

MOVES6 Policy Guidance: Use of MOVES for State Implementation Plan Development, Transportation Conformity, General Conformity, and Other Purposes

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Air Quality Planning Division
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Section 1. Introduction

1.1 What is the purpose of this guidance?

This guidance describes how and when to use the latest version of the MOtor Vehicle Emission Simulator (MOVES) emissions model for Clean Air Act (CAA) State Implementation Plan (SIP) development, transportation conformity determinations, general conformity determinations, and other purposes. This guidance applies to the current version of MOVES6, as well as any future MOVES6 minor revisions.¹ This guidance supersedes the previous November 2024 version of the MOVES5 guidance (EPA-420-B-24-038).

MOVES6 is the U.S. Environmental Protection Agency's (EPA) latest official motor vehicle emissions model for State and local agencies to estimate nitrogen oxides (NO_x), particulate matter (PM_{2.5} and PM₁₀), volatile organic compounds (VOCs), carbon monoxide (CO), and other pollutants and precursors from cars, trucks, buses, and motorcycles for SIP purposes and transportation conformity determinations in States other than California.²

In addition to other updates, MOVES6 incorporates the currently applicable Federal vehicle standards, including the effects of the EPA's Rescission of the Greenhouse Gas Endangerment Finding and Motor Vehicle Greenhouse Gas Emission Standards Under the Clean Air Act final rule ("Endangerment Finding Rescission Rule"), finalized February 12, 2026.³ MOVES6 also accounts for reduced electric vehicle (EV) incentives and reduced funding for EV infrastructure. As a result of these changes, MOVES6 includes the latest information for the national default projections of EVs. *See* section 1.3 of this Guidance for more information about the new changes in MOVES6.

This guidance also covers the use of earlier versions of MOVES, including MOVES5 and MOVES4, for SIP and transportation conformity purposes. National default EV projections in these earlier versions of MOVES are no longer consistent with the latest information and data available. The use of earlier versions of MOVES for SIPs and transportation conformity is covered in section 2 and section 3 of this Guidance, respectively. Modelers using earlier versions of MOVES for new analyses may not rely on the national default EV projections in these models. *See* section 1.5 of this Guidance for more information.

The EPA will be publishing a *Federal Register* notice to announce the availability of MOVES6 for official purposes. All States other than California should use MOVES6 for both onroad and nonroad sectors for future SIPs to take full advantage of the

¹ Details on MOVES can be found at www.epa.gov/moves.

² In California, a different onroad emissions model, the Emissions FACtors (EMFAC) model, is used for regulatory purposes instead of MOVES. MOVES can also model emissions in the District of Columbia, Puerto Rico and the U.S. Virgin Islands.

³ *See* 91 FR 7686 (Feb. 18, 2026).

improvements incorporated in this version. However, State and local agencies that have already completed significant work on a SIP with a previous MOVES version may continue to use it for that SIP. *See* section 2 of this Guidance for further information on using MOVES in SIP development, including using MOVES6 for vehicle inspection and maintenance (I/M) performance standard modeling for I/M SIPs for the 2015 ozone National Ambient Air Quality Standard (NAAQS) (*see* section 2.6 of this Guidance).

The EPA intends to include in the *Federal Register* notice a two-year grace period for using MOVES6 for transportation conformity purposes.⁴ The EPA coordinated with the U.S. Department of Transportation (DOT) on the length of the conformity grace period. MOVES6 will be required for use in new conformity determinations begun after the two-year grace period ends. *See* section 3.5 of this Guidance for further information on using MOVES6 in transportation conformity determinations.

Note that the intended two-year conformity grace period for using MOVES6 is separate and distinct from the two-year conformity grace period for using the previous version of the model, MOVES5. The two-year grace period established by the EPA's December 2024 [MOVES5 Notice of Availability](#) in the *Federal Register* is unchanged by the release of MOVES6 and continues to be in effect until December 11, 2026;⁵ however, modelers should consider the additional guidance in section 1.5 of this Guidance on the use of appropriate EV projection assumptions. *See* section 3 of this Guidance for more details on using MOVES6 for transportation conformity and section 4 for information on using MOVES6 in general conformity determinations.

The EPA has also included information regarding the use of MOVES for estimating mobile source air toxic (MSAT) emissions in section 5 of this Guidance. Although there are no SIP or conformity requirements for these pollutants, MOVES6 is the EPA's best tool for estimating these emissions from onroad and nonroad mobile sources for regulatory and nonregulatory purposes. Section 5 of this Guidance also includes information about the use of MOVES in the EPA's National Emissions Inventory (NEI).⁶

The MOVES6 *Federal Register* Notice of Availability will be available at the EPA's transportation conformity website for [Policy and Technical Guidance](#).

1.2 How does the EPA distinguish model versions?

MOVES6 is a major revision to the MOVES series of models and is the sixth major MOVES release. As shown in Table 1, future minor revisions would be designated by increments of the number after a decimal point (*e.g.*, MOVES6.1). The EPA may also use an additional decimal point to designate minor patches (*e.g.*, MOVES6.0.1).

⁴ *See* 40 CFR 93.111(b).

⁵ *See* the EPA's Notice of Availability, Official release of the MOVES5 Motor Vehicle Emissions Model for SIPs and Transportation Conformity (89 FR 99862; Dec. 11, 2024).

⁶ More information on the NEI can be found at <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei>.

Table 1: MOVES Naming Convention

Type of Release	Naming Convention	Examples
Major release	“MOVES” followed by the next number in sequence	MOVES6
Minor revision	Addition of a decimal followed by the next number in sequence	MOVES6.1, MOVES6.2
Minor patch, e.g., new user features	Addition of a second decimal followed by the next number in sequence	MOVES6.0.1, MOVES6.0.2

References to “MOVES6” in this Guidance refer to MOVES6 and any future minor revisions to MOVES6. References to “MOVES5” in this guidance refer to all versions of MOVES5. In general, references to a specific major version of MOVES in this Guidance include minor versions and patches that update that version number.

1.3 What is MOVES6 and how does it compare to MOVES5?

MOVES is the EPA’s state-of-the-science model for estimating emissions from onroad mobile sources. MOVES6 also models most nonroad emissions sources.⁷ MOVES6 is a major revision to the MOVES series of models and is the latest emissions model for SIP and conformity purposes.

MOVES is a flexible model using a variety of input and output options, allowing more than one way to develop emissions estimates. Like its predecessors, MOVES6 includes the capability to estimate criteria pollutant and precursor emissions from vehicle exhaust and evaporative emissions as well as brake wear and tire wear emissions. Like previous versions, MOVES6 does not include the capability to estimate emissions of re-entrained road dust. To estimate emissions from re-entrained road dust, practitioners should continue to use the latest approved methodologies.⁸

The EPA is releasing MOVES6 to account for important legislative and regulatory changes. On February 12, 2026, the EPA finalized the Endangerment Finding Rescission Rule that repealed all greenhouse gas (GHG) emission standards for light-, medium-, and heavy-duty on-highway vehicles and engines.⁹ MOVES6 accounts for this change and also accounts for the Congressional disapproval of the waiver for California’s Advanced

⁷ The nonroad emission sources not included in MOVES are aircraft, commercial marine engines, and locomotives.

⁸ See the EPA’s Notice of Availability, Official Release of the January 2011 AP-42 Method for Estimating Re-Entrained Road Dust from Paved Roads (76 FR 6328; Feb. 4, 2011).

⁹ See 91 FR 7686 (Feb. 18, 2026).

Clean Trucks (ACT) regulations.¹⁰ MOVES6 also accounts for legislation that reduced incentives for EVs and EV charging infrastructure.¹¹

MOVES5 and MOVES4 both accounted for the GHG vehicle standards in effect at the time those models were released, projecting that GHG standards would be met through greater adoption of EVs over time.^{12,13} In MOVES6, the EPA updated energy consumption rates and adjusted assumptions about the fraction of EVs and other fuel types.¹⁴ MOVES6 still projects that some fraction of vehicles are EVs, but these fractions by year are generally smaller than in MOVES5 and MOVES4.¹⁵ In addition, MOVES6 includes updated activity data and fixes incorrect values in MOVES5.

