



Inspection and Maintenance Program Performance Standard Modeling

March 14, 2024

Planning Branch Air Quality Division
Department of Energy and Environment



Table of Contents

1.	Background	2
1.1.	NAAQS Background	2
1.1.1.	Carbon Monoxide (CO)	2
1.1.2.	Ozone (O3)	2
2.	I/M Program	4
2.1.	Description of the I/M Program	4
2.2.	Types of Tests	5
2.3.	Inspection Frequency	6
2.4.	Waivers and Exemptions	6
2.5.	Vehicles Covered	6
3.	EPA I/M Performance Standard Modeling	8
3.1.	Background	8
3.2.	Performance Standard Modeling	8
3.3.	Applied Performance Standard	12
3.3.1.	Analysis Year	12
3.3.2.	Geographic Coverage	12
3.3.3.	Emissions Model Selection	12
3.3.4.	Baseline Modeling Assumptions	12
3.3.5.	I/M-Specific Modeling Assumptions to Characterize Existing Program	13
3.3.6.	Run Assumptions	13
3.4.	Performance Standard Modeling Results	13
4.	Regulatory Review	14
5.	Conclusion	15
6.	Attachments	16

List of Tables

Table 1:	Source Types Modeled in PSM	8
Table 2:	I/M test types performed in the District	9
Table 3:	Model years covered by each test standard	10
Table 4:	Compliance factors for the District's I/M program	11

1. Background

1.1. NAAQS Background

The U.S. National Ambient Air Quality Standards (NAAQS) are restrictions on the atmospheric concentration of six pollutants that cause smog, acid rain, and other health hazards. These standards are established by the United States Environmental Protection Agency (EPA) under the authority of the Clean Air Act (42 U.S.C. 7401 et seq.). The six criteria air pollutants (CAP) are:

- Ozone (O₃),
- Lead (Pb),
- Sulfur Oxides (SO_x),
- Nitrogen Oxides (NO_x),
- Carbon Monoxide (CO), and
- Particulate Matter (PM_{2.5} and PM₁₀).

The CAPs were recognized by the United States Environmental Protection Agency as the first set of pollutants that would require nationwide standards. The EPA has organized the standards into two types: primary and secondary. Primary standards are designed to protect the health of vulnerable populations such as asthmatics, children, and the elderly. The secondary standards are concerned with protecting the environment, including but not limited to addressing visibility and damage to crops, vegetation, buildings, and animals.

1.1.1. Carbon Monoxide (CO)

The EPA set the first NAAQS for carbon monoxide in 1971. The primary standard was set at nine ppm, averaged over an 8-hour period, and 35 ppm over a 1-hour period. The majority of CO emitted into the ambient air is from mobile sources. In 1984, the EPA removed the secondary standard for CO due to the lack of significant evidence of its adverse impact on the environment. On January 28, 2011, the EPA decided that the current NAAQS for CO were sufficient and proposed to keep the existing standards as they stood. However, the focal point of this document is ozone (O₃).

1.1.2. Ozone (O₃)

Ozone is a highly reactive molecule containing three oxygen atoms. Ozone is found in Earth's upper atmosphere (the stratosphere) and lower atmosphere (the troposphere). Stratospheric ozone is produced naturally and provides a shield from the sun's harmful ultraviolet rays. Tropospheric, or ground-level ozone, is not emitted directly into the air but is created by chemical reactions between oxides of nitrogen (NO_x) and volatile organic compounds (VOC). These emissions can be produced naturally and anthropogenically. This happens when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight. Ozone can also be transported long distances by wind, so even rural areas can experience high ozone levels. Ground-level ozone is a harmful air pollutant because of its effects on people and the environment. Ozone at the ground level is the main ingredient in smog.

The United States Environmental Protection Agency (EPA) set the 2015 ozone standard to 0.070 parts per million (ppm), and areas that were not able to achieve compliance with the standard have been classified

as ozone nonattainment. The classification ranges from moderate to serious nonattainment. The District has been classified by the EPA as moderate ozone nonattainment. The District of Columbia is bordered by The Commonwealth of Virginia (Northern Virginia) and the State of Maryland are classified as moderate nonattainment for ozone. The District has implemented an enhanced Inspection and Maintenance (I/M) program, which is applicable throughout the District.

