases of the respiratory system largely associated with air pollution. According to the statistics, cases handled in 2020 were 16, 562, 227 while in 2021, reported cases were 20, 613,455 indicating an increase by 21.9% (Kenya National Bureau of Statistics, 2022).

Kenya has made commitment to meet the Sustainable Development Goals more specifically on good health and well-being; affordable and clean energy; and climate action. In response as part of her commitment in addressing air pollution in Kenya, the government gazetted the Environmental Management and Coordination (Air Quality) Regulations, 2024 which outline requirements for stationary and mobile sources of emissions. Further, the Regulations provide standards for priority air pollutants that such controlled facilities must comply with. In addressing pollution from mobile sources, the Regulations make reference to Kenya Standards 1515 that provide vehicular exhaust emission limits. These standards have since been harmonized with other East African member states as KS EAS 1047 that provide the limits from vehicular emissions.

The Authority recognizes the key role of private sector in this process and has considered the designation of qualified firms to undertake emission testing.

As part of the strategies to regulate emission from vehicular sources, NEMA through a Multiagency Taskforce has developed the Guidelines for Designation of Emission Testing Centres for Vehicles that will guide emission testing in Kenya. This Guidelines is applicable to all vehicle categories dependent on gasoline (petroleum and liquefied petroleum gas) and diesel in accordance with KS EAS 1047.

The formulation of this Guidelines has been informed by the provisions and requirements of the following legislations and Kenya Standards namely; the Environmental Management and Coordination Act, 1999; Environmental Management

and Coordination (Air Quality) Regulations, 2024 and the KS EAS 1047-Air quality — Vehicular exhaust emission limits.

The Authority in consultation with the relevant lead agencies shall exercise its regulatory mandate of compliance monitoring and enforcement to ensure quality control and quality assurance.

2.0 Emission Testing Centre

The designated emission testing centre will meet basic requirements as outlined below. These include;

2.1 Work Area of the Emission Testing Centre

The work area shall be as guided in the KS EAS 1047 and internationally recognized best practices.

2.1 Scope

The scope of the Vehicle Emission Testing Centres shall be defined as follows;

i. Stationary /Fixed
ii. Mobile

2.3 Parameters for Vehicle Emission Testing

In-use diesel vehicles shall be tested for smoke density whereas in-use petrol & LPG powered vehicles, motor and tricycles shall be tested for Carbon Monoxide and Hydrocarbons.

2.4 Equipment for Vehicle Emission Testing

The range of measurement should conform to the national limits stipulated under Section 4.2 of the KS EAS 1047. The emission testing equipment should incorporate web - enabled features. The equipment should be type approved by a nationally recognized body in the country of manufacture.

2.5 Calibration of Equipment

Calibration will be done in accordance with manufacturer's operating manual. The equipment shall be calibrated using a reference standard procedure in accordance with ISO 17025.

3.0 Quality Management System

This shall be done in accordance with requirements of ISO 17025 and internationally recognized best practices.

4.0 Exhaust Emission Limits

All imported, used and in use vehicle types and categories must comply with the exhaust emission limits specified in Tables 3 and 4 of Section 4.2 of KS EAS 1047, which serve as the reference for exhaust emission measurements.

5.0 Test Procedure for All Vehicle Categories

KS EAS 1047 outlines the test procedures for imported, used, and in-use gasoline and LPG vehicles under Annex D, while Annex E specifies the test procedures for imported, used, and in-use diesel vehicles.

The following test procedures shall be applicable;

i. Tail Pipe Measurement – Tail pipe test procedure is applicable for all vehicle categories and performed using a stationary gas analyser.

ii. On-Board Diagnostics System (OBD II) system check – Computer controlled system installed in modern cars that provide continuous monitoring of emissions.

Where there are discrepancies with OBD II tests, tailpipe test results shall be used as a confirmatory test procedure.

The emission testing centres should demonstrate professional competency with the above mentioned test procedures with reference to Section 4.2 of the KS EAS 1047.

6.0 Liabilities

The designated Vehicle Emission Testing Centre will ensure that they have third party insurance cover for the damage occasioned during emission testing.

7.0 Record of Decision

The Record of Decisions shall take the following forms;

i. Issuance of a compliance certificate for the compliant vehicles

ii. Issuance of an improvement notice for the non-compliant vehicles in which the compliance period is clearly prescribed. It is during this compliance period that the vehicle owner shall undertake appropriate installation of functional emission control technologies and undergo one additional free re-testing procedure to confirm compliance.

iii. As the country plans to transition from Euro IV and above and, taking note of the existing Euro II and Euro III vehicles currently in use in the country, the following administrative interventions may be considered;

a) Prescription of an additional carbon tax as prescribed in schedule 13 of the Environmental Management and Coordination (Air Quality) Regulations, 2024 as emended in 2025 for in-use non-compliant vehicles, which fee shall be payable directly to NEMA.

iv. Upon failure to meet the emission limits as prescribed within the compliance deadline, the vehicle shall be declared as environmentally unfit.

v. Notification for deregistration and recommendation for scrappage in line with the applicable Laws.

8.0 Data Sharing and Storage

The emission testing facilities should have a system, which will transmit real time emission data to NEMA. Data shall be managed and processed in line with the Data Protection Act, 2019. The facilities shall maintain and submit results of vehicle tested and submit the same to the Authority on a monthly basis or as may be prescribed when deemed necessary. The data shall include the test results for parameters indicated in sub section 2.3 of this Guidelines, the compliance status with the emission limits and the recommended Record of Decision.

9.0 Personnel

Requirements for personnel will be guided by requirements of KS EAS 1047 and internationally recognized best practices with a view to reorienting the centre's personnel to emission testing expertise.

9.1 Emissions Assessor

The Centre will be operated by at least two (2) competent emissions assessors that meet the basic requirements as outlined herein;

a) Qualification of Emissions Assessor

The Emissions Assessors will be required to meet the following minimum requirements;

i. have a diploma or higher qualification in Mechanical engineering or its equivalent with experience working with automobiles; and
ii. training in environmental health and safety is an added advantage
iii. training in customer service skills and public relations skills is an added advantage
iv. proficiency on basic computer programmes and functions with emphasis on Emission data analysis, interpretation and data management
v. basic knowledge on;
    a. emissions control devices functions, configuration, identification and inspection
    b. test equipment operation, calibration and maintenance
    c. quality control procedures and their purpose
    d. personal safety and health issues related to the inspection process
    e. the relevant national legislation and standards (EMCA Cap 387, OSHA 2007), KS EAS 1047 and OBD II protocols relevant for motor vehicle emission testing.
vi. possess a valid certificate of good conduct;
vii. have certificate of medical fitness from DOSHS
viii. possess a valid driving license of at least class E;

10.0 Compliance and Enforcement

The centres shall:

I. obtain an operational license from the Authority after every one year
II. develop and implement Standard Operating Procedures;
III. adhere to the Code of Practice as prescribed by the Authority;
IV. be subjected to periodic proficiency tests as guided by the Authority;
V. be subjected to surveillance, compliance evaluation inspections and control audits by the Authority; and
VI. Comply with improvement orders any other lawful orders issued by the Authority.