There are no changes to the MOVES interface since MOVES5. The significant changes in MOVES6 are summarized below:

- EV fractions were reduced to account for the repeal of GHG standards and reductions in incentives for EVs and EV infrastructure. Medium- and heavy-duty EV fractions were also reduced to account for Congressional disapproval of the waiver for California’s ACT regulations that included heavy-duty zero emission vehicle requirements.
- Energy consumption rates for light-duty model years (MY) 2017–2024 were updated based on real-world data from the EPA’s 2025 Automotive Trends Report.¹⁶ Rates for MY 2025 and later continued these trends.
- Historical and projected vehicle miles traveled (VMT) and vehicle populations were updated using the latest data on school buses and transit buses, as well as updated values from the U.S. Federal Highway Administration (FHWA) Highway Statistics (2024) and the DOE Annual Energy Outlook (2025).
- Emission rates were corrected to fix minor errors in MOVES5. The fixes affected exhaust hydrocarbon (HC), NO_x, and PM from MY 2031 and later medium-duty (Class 2b and 3) trucks, CO from MY 2027 and later light-duty cars and trucks,

¹⁰ In 2025, Congress enacted joint resolutions of disapproval under the Congressional Review Act for certain preemption waivers that the EPA had previously issued pursuant to CAA section 209, including ACT (*see* H.J. Res. 87). President Trump signed the resolution into law (*see* Pub. L. 119-15, 139 Stat. 65 (June 12, 2025)). This resolution provides that the corresponding waiver “shall have no force or effect.” As a result, the EPA’s prior preemption waiver for ACT has no force or effect. Accordingly, ACT is preempted by the CAA, meaning that a State can no longer enforce or attempt to enforce the ACT regulations and that estimated emissions reductions attributed to the ACT regulations cannot be used for the CAA purposes of SIP development or conformity determinations.

¹¹ *See* Pub. L. 119-21, 139 Stat. 72 (July 4, 2025).

¹² *See* the EPA’s Notice of Availability, Official release of the MOVES4 Motor Vehicle Emissions Model for SIPs and Transportation Conformity (88 FR 62567; Sept. 12, 2023).

¹³ MOVES3 does not include EVs in the default information.

¹⁴ The projections are based on the U.S. Department of Energy (DOE), U.S. Energy Information Administration, [Annual Energy Outlook 2025: Case Descriptions](#) at 9 (explaining the alternate transportation case description).

¹⁵ Modelers using MOVES5 or MOVES4 for new SIP or conformity work should see section 1.5 of this Guidance for additional information.

¹⁶ *See* U.S. Environmental Protection Agency. (2026). [The 2025 EPA Automotive Trends Report: Fuel Economy and Technology since 1975](#). EPA-420-R-26-001.

and tire wear from all compressed natural gas (CNG) heavy-heavy-duty (Class 8) trucks.

- Gasoline properties in a few counties were updated to account for new data and changes to local fuel requirements since MOVES5.

As a result of these changes, estimates of emissions from MOVES6 may differ from earlier versions of MOVES. The net impact of these changes on estimated emissions will depend on many factors, including the specific area being modeled and the inputs used.

For additional information on the updates included in MOVES6, please refer to the “Overview of EPA’s MOtor Vehicle Emission Simulator (MOVES6),” found at the [EPA’s MOVES website](#). Specific information about MOVES6 inputs and algorithms can be found on the EPA’s websites for [MOVES Onroad Technical Reports](#) and [MOVES Nonroad Technical Reports](#).¹⁷

The EPA performed a comparison of onroad criteria pollutant and precursor emissions from MOVES6 to emissions from MOVES5 using default information in MOVES6 at the national level and for four sample urban counties with different local travel patterns and ambient conditions. In general, compared to MOVES5, MOVES6 shows slightly higher emissions estimates for most pollutants in the 2020s due to updated national VMT and fuel mix. In the 2030s, VOC and PM emissions estimates are higher due to more internal combustion vehicles and fewer EVs; NO_x emission estimates are similar to MOVES5 due to the correction in NO_x emission rates. In the 2040s and beyond, emission estimates are higher for most pollutants due to significantly more internal combustion vehicles and fewer EVs than in MOVES5.

1.4 What resources are available to assist in implementing MOVES6?

In addition to this Guidance, the EPA has developed technical guidance to assist in implementing MOVES6:

- MOVES6 Technical Guidance: Using MOVES to Prepare Emission Inventories in State Implementation Plans and Transportation Conformity (EPA-403-B-26-002, October 2026) describes appropriate input assumptions and sources of data for the use of MOVES6 in SIP development and regional emissions analyses for transportation conformity determinations in States other than California. It also includes guidance on developing nonroad inventories.

The EPA’s [State and Local Transportation Resources website](#) includes several other guidance documents related to the use of MOVES for SIP and transportation conformity purposes, including guidance for transportation conformity hot-spot analyses, performance standard modeling for I/M programs, port emissions inventories, and emissions benefits of control strategies. Also found on this website is the EPA and

¹⁷ For more information, see the EPA’s MOVES website at: <https://www.epa.gov/moves>.

DOT's joint [Guidance for the Use of Latest Planning Assumptions in Transportation Conformity Determinations](#) (EPA420-B-08-901, December 2008). This guidance covers the use of the latest planning assumptions in both SIPs and transportation conformity and is relevant for developing MOVES input data.

In addition, the EPA's [MOVES](#) website includes documentation about the MOVES model, including information about the latest version, instructions for downloading MOVES, training materials and notices of upcoming MOVES training, and instructions for subscribing to the Agency's MOVES email announcements. MOVES users are urged to check the EPA websites regularly and follow instructions linked from the [MOVES latest version website](#) to receive Agency email announcements related to MOVES and MOVES guidance.

1.5 What changes are necessary for modelers still using MOVES5 and MOVES4?

Using MOVES6 ensures that modeling includes the latest information on national default EV projections. However, there are cases in which modelers may use a previous version of MOVES (*i.e.*, MOVES5 or MOVES4) where the national default EV projections need to be updated due to the Endangerment Finding Rescission Rule, removal of EV funding and incentives, and other changes. *See* sections 2.1, 3.5, and 3.7 of this Guidance for more information on when updating EV projections is necessary for SIP development and transportation conformity analyses.

In cases in which modelers need to change the EV fractions in MOVES5 or MOVES4, this can be done within the Alternate Vehicle Fuel and Technology (AVFT) Table in MOVES. The AVFT Table allows modelers to modify the fraction of vehicles capable of using different fuels and technologies, including EVs. The AVFT Tool within the model helps modelers complete this table.

The MOVES5 and MOVES4 versions of the MOVES Technical Guidance describe the AVFT Tool selections that can be used for projecting future years in the AVFT Table.¹⁸ The AVFT Tool includes four methods to project fuel type distribution in future years:

- The “Proportional” and “National Average” methods in these models include the national default EV projections that do not reflect the Endangerment Finding Rescission Rule or other information included in MOVES6.
- The other two methods available in the tool, which are the “Constant Fraction” and “Known Fractions” methods, should be used to update these earlier models’ EV projections when these models can be used as described sections 2 and 3 of this Guidance.

¹⁸ *See* section 4.8.3 of both the MOVES5 and MOVES4 Technical Guidance that can be found at: <https://www.epa.gov/state-and-local-transportation/policy-and-technical-guidance-state-and-local-transportation#moves>.

Most MOVES5 and MOVES4 users will need to use the “Constant Fraction” approach, which assigns EV fractions from the last complete MY of data to all future years. In many cases, this will lead to lower future year EV fractions than using MOVES6. The “Known Fractions” option is appropriate when future fuel type distributions are known (e.g., because of an enforceable State or local program). A forecast of EV adoption rates based on a consumer preference survey or other research would not be sufficient for the use of this method.