2. I/M Program

2.1. Description of the I/M Program

The District of Columbia's Inspection and Maintenance (I/M) Program covers the entire District. The District is geographically located within an Ozone Transport Region (OTR) and is in a Metropolitan Statistical Area (MSA) with a 1990 population of more than 100,000. Because it is in the OTR and in an MSA of that size, it must comply with the provisions of United States Code 7511a(c)(2)(A) of Title 42 under Clean Air Act section 184.

Vehicle emission I/M programs require regularly scheduled testing of the amount of evaporative gasses that are emitted into the atmosphere. The District conformed to the updated enhanced (I/M) program in 1997 set forth by the applicable State Implementation Plan (SIP) for the District of Columbia under section 110 of the Clean Air Act (CAA) (42 U.S.C. 7401) and 40 CFR part 51 to meet National Ambient Air Quality Standards (NAAQS). The implementation of this program continues to be an integral part of the District's plan to attain and maintain compliance with the health-based NAAQS for ozone. Reducing the emissions of volatile organic compounds (VOCs) and nitrogen oxides (NOx), both of which are precursors to ozone formation, as well as carbon monoxide (CO), will help the District in its efforts to improve its air quality and protect the health and welfare of its citizens. However, for the purpose of this document, the focus is only to conduct a performance standard model (PSM) for ozone.

As a part of the rules for I/M program requirements, the EPA established "model" programs for areas that were required to implement I/M programs. The model programs have a specific set of program elements that are designated as "I/M performance standards." The purpose of these standards is to provide an indicator by which the EPA can evaluate the adequacy and efficacy of each state's I/M program. Essentially, states are required to demonstrate the ability of their state's I/M program to achieve applicable area-wide emission levels for the pollutants of interest that are equal to, or lower than, those that would be realized by the implementation of the model program. The EPA also allows for a margin of error in determining compliance with the performance standard.

The District meets the criteria for a Basic I/M program after being reclassified from Marginal to Moderate for the 2015 ozone NAAQS. Therefore, a PSM analysis should be included in an I/M SIP submission when an I/M program is mandated pursuant to the CAA and I/M regulations. In October of 2022, the EPA clarified rulemaking that is consistent with the I/M regulations, explaining that states with existing I/M programs would need to conduct a PSM analysis to ensure the I/M program is meeting or exceeding the Basic I/M performance standard level for 2015 ozone NAAQS.¹ A Basic I/M program is required for urbanized Moderate nonattainment areas under the 2015 ozone NAAQS. The required PSM analysis element is found in CFR 51.372(a)(2).

¹ Environmental Protection Agency, Review of the Ozone National Ambient Air Quality Standards, December 2020. <https://www.federalregister.gov/documents/2020/12/31/2020-28871/review-of-the-ozone-national-ambient-air-quality-standards>

2.2. Types of Tests

Primarily, there are three types of tests conducted for I/M testing: visual inspection, tailpipe test (Bar 90 & IM240), and on-board diagnostic (OBDII) check. Enhanced I/M programs use all three of these tests. When an inspector conducts a visual inspection, they are checking for the presence of tampering with required emission control parts (e.g., straight pipe replacing the catalytic converter).

Tailpipe, or idle, tests consist of measuring exhaust emissions during two phases:

1. An idle test at 350-1200 RPM (Revolution Per Minute)
2. A high RPM test at 2200-2500 RPM (Revolution Per Minute)

If exhaust samples exceed the limits during the first phase, then the second phase should be performed (raised idle). After the raised idle test is complete, the vehicle's engine speed is returned to idle, and the system evaluates the vehicle's emissions against predetermined criteria for the vehicle. Idle tests measure carbon monoxide (CO), hydrocarbons (HC), and carbon dioxide (CO₂). Tailpipe idle tests for vehicles 1968 through 1983 and older will use BAR-90 test equipment as specified in 40 CFR Part 51, Appendix D. (18 DCMR § 755.3, Appendix 2b).

IM240 transient test procedure for subject vehicles model year 1984 through 1995. IM240 stands for "Inspection/Maintenance" emission tailpipe testing that lasts for 240 seconds. For IM240 tests, a dynamometer is used to simulate accelerating, decelerating, and coasting at various speeds. Emissions are collected from the tailpipe and are analyzed to gather the total amount of pollutants that are emitted. The test measures carbon monoxide (CO), unburned hydrocarbons (HC), and oxides of nitrogen (NOX). The I/M 240 test also includes a check of the vehicle's evaporative emissions control system to make sure that the fuel system is not leaking fuel vapors into the atmosphere and a flow test of the vehicle's canister purge control valve. The District's enhanced I/M tests are performed in accordance with 40 CFR § 51.357, which are incorporated by reference into District regulations, 18 DCMR §754. This regulation provides for the IM240 test or an EPA-approved equivalent. Pass/Fail standards are the EPA IM240 standard set forth in 40 CFR 51.351. These are included in District regulation Title 18 DCMR 752.12-752.20.

Lastly, the OBD II monitors the computerized emission control system for vehicles model year 1996 and newer. During the OBDII inspection process, the emissions inspection analyzer is connected to the vehicle's DLC (Data Link Connector) and asks the vehicle's OBDII system to provide the status of all its OBDII monitors. If there are too many monitors that indicate "Not Ready," the analyzer will reject the vehicle from testing.

Additionally, gas cap tests check to see if fuel emissions are leaking from the vehicle's fuel system into the environment. The gas cap is attached to a testing device, which exerts pressure on the cap to ensure that pressure is maintained. All vehicles will be tested for gas cap integrity with automated test equipment, and all vehicles 1984 and newer will receive a pressure test.

District residents can perform vehicle emissions tests at the self-service vehicle emissions inspection kiosk located at the Takoma Recreation Center. Tests can be conducted 24 hours, seven days a week. The kiosk is only available for personal/private vehicles, model year 2005 or newer, and vehicles previously inspected by the DC DMV. Vehicle Inspection Reports (VIR) are printed along with a temporary paper inspection certificate. DC DMV will send the two-year inspection certificate to the address on file.

2.3. Inspection Frequency

All personal vehicles are tested biennially, i.e., vehicle inspections are valid for two years. However, new personal, non-commercial, and non-for-hire vehicles that have a manufacturer's Certificate of Origin (the title for a new vehicle) will automatically receive a 4-year new car inspection sticker upon registration through the dealership. Therefore, the new vehicle should not be physically taken through inspection. Personal vehicles consist of:

- Sedans,
- Crossover,
- Sport Utility Vehicles (SUV),
- Hatchbacks,
- Station Wagons,
- Coupes,
- Pickup Trucks, and
- Minivans.

Alternatively, commercial vehicles are subject to emission inspections annually. Examples of commercial vehicles are:

- Semi-Trucks,
- Box Trucks,
- Dump Trucks,
- Garbage Trucks, and
- Tow Trucks.

Taxis, limousines, buses, school buses, and other public use for-hire vehicles are tested either annually or every six months depending on emission results.

2.4. Waivers and Exemptions

The District acknowledges certain waivers and exemptions. New personal vehicles that have manufacturer's Certificate of Origin do not require an inspection. However, DC regulations require all vehicles to display a valid inspection sticker. Vehicles older than model year 1968 are not required to get an inspection, as are any other vehicles registered as historic. Motorcycles and motorized bicycles are no longer required to get an inspection in the District. Zero-emission personal vehicles, such as 100% electric, diesel vehicles, and trailers, do not require an inspection. Lastly, vehicles that have failed emission inspections and have spent \$1044 or more on emission-related repairs are eligible to receive a waiver from emission inspection for two years.

2.5. Vehicles Covered

The District's enhanced I/M program consists solely of centralized (test-only) facilities. Enhanced I/M tests are required for all vehicles weighing less than 26,000 lbs. Gross Vehicle Weight Rating (GVWR). This

provides more coverage than EPA regulations that call for tests on vehicles weighing less than 8,500 lbs. GVWR. Biennial inspections are performed in conjunction with existing safety inspections. All vehicles model year 1968 and newer entering the inspection station undergo complete enhanced I/M testing.