Each MOVES AVFT Tool is specific to the model version in which it is included and may only be used with its corresponding version of the model. The MOVES6 AVFT Tool may only be used with MOVES6.

1.6 Does this guidance create new requirements?

No. This document is intended solely as guidance. The statutory provisions and the EPA regulations discussed in this Guidance contain legally binding requirements. This Guidance is not a regulation itself and does not change or substitute for statutory provisions and regulations. Thus, it does not impose legally binding requirements on the EPA, DOT, States, or the regulated community. The EPA retains the discretion to consider and adopt approaches on a case-by-case basis that may differ from this Guidance but still comply with the CAA and applicable regulations. Any decisions regarding a particular SIP or conformity determination will be made based on the CAA and applicable regulations. This Guidance may be revised periodically without an opportunity for public comment.

1.7 Who do I contact if I have questions?

Questions about the application of this guidance to specific SIPs or transportation conformity determinations should be addressed to applicable EPA Regional Office SIP or transportation conformity contacts. A list of EPA Regional mobile source contacts can be found on [EPA’s Regional Contacts for SIP Mobile Source Programs website](#). Regional contacts for transportation conformity can be found at the [EPA Regional Contacts for State and Local Transportation website](#).

In addition, the following EPA contacts are available for general questions regarding this guidance:

- For general questions about the MOVES model, email moves@epa.gov;
- For SIP questions, contact Kaitlyn Leffert (leffert.kaitlyn@epa.gov);
- For transportation conformity questions, contact Aaron Letterly (letterly.aaron@epa.gov);
- For general conformity questions, contact Virginia Raps (raps.virginia@epa.gov); and

- For questions about the National Emissions Inventory, contact Karl Seltzer (seltzer.karl@epa.gov) or Janice Godfrey (godfrey.janice@epa.gov).

Section 2. Using MOVES6 in SIPs

2.1 *How does the release of MOVES6 affect SIPs that are currently under development?*

The CAA and implementation rules for the NAAQS describe how SIP inventories and control measures should be based on the most current information and applicable models available when a SIP is developed.¹⁹ Therefore, States should use the latest version of MOVES and planning assumptions available at the time that a SIP is developed to ensure the SIP is based on the most accurate estimates of emissions possible. Now that MOVES6 is available, it should be used in ozone, CO, PM, and nitrogen dioxide (NO₂) SIP development for all States other than California as expeditiously as possible, as there is no grace period for the use of MOVES6 in SIPs. For example, MOVES6 should be used if a State is in the early stages of SIP development and significant work has not yet occurred or if work has not yet started for a new SIP requirement.

The EPA also recognizes the time and level of effort involved in SIP development. In cases in which State and local agencies have already completed significant work on a SIP with MOVES5 or MOVES4 as of the MOVES6 release, they may continue to rely on this earlier version. For instance, SIP development may continue if a State has progressed far enough along that switching from a previous model version would create a significant adverse impact on State resources (*e.g.*, if attainment modeling has already been completed with MOVES5 or MOVES4 prior to the MOVES6 release).²⁰

However, as noted in section 1.1 of this Guidance, MOVES5 and MOVES4 contain national default EV projections that do not reflect the Endangerment Finding Rescission Rule or other updates in MOVES6. In these cases, if possible, if significant work occurred on a SIP prior to the MOVES6 release, modelers should consider updating the EV projections within the AVFT Table or use MOVES6. *See* section 1.5 of this Guidance for additional information. If SIP modeling was completed prior to the release of MOVES6 and it is not possible to update the EV projections, modelers could instead continue to rely upon their already completed work. States should consult with their EPA Regional Office if they are developing a SIP using MOVES5 or MOVES4 using the default EV projections.

The interagency consultation process must be used to develop any SIP based on MOVES.²¹ States should consult with their EPA Regional Office if they have questions

¹⁹ *See* CAA section 172(c)(3). *See also* the discussion of emissions inventory requirements in the Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements rule ([81 FR 58029](#); Aug. 24, 2016) and in the Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements rule ([83 FR 63022](#); Dec. 6, 2018).

²⁰ The EPA does not anticipate MOVES3 would still be used for SIP development since this model was released in March 2021. States should consult with their EPA Regional Office if they intend to submit a SIP that uses MOVES3.

²¹ *See* 40 CFR 93.105(a)(1) and (b).

about how MOVES6 affects SIPs under development in specific nonattainment or maintenance areas. Early consultation can facilitate the EPA's consideration of whether to make an adequacy finding for transportation conformity purposes as well as the Agency's consideration of a SIP submission.

As discussed in section 3 of this Guidance, new regional emissions analyses that support transportation plan and transportation improvement program (TIP) conformity determinations and are started after the end of the conformity grace period must be based on the latest emissions model available.²² Therefore, incorporating MOVES6 into SIP modeling now could assist areas in mitigating possible transportation conformity difficulties in the future after the MOVES6 conformity grace period ends.

2.2 How does the release of MOVES6 affect SIPs that have already been submitted or approved?

The EPA does not require States to revise submitted SIPs or SIPs that have already been approved simply because a new motor vehicle emissions model is now available.²³ States can, however, choose to update these SIPs with MOVES6, for example, if it is determined that it is appropriate to update motor vehicle emissions budgets ("budgets") with the model for future transportation conformity determinations.²⁴

The EPA recognizes that States may have relied on the EV assumptions in MOVES5 and MOVES4 in SIP development based on the Agency's statements in previous versions of the MOVES Policy and Technical Guidance. The EPA expects limited cases in which State and local agencies have already completed significant work with MOVES5 or MOVES4 and submitted a SIP prior to or shortly after the Endangerment Finding Rescission Rule. When evaluating these SIP submittals, the EPA will consider the latest MOVES model, assumptions, and guidance information available to a State at the time it developed its SIP.

²² See 40 CFR 93.111.

²³ See *Sierra Club v. EPA*, 356 F.3d. 296, 308 (D.C. Cir. 2004) ("To require States to revise completed plans every time a new model is announced would lead to significant costs and potentially endless delays in the approval processes.").

²⁴ See 40 CFR 93.101. The transportation conformity regulations define the motor vehicle emissions budget as: "*Motor vehicle emissions budget* is that portion of the total allowable emissions defined in the submitted or approved control strategy implementation plan revision or maintenance plan for a certain date for the purpose of meeting reasonable further progress milestones or demonstrating attainment or maintenance of the NAAQS, for any criteria pollutant or its precursors, allocated to highway and transit vehicle use and emissions."

2.3 When existing SIPs and budgets are revised with MOVES6, what do States need to submit to show that a SIP continues to meet applicable requirements?

As stated in sections 2.1 and 2.2 of this Guidance, a SIP revision would not be required solely due to the release of MOVES6 for SIPs that have been approved, submitted, or if significant development has already occurred. However, there may be cases in which a State decides to revise an existing SIP that is based on an older emissions model (e.g., MOVE5 or MOVES4) with MOVES6. As discussed later in this section, in addressing these cases, the EPA is applying the same principles the Agency has in the past when budgets have been revised using a new emissions model. States should consult with their EPA Regional Office prior to submitting MOVES6 SIP revisions. Early consultation can facilitate the EPA's adequacy finding or SIP approval process.

The EPA cannot approve revisions to existing SIPs and budgets unless the revised SIP and budget meet applicable CAA requirements (e.g., for reasonable further progress (RFP), attainment, or maintenance). If a State revises an existing SIP with MOVES6, it must show that the SIP continues to meet applicable requirements with the new level of motor vehicle emissions calculated by the new model.

In addition, the transportation conformity regulations require that “the motor vehicle emissions budget(s), when considered together with all other emissions sources, is consistent with applicable requirements for reasonable further progress, attainment, or maintenance (whichever is relevant to the given implementation plan submission).”²⁵ This and other regulatory requirements must be satisfied before the EPA can find submitted budgets adequate or approve them for use in the transportation conformity process.

The following describes how to meet applicable requirements for existing SIPs that are revised with MOVES6, including ideas for how to streamline these revisions whenever possible.

Use of latest planning assumptions: When SIPs are revised with MOVES6, the motor vehicle emissions inventories for base year, milestone year, and attainment/maintenance year will need to be recalculated with the latest available planning assumptions.²⁶ This should include, at a minimum, the latest information on VMT, speeds, fleet mix, and SIP control measures.^{27,28} Base year and historical year inventories should use the latest data available for those years. Future year projection inventories should also be based on the latest data available.²⁹ If any planning assumptions have not changed since the original

²⁵ See 40 CFR 93.118(e)(4)(iv).

²⁶ See [Guidance for the Use of Latest Planning Assumptions in Transportation Conformity Determinations](#) (EPA-420-B-08-901, Dec. 2008).

²⁷ Planning assumptions also include information about EV fractions in the fleet.

²⁸ See 81 FR 58029 (Aug. 24, 2016) and 83 FR 63022 (Dec. 6, 2018).

²⁹ *Id.*

SIP was submitted, the State should document and explain this in the new SIP submission.

In addition, States will need to consider and evaluate whether growth and control strategy assumptions for non-motor vehicle sources (*i.e.*, stationary, area, and nonroad mobile sources) are still accurate at the time that the MOVES6 SIP revision is developed to ensure the revised emissions inventories are consistent with the relevant applicable requirement (*e.g.*, RFP, attainment, or maintenance). Such assumptions include population and economic assumptions and any allowable emissions relied upon for stationary or other sources.

If these assumptions have not changed, the State can explain this and may be able to re-submit the original SIP with the revised motor vehicle emissions inventories and budgets to meet the remaining requirements as discussed below. In these cases, the State may also provide summary emissions information for categories of sources and references to the applicable portions of the original SIP, so long as those portions continue to apply after the SIP revision with the MOVES6 budgets is approved. Otherwise, the emissions categories in the SIP that have changed should be brought up to date to ensure that the emissions inventory is accurate, current, and consistent with the relevant statutory requirements.³⁰ States should consult with their EPA Regional Office to determine what should be included in the SIP revision.

Milestone, attainment, or maintenance demonstration: As discussed above, SIP revisions must continue to show that the SIP still meets applicable CAA requirements (*e.g.*, RFP, attainment, and maintenance) if previous motor vehicle emissions inventories are updated using MOVES6. The level of analysis and support needed for this demonstration can vary depending upon how MOVES6 affects the level of motor vehicle emissions and whether non-motor vehicle inventories require updating. The modeling and post-processing choices made in the original demonstration could also be a factor.

Areas may be able to revise their motor vehicle emissions inventories and budgets using MOVES6 without revising the entire SIP or completing additional modeling. This could be the case if:

- (1) the SIP meets applicable requirements when the previous motor vehicle emissions inventories are replaced with MOVES6 base year and milestone, attainment, or maintenance year inventories; and
- (2) the State can document that the growth and control strategy assumptions for non-motor vehicle sources continue to be valid and any minor updates do not change the overall conclusions of the SIP.³¹

For example, if an ozone SIP relied on changes in emissions from the base year to an attainment or maintenance year inventory to demonstrate attainment or maintenance, that

³⁰ *Id.*

³¹ *Id.*

requirement would be satisfied by demonstrating that the relative emissions reductions between the base year and the attainment or maintenance year are the same or greater using MOVES6 than they were under the model previously used. Similarly, if an ozone attainment demonstration SIP relied on absolute model predictions to demonstrate attainment for the future attainment year, that requirement would be satisfied by demonstrating that the MOVES6 estimates are equal to or lower than the previous estimates for the future attainment year. Or, if a CO maintenance plan relied on a relative demonstration of maintenance, that requirement could be satisfied by documenting that the relative emissions reductions between the base year and the maintenance year are the same or greater using MOVES6.

If both criteria 1 and 2 in this section are met, the State may submit a SIP revision that contains the updated motor vehicle emissions budgets along with summary emissions information for other source categories with references to the applicable portions of the original SIP. However, if emissions from other source categories in the SIP have changed, those inventories would have to be updated to demonstrate that the SIP submission complies with the applicable statutory requirement for attainment, maintenance, or interim milestones. Any changes in control strategies, including regulations that apply to stationary or area sources and affect those portions of the inventories, will need to be factored in to both base and future year inventories to determine whether the SIP still meets the applicable statutory requirement. However, a State may not need to revise emissions for a non-motor vehicle emissions inventory category if a regulatory change resulted in a reduction in emissions in the attainment or maintenance year relative to the existing SIP. In that circumstance, the SIP could be assumed to continue to demonstrate attainment or maintenance.

Regardless of the methodology used, a more rigorous assessment of a SIP's RFP, attainment, or maintenance demonstration may be necessary if a State decides to reallocate the original SIP's excess emissions reductions to the motor vehicle emissions budget(s) as a safety margin.³² In other words, the State will need to assess how its original demonstration is affected by using MOVES6 and confirm whether excess emissions reductions exist prior to allocating them to the budget(s). The assessment of the SIP's attainment or maintenance demonstration, after onroad emissions are calculated using MOVES6, would need to be sufficiently detailed to allow the State to determine the magnitude of the available safety margin, if any, and to decide how much of the available safety margin to allocate to the motor vehicle emissions budgets for a given year. This assessment is critical to ensure that SIP budgets in the context of all other emissions sources continue to meet the transportation conformity regulations adequacy criteria.³³

³² See 40 CFR 93.101. A "safety margin" is the amount by which the total projected emissions from all sources of a given pollutant are less than the total emissions that would satisfy the applicable requirement for RFP, attainment, or maintenance. A safety margin would be calculated for each applicable pollutant and precursor for a given NAAQS. See also 40 CFR 93.124(a) for its application.

³³ See 40 CFR 93.118(e)(4).

2.4 If motor vehicle emissions budgets in a SIP need to be remodeled with MOVES6 or if a State needs to address additional RFP years, should the base year also be remodeled with MOVES6?

A State should remodel a base year inventory with MOVES6 if the motor vehicle emissions budgets need to be remodeled in MOVES6 or if the State needs to address additional RFP years. For example, if the State is revising RFP motor vehicle emissions budgets, and it has an EPA-approved base year inventory completed with an earlier version of MOVES, it should recalculate the base year emissions with MOVES6 so that it can verify that the SIP continues to fulfill RFP requirements.³⁴ Similarly, if a State is required to address additional RFP years, it should recalculate the base year emissions so that it can verify that the SIP will fulfill RFP requirements for the new future years. If the base year emissions were not recalculated with MOVES6, it would not be possible to tell if RFP requirements were met because the calculations would be using results from different versions of the MOVES model.

2.5 How will MOVES6 affect the need for emissions reductions in the development of future attainment or maintenance SIPs?

Whether MOVES6 will affect the need for emissions reductions in a future SIP depends on the unique circumstances of each nonattainment or maintenance area. The emissions comparisons depend on the pollutants of concern, the dates of concern, existing local regulations, travel activity patterns, fleet age, and mix of cars and trucks. In some cases, a change from an earlier MOVES version to MOVES6 may result in increased emissions estimates, while in other cases it may result in decreased emissions estimates for the relevant time periods.

Moreover, because of the complex chemistry and meteorology of air pollution, the implications of changes in onroad and nonroad vehicle emissions may not be clear until multiple years are examined, and the new emissions levels are applied in an air quality model. The relative difference in emissions over time between an earlier MOVES version and MOVES6 may be as important as, or more important than, differences between the models in any one year. Therefore, MOVES6 users should not immediately assume that increases or decreases in emissions in any single year imply the need for more or fewer SIP control measures until those changes in emissions have been applied in the complete SIP context.