3. EPA I/M Performance Standard Modeling

3.1. Background

As a part of the final rule for I/M requirements set by the EPA, “model” programs have been established for areas that were required to implement I/M programs. The model programs are termed by the EPA as the “I/M performance standards” and are defined by a specific set of program elements. The purpose of the performance standard is to provide a gauge by which the EPA can evaluate the adequacy and effectiveness of each state’s I/M program. Particularly, states are required to substantiate that their I/M programs achieve applicable area-wide emission levels for the pollutants of interest that are equal to, or lower than, those that would be realized by the implementation of the model program. The EPA makes allowances for a margin of error to ascertain compliance with the performance standard.

3.2. Performance Standard Modeling

Pollutant Process ID (polProcessID)

MOVES estimates the reduction of emissions from I/M programs for hydrocarbons, CO, and NOx (pollutantIDs 1, 2, and 3, respectively), among other pollutants, though it is these three pollutants that are reduced through the District’s I/M program. Exhaust emissions can be affected by running (processID 1) and start (processID 2) emissions. Additionally, evaporative hydrocarbon emissions can occur due to vapor venting (processID 12) and fuel leaks (processID 13). Pollutant is referenced by the emissions that are released and the process pertains to the method in which the emissions are released.

State Identifier (stateID)

This section is used to indicate the jurisdiction in which the I/M program is located in. The District of Columbia (the District) is represented by 11.

County Identifier (countyID)

Since the District is comprised of only one county, this column will consist of one code, 11001.

Year Identifier (yearID)

The analysis year discussed in this document for which the I/M program is being evaluated is 2023.

Vehicle Type Identifiers (sourceTypeID) & Fuel Type Identifiers (fuelTypeID)

This section represents the source type or vehicle that is included in the I/M program. Although there are 13 different source types, the District’s I/M program evaluates seven of the source types (See Table 1). Also, the District’s I/M program only evaluates vehicles that are fueled by gasoline (fuelTypeID 1).

Table 1: Source Types Modeled in PSM

Source Type (ID)	Source Types
21	Passenger Car
31	Passenger Truck
32	Light Commercial Truck
43	School Bus
51	Refuse Truck

52	Single Unit Short-haul Truck
53	Single Unit Long-haul Truck

Inspection Frequency (inspectFreq)

The Districts I/M Programs inspects vehicles biannually, annually, and biennially. Passenger vehicles (sourceTypeID 21 and 31) are inspected biennially, whereas, all commercial vehicles are inspected annually, including commercial cars such as taxis. School buses (sourcetypeID 43) are inspected biannually. Taxis and school buses are both problematic to model and are modeled as biennially and annual respectively, which results in an undercount of emissions benefits.

Emission Test Type and Emission Standards (testStandardsID)

The District's I/M program uses a combination of three types of testing, which include visual inspections, tailpipe testing, and OBD testing. (See Table 2)

Table 2: I/M test types performed in the District

Test Standards ID	Test Standards Description	Description	Source Type	Model Year Coverage
12	Two-mode, 2500 RPM/Idle Test	Test performed while vehicle idles and at 2500 rpm	<ul style="list-style-type: none"> • 21, 31, 32 • 43, 51, 52, 53 	<ul style="list-style-type: none"> • 1968 – 1983 • 1968 – 2023
31	IM240 Phase-in Cutpoints	Test performed on a dynamometer, under load, through a pre-defined transient driving cycle of up to 240 seconds at phase-in cutpoints.	<ul style="list-style-type: none"> • 21, 31, 32 	<ul style="list-style-type: none"> • 1984 – 1995
41	Evaporative Gas Cap Check	Test conducted by pressurizing the gas cap for the purpose of identifying leaks in the gas cap.	<ul style="list-style-type: none"> • 21, 31, 32 • 43, 51, 52 • 53 	<ul style="list-style-type: none"> • 1968 – 1995 • 1968 – 2023 • 1968 – 2026
43	Evaporative System OBD Check	Test of the evaporative emission related systems and components performed by visual check of the MIL and scan of the OBD computer system for readiness, MIL status, and stored trouble codes, on 1996 and	<ul style="list-style-type: none"> • 21, 31 • 32 	<ul style="list-style-type: none"> • 2003 – 2023 • 2003 – 2026