³⁴ One exception to this is for the 2022 base year inventory in the EPA's 2022v2 Emissions Modeling Platform, which was calculated using MOVES5 and based on the 2020 NEI. Due to the nature of the changes between MOVES5 and MOVES6, there is functionally no emissions difference between the two models for analysis years 2023 and earlier, assuming all inputs are the same. It would be appropriate to use the 2022v2 Emissions Modeling Platform's 2022 base year inventory when an RFP demonstration relies upon a 2022 base year and there have been no significant changes in State or local assumptions for that year. In such a case, any future analysis years would be calculated using MOVES6.

States and other agencies in the interagency consultation process are encouraged to consider if and how MOVES6 will impact their future transportation conformity determinations and discuss any concerns with the appropriate EPA Regional Office.

2.6 Can MOVES6 be used for vehicle emission I/M performance standard modeling for 2015 ozone NAAQS SIPs?

For the 2015 ozone NAAQS, States with urbanized ozone nonattainment areas classified (or reclassified) as Moderate or higher are required to submit an I/M SIP that includes a performance standard modeling (PSM) analysis.³⁵ The purpose of a PSM analysis is to evaluate whether a vehicle I/M program meets the applicable performance standard. Procedures relevant to setting up the model, preparing inputs, and processing results can be found in the EPA's PSM guidance.³⁶

As discussed in section 2.1 of this Guidance, because there is no grace period for the use of a new emissions model in SIP development, MOVES6 should be used to conduct any new PSM analyses for the 2015 ozone NAAQS. However, State and local agencies that have already completed significant work on an I/M SIP with a previous version of MOVES prior to the release of MOVES6 may continue to use it for that purpose. States should consult with their EPA Regional Office if they have questions about how MOVES6 affects SIPs under development in specific nonattainment or maintenance areas.

Though California generally uses the EMFAC model for onroad mobile emissions modeling, MOVES6 is an appropriate model for PSM applications within California, assuming all inputs and assumptions are consistent with the vehicle regulations and I/M program. The EPA will address the use of MOVES for I/M PSM in California in any related action on an I/M SIP.

When doing PSM modeling using a previous version of MOVES, the EPA does not expect impacts from the Endangerment Finding Rescission Rule or other updates in MOVES6 since a PSM analysis is a relative comparison between an actual implemented I/M program and the applicable Federal model benchmark program. As such, in general, any potential impacts resulting from regulatory changes would similarly impact both the implemented and Federal model benchmark programs in a PSM analysis.

³⁵ See 40 CFR 51.372(a)(2).

³⁶ See [Performance Standard Modeling for New and Existing Vehicle Inspection and Maintenance \(I/M\) Programs Using the MOVES Mobile Source Emissions Model](#) (EPA-420-B-22-034, October 2022).

Section 3. Using MOVES6 in Transportation Conformity

3.1 What is transportation conformity?

Transportation conformity is required to ensure that federally funded or approved highway and transit activities are consistent with (*i.e.*, “conform to”) the purpose of the SIP. Conformity to the purpose of the SIP means that transportation activities will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or any interim milestones.³⁷ The EPA’s transportation conformity regulations establish the criteria and procedures for determining whether metropolitan transportation plans, TIPs, and federally supported highway and transit projects conform to the SIP.³⁸ Transportation conformity applies to designated nonattainment and maintenance areas for transportation-related criteria pollutants: ozone, PM_{2.5}, PM₁₀, CO, and NO₂.³⁹

3.2 When will the use of MOVES6 be required for regional emissions analyses in transportation plan and TIP conformity determinations?

The EPA will be publishing a *Federal Register* notice to announce the availability of MOVES6 for official purposes for States other than California.⁴⁰ As noted in section 1.1 of this Guidance, the EPA, in consultation with DOT, intends to establish a two-year grace period before MOVES6 needs to be used for regional emissions analyses in transportation conformity determinations of transportation plans and TIPs.⁴¹

CAA section 176(c)(1) requires conformity determinations to be based on “the most recent estimates of emissions.” Additionally, the transportation conformity regulations require conformity determinations to be based on “the latest emission estimation model available,” and further state that this requirement is satisfied if the most current version of the EPA’s motor vehicle emissions model is used in the conformity analysis.⁴² When the EPA announces a new emissions model, such as MOVES6, the Agency establishes a

³⁷ See 42 U.S.C. 7506(c).

³⁸ See 40 CFR parts 51 and 93.

³⁹ “Maintenance areas” are those areas initially designated nonattainment for a criteria pollutant and subsequently redesignated to attainment after 1990. Maintenance areas have SIPs developed under CAA section 175A. See also 40 CFR 93.101.

⁴⁰ In California, a different onroad emissions model, the EMFAC model, is used for regulatory purposes instead of MOVES. MOVES can also model emissions in the District of Columbia, Puerto Rico and the U.S. Virgin Islands.

⁴¹ The grace period also applies in the case that a regional emissions analysis is done for a project not included in a conforming transportation plan or TIP (*i.e.*, a project in an isolated rural area). See the transportation conformity regulations at 40 CFR 93.101 for the definition of an isolated rural area and 40 CFR 93.109(g) for how conformity is done in an isolated rural area.

⁴² See 40 CFR 93.111. Also, the EPA notes that in the case of 1997 ozone NAAQS orphan areas, regional emissions analyses are not required for that NAAQS. For additional information, see the [Transportation Conformity Guidance for the South Coast II Court Decision](#) (EPA-420-B-18-050, November 2018).

grace period before the model must be used for transportation conformity purposes.⁴³ In consultation with DOT, the EPA must consider several factors when establishing a grace period for conformity determinations, including the degree of change in the emissions model and the effects of the new model on the transportation planning process.⁴⁴

MOVES6 includes the latest information for the national default projections of EVs, whereas the information in earlier versions of MOVES needs to be updated for new or delayed analyses after the MOVES6 release. Therefore, during the two-year MOVES6 grace period, modelers beginning new analyses with MOVES5 may not rely on the model's national default EV projections. *See* section 3.5 of this Guidance.⁴⁵

The EPA encourages State and local agencies to use the latest version of the MOVES model available at the time that any transportation conformity modeling begins so that users can take advantage of the latest information and improvements included in the model.

3.3 Does the release of MOVES6 with a new conformity grace period affect the previous conformity grace period established when MOVES5 was released?

The previous conformity grace period established when MOVES5 was released is unaffected by the release of MOVES6. The MOVES6 conformity grace period is separate and distinct from the two-year conformity grace period established with the release of the previous version of the model, MOVES5. The two-year grace period established by the EPA's December 2024 MOVES5 Notice of Availability in the *Federal Register* is unchanged by the release of MOVES6 and continues to be in effect until December 11, 2026.⁴⁶

However, like MOVES5, MOVES4 includes national default projections for EVs that do not reflect the Endangerment Finding Rescission Rule and other updates in MOVES6, and these projections can no longer be used for new or delayed conformity analyses. For more information, see section 3.5 of this Guidance. In addition, see Figure 1 in section 3.10 of this Guidance for an illustration of the MOVES5 and MOVES6 conformity grace periods.

⁴³ *See* 40 CFR 93.111(b).

⁴⁴ *See* 40 CFR 93.111(b)(2)).

⁴⁵ Modelers that begin new analyses using MOVES4 during the MOVES5 grace period must also change the EV projections for future years. *See* section 3.5 of this Guidance.

⁴⁶ *See* 89 FR 99862 (Dec. 11, 2024).

3.4 Under what circumstances will the MOVES6 grace period for regional emissions analyses be shorter than two years?

As noted previously in section 1.1 of this Guidance, the EPA intends to include in the *Federal Register* notice a two-year grace period for using MOVES6 for transportation conformity purposes. Under that approach, the MOVES6 conformity grace period for regional emissions analyses would no longer apply two years after the EPA publishes the *Federal Register* notice announcing MOVES6, unless new MOVES6-based SIP budgets become effective sooner.