Test Standards ID	Test Standards Description	Description	Source Type	Model Year Coverage
		newer, OBD-equipped vehicles.		
45	Evaporative Gas Cap and OBD check	The evaporative OBD test performed on conjunction with a separate check of the gas cap for the purpose of identifying leaks in the gas cap not otherwise identified by the evaporative OBD check. This test combination is only conducted on 1996 and newer, OBD-equipped vehicles.	<ul style="list-style-type: none"> 21, 31, 32 	<ul style="list-style-type: none"> 1996 – 2002
51	Exhaust OBD Check	Tests exhaust-related systems and components performed by visual check of MIL and scan of on-board computer for readiness, MIL status and stored trouble codes, on 1996 and newer OBD-equipped vehicles only.	<ul style="list-style-type: none"> 21, 31 32 	<ul style="list-style-type: none"> 1996 – 2023 1996 – 2026

Model Year Coverage (begModelYearID and endModelYearID)

The District allows a four-year grace period for new passenger vehicles (sourceTypeIDs 21 and 31). (Please see Table 3 for all model year coverage.)

Table 3: Model years covered by each test standard

Test Standard ID	Model Year Coverage
12	1968 – 1983; 1968 – 2023 (Depending on Source Type)
31	1984 - 1995
41	1968 - 1995
43	2003 - 2023
45	1996 - 2002
51	1996 - 2023

UseIMYN (useIMyn)

The District uses the (“Y”) in this column to include all information in the rows of the table.

Compliance Factor (complianceFactor)

The complianceFactor is calculated using the following formula from guidance, where RCCA (Regulatory Class Coverage Adjustment) is the:

$$\text{Compliance Factor} = \text{Compliance Rate} \times (1 - \text{Waiver Rate} \times \text{Failure Rate}) \times \text{RCCA}$$

Where:

$$\begin{aligned} \text{Compliance Rate} &= \text{Compliant Vehicles} / \text{Total Vehicles} & \text{Waiver Rate} &= \text{Waived Vehicles} / \text{Initial Fails} \\ \text{Failure Rate} &= \text{Initial Fails} / \text{Total Vehicles} \end{aligned}$$

Though simplifications lead to:

$$\begin{aligned} \text{Waived Rate} &= \text{Waiver Rate} \times \text{Failure Rate} \\ \text{Waived Vehicles} &= \text{Initial Fails} / (\text{Initial Fails} * \text{Total Vehicles}) \end{aligned}$$

As per the District’s SIP a waived rate of three percent (3%) and a compliance rate of 96% is assumed. District registration data was used to determine the RCCA for light-duty passenger (31) and commercial trucks (32), national defaults were used for refuse trucks (51) and short-haul trucks (52 and 53), and since all District school buses (43) are medium-duty school buses were set to an RCCA of 1. The calculations are shown in Table 4.

Note that the District does test light-duty trucks that have GVWRs above 8,500 lbs. since only one set of MOVES I/M inputs can be applied, and these vehicles get OBD tests rather than OBD tests. Also, refuse trucks and short-haul trucks up to 26,000 lbs. GVWR, which has been undercounted since the third bin RCCA includes both Class 6 and 7 vehicles, and including that bin would result in an overcount. Also, note that the District tests transit buses and long-haul trucks registered in the District that are under 26,000 lbs. GVWR.