In such a case, once these new MOVES6-based approved or adequate budgets become effective, the grace period can no longer be used for that specific area and pollutant. Instead, the new regional emissions analysis for that pollutant must use MOVES6 because the transportation conformity determination would be demonstrating consistency with a MOVES6-based budget under 40 CFR 93.118. The interagency consultation process must be used to develop any SIP revision.⁴⁷

It is possible that areas designated nonattainment or maintenance for more than one pollutant may rely on both MOVES6 and MOVES5 to determine transportation conformity for different pollutants during the MOVES6 grace period.⁴⁸ For example, if a State revises a previously submitted (but not approved) MOVES5-based PM₁₀ SIP with MOVES6 and the EPA finds these revised MOVES6 budgets adequate for transportation conformity, such budgets would apply for conformity on the effective date of the *Federal Register* notice announcing the Agency's adequacy finding. In this example, if an area was in nonattainment for PM₁₀ and ozone, the MOVES6 grace period would end for PM₁₀ once the EPA found the new MOVES6-based SIP budgets adequate. However, MOVES5 could continue to be used for ozone transportation conformity determinations until the end of the MOVES6 grace period for regional emissions analyses.⁴⁹ If modelers want to continue to use MOVES5, the default EV projections must be changed. See sections 1.5 and 3.5 of this Guidance for additional information.⁵⁰

In general, budgets in submitted SIPs cannot supersede approved budgets until the submitted SIP is approved. In most cases, if a State revises previously approved budgets based on an earlier EPA emissions model with MOVES6 budgets, the revised MOVES6 budgets could not be used for transportation conformity purposes until the EPA approves them (*i.e.*, approves the SIP revision).⁵¹

⁴⁷ See 40 CFR 93.105(b)(1).

⁴⁸ Areas may also rely on MOVES4 to determine transportation conformity during the MOVES5 grace period consistent with applicable requirements.

⁴⁹ In this example, such an area would use MOVES6 to develop a regional emissions analysis for comparison to the revised MOVES6-based budgets (*e.g.*, PM₁₀ and NO_x budgets in the PM₁₀ SIP). The regional emissions analysis for ozone could be based on MOVES5 for the VOC and NO_x budgets in the ozone SIP for the remainder of the conformity grace period so long as EV projections are changed. See section 1.5 of this Guidance for additional information.

⁵⁰ See 40 CFR 93.110(a). Modelers who continue to use MOVES4 during the MOVES5 grace period must also change the EV projections for future years.

⁵¹ See 40 CFR 93.118(e)(1).

However, an approved budget can be replaced by an adequate budget if the EPA's approval of the initial budgets specifies that the budgets being approved may be replaced in the future by new adequate budgets.⁵² This flexibility has been used in limited situations in the past. In such cases, the MOVES6-based budgets would be used for transportation conformity purposes once they have been found adequate, if requested by the State in its SIP submission and if specified in the EPA's SIP approval. States should consult with their EPA Regional Office to determine if this flexibility could be applied to their situation.

3.5 How will the MOVES6 conformity grace period be implemented for regional emissions analyses?

During the MOVES6 grace period, areas should use interagency consultation to examine how MOVES6 will impact their regional emissions analyses and future transportation plan and TIP conformity determinations. Isolated rural areas should also consider how future regional emissions analyses will be affected when MOVES6 is required, if such an analysis is anticipated. Areas should carefully consider whether the SIP and budget(s) should be revised with MOVES6 or if transportation plans and TIPs should be revised before the end of the conformity grace period.

The transportation conformity regulations provide flexibility for analyses started before the *Federal Register* Notice of Availability for MOVES6 is published or during the grace period. Regional emissions analyses started before or during the grace period with MOVES5 can be completed using MOVES5.⁵³ Interagency consultation should be used if it is unclear if a MOVES5-based analysis was begun before the end of the MOVES6 grace period.

Transportation conformity determinations must also meet the requirements for using the latest planning assumptions. The latest planning assumptions must be used when the transportation conformity analysis begins, but if new information becomes available after that point, it does not need to be included unless a significant delay in the analysis occurs as determined through interagency consultation.⁵⁴ The fraction of vehicles that are EVs in future years in MOVES5 are not currently considered the latest planning assumptions for transportation conformity purposes since they do not reflect the Endangerment Finding Rescission Rule or other changes that affect EV projections incorporated in MOVES6. The sub-sections below describe how the requirement to use the latest planning assumptions affects the use of EV projections in MOVES5 for transportation conformity determinations.⁵⁵

⁵² *Id.*

⁵³ See 40 CFR 93.111(c). Also, modelers that continue to use MOVES5 or MOVES4 during the MOVES6 grace period must change the EV projections as described in this section and section 1.5 of this Guidance.

⁵⁴ See 40 CFR 93.110.

⁵⁵ The information in section 3.5 of this Guidance is also relevant for the latest planning assumption requirements for MOVES4 analyses begun during the MOVES5 grace period.

3.5.1 Transportation conformity determinations started before the release of MOVES6

For transportation conformity analyses started before the release of MOVES6, the national default EV projections in MOVES5 can be used by transportation agencies as part of their latest planning assumptions so long as:

1. The analysis has already begun (*i.e.*, the analysis was started prior to the MOVES6 release).

The “time the analysis begins” is defined as “*the point at which the MPO or other designated agency begins to model the impact of the proposed transportation plan or TIP on travel and/or emissions.*”⁵⁶ Analyses that began prior to the MOVES6 release include analyses that started prior to or shortly after the Endangerment Finding Rescission Rule. When these analyses began, the default EV projections in MOVES5 represented the EPA’s latest national default information of future year fleet characteristics, so the MPO’s or other designated agency’s use of these projections in such modeling were part of the “*most recent planning assumptions in force at the time the conformity analysis begins,*”⁵⁷ and

2. There is no significant delay in the analysis, per 40 CFR 93.110(a) which states: “*New data that becomes available after an analysis begins is required to be used in the conformity determination only if a significant delay in the analysis has occurred, as determined through interagency consultation.*” If there has been a significant delay, modelers must use MOVES6 or update their MOVES5 modeling to ensure that EV projections are updated.

There may be cases in which modelers did not rely upon the increasing EV projections in MOVES5 and instead assumed no EV growth, no EVs at all, or trends based on an enforceable State or local program. The interagency consultation process should be used in these cases to determine whether these assumptions are also appropriate without further revision.

3.5.2 Transportation conformity determinations started after the release of MOVES6

For transportation conformity determinations in which the analysis starts after the release of MOVES6, modelers must either:

- Update their MOVES5 modeling to include updated EV fraction projections; or
- Use MOVES6.⁵⁸

⁵⁶ See 40 CFR 93.110(a).

⁵⁷ *Id.*

⁵⁸ *Id.*

Using MOVES6 ensures that modelers include the latest national default projections for EVs and take advantage of other updates in this version of the model.⁵⁹

If new modeling has begun with MOVES5 during the MOVES6 conformity grace period, modelers must include the latest information on EV projections to meet the requirements of 40 CFR 93.110(a). New transportation conformity analyses that use the MOVES AVFT Tool's "National Average" or "Proportional" method would not be consistent with the transportation conformity regulation requirements at 40 CFR 93.110(a). To be consistent with the transportation conformity regulations, such new or delayed analyses must now use either the "Constant Fraction" or the "Known Fractions" projection methods in MOVES5.⁶⁰ See section 1.5 of this Guidance for additional information.

Note that an updated transportation conformity analysis is not required when new planning assumptions become available unless there is a significant delay. Therefore, during the MOVES6 grace period, a conformity determination for a transportation plan or TIP can still rely on a previous emissions analysis done with MOVES5, even if it includes default EV projections, so long as the other requirements in 40 CFR 93.122(g) are met.

3.5.3 Transportation conformity determinations started after the MOVES6 grace period ends

When the MOVES6 grace period ends, MOVES6 will replace MOVES5 as the latest EPA motor vehicle emissions model for transportation conformity purposes in States other than California. In general, this means that all new regional emissions analyses started after the end of the grace period must be based on MOVES6, even if the SIP is based on a previous EPA emissions model.⁶¹

Also, when the grace period ends, transportation conformity determinations cannot rely on a previous emissions analysis, as allowed by 40 CFR 93.122(g), that was prepared using MOVES5 because of the requirement in 40 CFR 93.111.

As discussed in more detail in the MOVES Technical Guidance, MOVES allows for multiple approaches in developing a regional emissions analysis, which may result in small differences in results.⁶² The EPA recommends that the same approach be used in any analysis that compares two or more cases (*e.g.*, the SIP budget and the regional emissions analysis for transportation conformity). Interagency consultation must be used to evaluate and choose model(s) and associated methods and assumptions for transportation conformity determinations.⁶³ If different approaches are used for the SIP

⁵⁹ Please refer to section 4.8.3 of the MOVES6 Technical Guidance for additional information about EV projections.

⁶⁰ See section 1.5 of this Guidance and the MOVES6 Technical Guidance for additional information.

⁶¹ See 40 CFR 93.111.

⁶² See section 1.4 of this Guidance for reference information for the MOVES Technical Guidance.

⁶³ See 40 CFR 93.105(c)(1)(i).

budget and the regional emissions analysis for practical reasons, interagency consultation should be used to determine how to address (and minimize) any differences in results. The methods used to develop inventories should be fully documented in the SIP and transportation conformity determination.

3.6 When will the use of MOVES6 be required for hot-spot analyses in project-level transportation conformity determinations?

The *Federal Register* notice that announces the availability of MOVES6 for official purposes intends to establish the grace period for both regional emissions analyses and hot-spot analyses. The structure of MOVES6, including at the Project Scale, is fundamentally the same as MOVES5, although there are new data within the model. Hot-spot analyses are required to be included in transportation conformity determinations for all non-exempt FHWA/Federal Transit Administration (FTA) projects in CO nonattainment and maintenance areas, and for “projects of air quality concern” in PM_{2.5} and PM₁₀ nonattainment and maintenance areas.⁶⁴ See section 3.2 of this Guidance for more information about the CAA and transportation conformity requirements for establishing a grace period for hot-spot analyses.

Once the EPA announces the availability of MOVES6 in the *Federal Register*, MOVES6 will be the latest EPA motor vehicle emissions model for new transportation conformity hot-spot analyses in States other than California and will be required for new analyses that begin after the grace period ends. The MOVES6 grace period applies to the use of MOVES6 and any future minor revisions that occur during the grace period.

3.7 How will the MOVES6 grace period be implemented for CO, PM₁₀, and PM_{2.5} hot-spot analyses?

The transportation conformity regulations contain the requirements for when a hot-spot analysis is required for project-level conformity determinations.⁶⁵ In addition, the transportation conformity regulations provide flexibility for analyses started before the end of the grace period. A conformity determination for a transportation project may be based on a previous model if the analysis was begun before or during the grace period and if the final environmental document for the project is issued no more than three years after the issuance of the draft environmental document.⁶⁶

⁶⁴ See 40 CFR 93.116 and 93.123 for more information.

⁶⁵ See 40 CFR 93.116 and 93.123. In CO nonattainment and maintenance areas, a hot-spot analysis is required for all non-exempt projects, with quantitative hot-spot analyses being required for larger, congested intersections and other projects. In addition, the transportation conformity regulations require that a quantitative PM₁₀ or PM_{2.5} hot-spot analysis be completed for certain projects of local air quality concern.

⁶⁶ See 40 CFR 93.111(c).

Project-level transportation conformity determinations in which the hot-spot analysis has already begun (*i.e.*, the analysis was started prior to the MOVES6 release) with MOVES5 may have included the model's national default EV projections.⁶⁷ Based on the latest planning assumptions requirements of the transportation conformity regulations, these conformity determinations may be completed because those EV projections were relied on as the most recent assumptions when the analysis began, so long as there is no significant delay in the analysis.⁶⁸

For these transportation conformity determinations, the interagency consultation process should be used to confirm when the analysis began, the EV projections used, and whether there is any delay in the analysis that would require new EV projections to be included.

In addition, there may be cases in which a project-level transportation conformity determination using MOVES5 began before or during the MOVES6 grace period that assumed no EV growth, no EVs at all, or an enforceable State or local program. The interagency consultation process should be used in these cases to determine whether these assumptions are also appropriate without further revision.

For CO, PM₁₀, and PM_{2.5} hot-spot analyses that start during the MOVES6 grace period, project sponsors can choose to use MOVES5 or MOVES6, since both are available during the grace period.⁶⁹ However, using MOVES6 ensures that modeling includes updated national default projections for EVs. If modelers want to use MOVES5, the default EV projections for future years must be changed. *See* section 1.5 of this Guidance for additional information.

Interagency consultation must be used to evaluate and choose model(s) and associated methods and assumptions for transportation conformity determinations.⁷⁰ This includes which MOVES version to use for a hot-spot analysis. Project sponsors should use the consultation process to determine the most appropriate options for a given situation.

Any new CO, PM₁₀, or PM_{2.5} hot-spot analysis for transportation conformity purposes begun after the end of the MOVES6 grace period must be based on MOVES6.⁷¹

EPA guidance on how to use MOVES for CO and PM hot-spot analyses is available (*see* section 1.4 of this Guidance for the list of available guidance). *See* the EPA's [Project-Level Conformity and Hot-Spot Analyses](#) website for the latest information and guidance on how to conduct CO, PM₁₀, and PM_{2.5} hot-spot modeling for transportation conformity purposes.

The length of the MOVES6 grace period for hot-spot analyses would not be affected by an early submission of MOVES6-based SIP budgets. Using the same example as described in section 3.4 of this Guidance, the two-year grace period would apply for

⁶⁷ The remainder of section 3.7 of this Guidance also applies to similar cases in which MOVES4 analyses started during the MOVES5 grace period that may also have included national default EV projections.

⁶⁸ *See* 40 CFR 93.110(a).

⁶⁹ *See* 40 CFR 93.111(c).

⁷⁰ *See* 40 CFR 93.105(c)(1)(i).

⁷¹ *See* 40 CFR 93.111.

PM₁₀ hot-spot analyses even if approved or adequate MOVES6-based budgets for PM₁₀ are available before the grace period ends.

Please consult with your EPA Regional Office if there are questions about which model should be used in a project-level transportation conformity determination.

3.8 How will MOVES6 affect FHWA's CO categorical hot-spot finding?

FHWA released an updated CO categorical hot-spot finding for intersection projects in January 2023 that was based on MOVES3.⁷² Any CO hot-spot analyses for transportation conformity purposes begun after September 12, 2025, may no longer rely on the January 2023 CO categorical hot-spot finding because, as of this date, new analyses cannot be based on MOVES3. Any future categorical hot-spot finding will be posted on the EPA's and DOT's websites.

3.9 How will MOVES6 affect CO hot-spot protocols previously approved into the SIP?

The transportation conformity regulations allow areas to develop alternate procedures for localized CO hot-spot analyses, if developed through interagency consultation and approved by the EPA Regional Administrator.⁷³ Some States have chosen in the past to develop such procedures based on previously approved EPA emissions models.

During the MOVES6 grace period, areas with previously approved CO hot-spot protocols based on MOVES5 may continue to rely on these protocols. Once the MOVES6 grace period ends, new CO hot-spot analyses for transportation conformity purposes will need to be based on MOVES6 and thus may no longer rely on CO hot-spot protocols based on MOVES5 or earlier versions.