Table 4: Compliance factors for the District’s I/M program

sourceType	Model Year	Waived Rate	RCCA	Formula	Comp. Factor
21	All	Y (3%)	1.0000	96% * (1 - 3%) * 100	93.12
31	1968 – 1983	Y (3%)	0.9399 + 0.0601	96% * (1 - 3%) * 100	93.12
	1984+	Y (3%)	0.9399	96% * (1 - 3%) * 93.99	87.53

32	1968 – 1983	N	0.8536 + 0.1464	96% * (1 – 0%) * 100	96
	1984+	N	0.8536	96% * (1 – 0%) * 85.36	81.95
43	All	N	1.0000	100% * (1 – 0%) * 100	100
51	All	N	0.0728+ 0.1530	96% * (1 – 0%) * 22.5	21.68
52	All	N	0.5676+ 0.3401	96% * (1 – 0%) * 90.07	87.14
53	All	N	0.5807+ 0.3117	96% * (1 – 0%) * 89.24	85.67

3.3. Applied Performance Standard

The District is part of the Washington, DC-MD-VA nonattainment area for the 2015 8-hour Ozone NAAQS and was reclassified to moderate nonattainment. Because of this the District is required to use the basic I/M program as the performance standard for this purpose. The District followed the basic I/M program design elements at 40 CFR 51.352(e) for the comparison. The I/M Performance Standard Modeling demonstration shows the District’s I/M program meets the Basic Performance Standard.

3.3.1. Analysis Year

The District is part of the Washington, DC-MD-VA nonattainment area for the 2015 8-hour Ozone NAAQS. On July 14, 2021, it was reclassified to moderate nonattainment by EPA. According to the PSM Guidance², a moderate area is required to analyze the year “6 years after the effective date of designation and classification (i.e., the attainment date),” which would be 2023 (40 CFR 51.352(e)(13)). Thus, we are modeling 2023.

3.3.2. Geographic Coverage

According to the PSM Guidance, “a PSM analysis should be performed for each county in which an I/M program is required to operate to capture the programmatic and operational differences within those counties.” Given that to meet that requirement the District must model its one and only county-equivalent, the geographic coverage will be the one county-equivalent that is itself the District.

3.3.3. Emissions Model Selection

According to the PSM Guidance, “Performance standard modeling must be demonstrated using the most current version of EPA’s mobile source emission model.” Since MOVES 3.1 is the most recent version that was available at the time it was employed for this modeling.³

3.3.4. Baseline Modeling Assumptions

The starting point for the for MOVES input databases were those approved for “Visualize 2045,” the latest plan approved for transportation conformity purposes. Vehicle populations and vehicle miles travelled

² EPA, Performance Standard Modeling for New and Existing Vehicle Inspection and Maintenance (I/M) Programs using the MOVES Mobile Source Emissions Model, October 2022

³ 40 C.F.R. § 51.15 (3)(l) 2008

(VMT) are both linear interpolations between the projections for 2021 and 2025. 4 Age distributions are equivalent to those from the 2021 projection. The AVFT was not provided for the transportation conformity analysis but was added for this exercise and is based on the District’s vehicle registration dataset for 2022. A MariaDB database has been provided in Attachment A that reflects these assumptions.

3.3.5. I/M-Specific Modeling Assumptions to Characterize Existing Program

Concerning the assumptions used for the I/M program, several improvements were made in response to the new capabilities of MOVES 3.1. Idle tests were included for 41s and 42s in the District’s program file with percentages based on Appendix A from the modeling guidance. However, idle tests for 31s and 32s for medium duty were not included to prevent the need for multiple model runs. Annual tests for taxis and semi-annual tests for school buses were not included for the same reason. Lastly, all idle tests were changed to “Two-mode, 2500 RPM/Idle Test” to reflect the actual system used by the District. A MariaDB database that reflects these assumptions has been provided in Attachment B.

3.3.6. Run Assumptions

Two runspec has also been provided as Attachment C.

3.4. Performance Standard Modeling Results

The results shown in Table 5 that both in terms of total emissions and emission rate (g/mile) that the District’s I/M program is more sufficient than a basic I/M program in terms of hydrocarbons and VOCs, as well as NOX. This means that the District’s I/M program is sufficient in regard to all ozone precursors. Table 5: Results of Basic and Program As Implemented MOVES3 runs

Pollutant	Emissions (tons)		Emission Rate (g/mile)	
	Basic	Program	Base	Program
HC	3.48	3.36	0.2953	0.2852
VOC	2.58	2.48	0.2194	0.2107
NOX	3.10	2.98	0.2635	0.2532

A MariaDB database has been provided in Attachment D that includes the full results.