3.10 When does the MOVES5 conformity grace period end?

As discussed in section 3.3 of this Guidance, the previous conformity grace period established when MOVES5 was released is unaffected by the release of MOVES6. The MOVES5 grace period ends December 11, 2026. Therefore, if areas do not yet have MOVES5- or MOVES6-based SIP budgets, MOVES4 could be used for a transportation conformity determination that includes a regional emissions analysis if the analysis is begun on or before December 11, 2026.⁷⁴

⁷² See the information under the "CO Hot-Spot Analyses: FHWA Categorical Finding" heading on the [EPA's Project-Level Conformity and Hot-Spot Analyses](#) website.

⁷³ See 40 CFR 93.123(a)(1).

⁷⁴ See 40 CFR 93.111(c).

Figure 1 depicts the use of MOVES model versions for transportation conformity in the near term. Note it is possible to skip the use of MOVES5 altogether for transportation conformity and go directly from using MOVES4 to using MOVES6. MOVES4 could also be used for a transportation conformity determination that includes a hot-spot analysis if the analysis is begun on or before December 11, 2026.

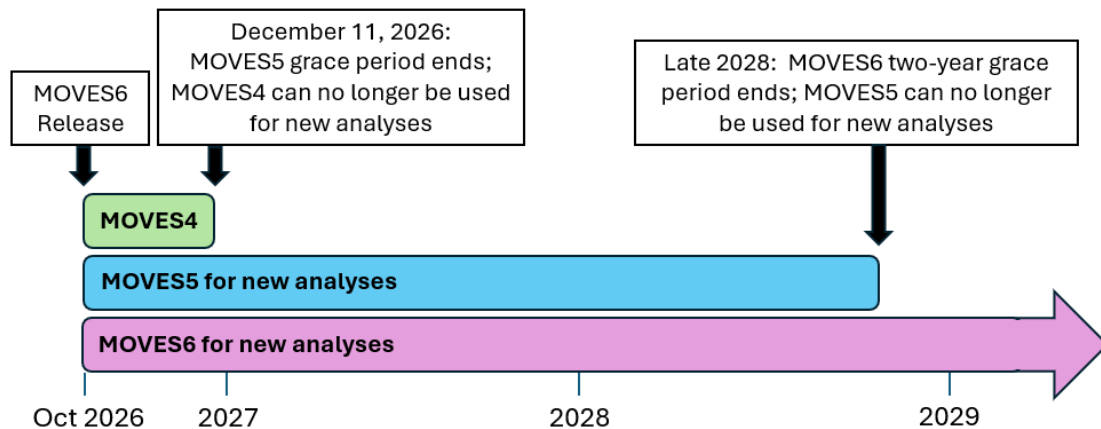


Figure 1: Use of MOVES Versions in Transportation Conformity Analyses.

For any new modeling with MOVES4, modelers must include the latest information on EV projections to meet the requirements of 40 CFR 93.110(a). Modelers should use the AVFT Tool to change EV levels in future years. *See* sections 1.5, 3.5, and 3.7 of this Guidance for additional information.

However, the EPA encourages modelers to switch to MOVES6. Using MOVES6 ensures that modelers relying on national default AVFT information include the latest information about EV projections and take advantage of other updates in this version of the model.

Interagency consultation must be used to evaluate and choose model(s) and associated methods and assumptions for transportation conformity determinations.⁷⁵ This includes choosing which MOVES version to use for a transportation conformity determination that includes a regional emissions analysis or a hot-spot analysis. If your area intends to use MOVES4 for a transportation conformity analysis, please refer to the MOVES5 Notice of Availability for more information. Modelers are encouraged to check with the relevant EPA Regional contact for transportation conformity (*see* section 1.7 of this Guidance) prior to beginning any MOVES4 model runs for transportation conformity purposes.

⁷⁵ *See* 40 CFR 93.105(c)(1)(i).

Section 4. Using MOVES6 in General Conformity

4.1 What is general conformity?

CAA section 176(c)(4)(A) directs the EPA to establish criteria and procedures for determining conformity for Federal activities not otherwise defined as transportation plans, programs, or projects. The general conformity regulations are codified under 40 CFR Part 93, subpart B and prohibit a Federal agency from engaging in, providing, funding, issuing a license or permit, or approving any activity that causes emissions to originate within a nonattainment or maintenance area unless the activity will not interfere with (*i.e.*, will conform to) the air quality plans established in the applicable implementation plan.^{76, 77} General conformity is not limited to transportation-related pollutants and applies to any criteria pollutant for which an area is designated nonattainment or is a maintenance area with a CAA section 175A maintenance plan, and includes the criteria pollutant precursors.⁷⁸

4.2 When will the use of MOVES6 be required under the General Conformity Rule?

When a Federal agency is required to predict motor vehicle emissions to include in its general conformity applicability analysis, the analysis must be prepared according to the requirements at 40 CFR 93.159(b)(1).⁷⁹ When the EPA updates the Agency's motor vehicle emissions model, a grace period of at least three months applies unless the Agency announces a longer grace period for the model, which may be as long as 24 months. The EPA will specify a two-year grace period for MOVES6 in the *Federal Register* Notice of Availability and that same grace period applies for general conformity analyses under 40 CFR 93.159(b) when using MOVES6.⁸⁰

As noted in section 1.1 of this Guidance, the MOVES6 grace period is separate and distinct from the MOVES5 grace period. The two-year grace period established by the EPA's December 2024 [MOVES5 Notice of Availability](#) in the *Federal Register* is unchanged by the release of MOVES6 and continues to be in effect until December 11, 2026.

If the Federal agency considers the EPA's most current specified motor vehicle emissions model to be inappropriate for their project, the agency may, at its discretion and as allowed under 40 CFR 93.159(b), obtain written approval from the appropriate EPA Regional Administrator to use a modified version of the MOVES model or an approved

⁷⁶ See 40 CFR 93.155 and 93.156 for general conformity reporting and public participation requirements.

⁷⁷ See 40 CFR 93.152 definition of *Applicable implementation plan*.

⁷⁸ As stated in section 1.1 of this Guidance, this Guidance describes how and when to use the latest version of the MOVES emissions model for general conformity and other purposes. This Guidance is not applicable to conformity determinations in California where a different onroad emissions model, EMFAC, is used for regulatory purposes instead of MOVES.

⁷⁹ See 40 CFR 93.152 definition of *Applicability analysis*.

⁸⁰ See 40 CFR 93.111(b)(1).

substitute model. The use of a modified or substitute model will be approved only on a case-by-case basis or, if appropriate, on a generic basis for a specific Federal agency program.

Section 5. Using MOVES6 for Other Purposes

5.1 Can MOVES6 be used to estimate mobile source air toxics (MSATs)?

MOVES6 estimates emissions for MSATs such as benzene, 1,3-butadiene, formaldehyde, acetaldehyde, acrolein, naphthalene, and ethylbenzene.⁸¹ MOVES6 is the EPA's best available tool for quantifying emissions of these MSATs. State and local agencies, academic institutions, and other parties interested in analyzing MSAT emissions from transportation projects should consider using the latest version of MOVES.

The EPA notes that there are no SIP and transportation conformity requirements for air toxics. Regarding the analysis of MSAT emissions in the National Environmental Policy Act (NEPA) process, DOT (or where DOT has assigned the role, the State Department of Transportation) has responsibility for implementing NEPA for federally funded or approved transportation projects.

5.2 What role will MOVES6 play in the EPA's National Emissions Inventory?

The EPA plans to use the latest released version of MOVES available at the time of the 2026 NEI development to compute the 2026 NEI emissions. The NEI is updated with State, local, and Tribal submissions once every three years.⁸² In September 2026, the EPA published the [2023 NEI](#) for which mobile source emissions were generated with MOVES5 using a mix of EPA and State-provided inputs. For more information, please refer to the EPA's [National Emissions Inventory \(NEI\)](#) website.

⁸¹ More information, including a list of the MSATs in MOVES, can be found in the EPA's report, Air Toxic Emissions from Onroad Vehicles in MOVES3, available at: www.epa.gov/moves/moves-onroad-technical-reports.

⁸² NEI onroad emissions for California are based on California's EMFAC model.