⁴ Metropolitan Washington Council of Governments, Transportation Plans Visualize 2045. <https://www.mwcog.org/transportation/plans/visualize-2045/>

4. Regulatory Review

The District's Office of Documents has published revisions to its current register of D.C. Municipal Regulations. Rulemaking notices were published in the D.C. Register (DCR) and adopted rules were codified into the D.C. Municipal Regulations (DCMR). With the authority of The Vehicle Inspection Improvement Amendment Act of 2009, Title 18 Section 6 was amended, and several regulations were updated in accordance, specifically, 18 DCMR §§ 600 (made effective January 8, 2010); § 601.1-601.6 (made effective January 29, 2021); § 602-606 (made effective January 8, 2010); § 607 (made effective August 11, 2017); § 609 (made effective July 13, 2001). Furthermore, 18 DCMR §§ 701, 752, 754 and 756 were also amended and made effective on March 3, 2010. Note that for 18 § 603.1, text was mistakenly added in place of the original text. 18 DCMR § 603.1 refers to "Rejected Vehicles"; however, 18 DCMR §603.1 should be designated for "Approved Vehicles".

The following is a list of the changes:

- § 600.1 changed "contains" to "shall contain", removed "safety equipment, materials, and the condition of motor vehicles driven in the District of Columbia; requirements for annual", added "and" and removed "and condemned".
- § 600.4 removed "public street or space" and added "or, if applicable, as set forth in § 601.4, § 601.5 and § 601.6".
- Since portions of § 601 were referenced in § 600.4, § 601.1 – § 601.6 was added.
- § 602.6 added minor language changes "after" to "no later than".
- § 603.1 removed "mechanical", "that", "an approved inspection", "for a motor vehicle or trailer" "conforms" and adds "does not conform".
- § 604.1 changed the name of the Inspection Manual to "AAMVA Manual".
- § 604.2 was repealed, though dealt strictly with trailer inspections.
- § 604.6 though § 604.10 were repealed, though dealt with for-hire vehicles receiving a different color sticker.
- § 604.12 and § 604.13 were added language but included language originally in § 604.11.
- § 606.2 changed the name of the "District Inspection Manual" to "Lane Operator's Manual" and added "AAMVA Manual".
- § 607.1 Added language to include autocycles and changed the verbiage from "motorized bicycles" to "motor-driven cycles."
- § 607.3 changed the verbiage from "motorized bicycles" to "motor-driven cycles."
- § 609.1 added minor language changes.
- § 617.3 changed the training course to The Department of Public Works.
- § 618.3 changed Director roles to The Department of Public Works.
- § 618.5 was added, and § 618.6 added minor capitalization changes.
- § 701.2 added minor capitalization and
- § 701.7 was added and instituted an additional requirement to suspend historic licenses if maximum mileage limits were exceeded.
- § 752.3 established OBD testing standards.
- § 756.3 was added to clarify calibration procedures for emissions tests.

Note that § 601.7 though § 601.12, § 609.2, and § 609.3 are not being incorporated into the SIP since they deal with inspection fees.

A red-line strike-out version of these changes has been provided in Attachment E, and the District is proposing to submit these as an amendment to the District's SIP.

5. Conclusion

DOEE finds that its current I/M program meets the requirements of a Basic I/M program as required for a moderate ozone nonattainment area and that the updated regulations it is submitting as an amendment to its SIP do not constitute backsliding.

6. Attachments

Attachment A - v45_2020_amnd_ozn_dc_2023_in_base_m3.zip

Attachment B - v45_2020_amnd_ozn_dc_2023_in_program_m3.zip

Attachment C - Runspecs.zip

Attachment D - dc_im_psm_v45_2023_amnd_ozn_dc_2023_out.zip

Attachment E - Title 18 Chapter 6 and 7 Redline Strikeout.pdf