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MEMORANDUM

TO: Kelly Russell, Chair, TPB
Daniel Sze, Chair, CEEPC
Brandon Todd, Chair, MWAQC

FROM: Kanti Srikanth, Director, Department of Transportation Planning
Steve Walz, Director, Department of Environmental Programs

CC: TPB, CEEPC, MWAQC Members

SUBJECT: Preliminary assessment of the Safer Affordable Fuel-Efficient (SAFE) Vehicles Final Rule for Model Years 2021-2026

DATE: April 24, 2020 DRAFT

On March 30, 2020, the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) and the U.S. Environmental Protection Agency (EPA) signed the final Safer Affordable Fuel-Efficient Vehicles Rule (2020 SAFE Rule). This rule finalizes updated Corporate Average Fuel Economy (CAFE) and greenhouse gas (GHG) emissions standards and establishes new standards for model year (MY) 2021-2026 passenger cars and light trucks. The rule will become final 60 days after it is published in the Federal Register.

This memo provides a preliminary staff assessment of the final rule, background information, and previous board/committee actions on the matter.

The 2020 SAFE Rule replaces the "2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards" that were issued in October 2012 (2012 Rule). The new standards require a 1.5% annual improvement for fuel economy and carbon dioxide (CO₂) emissions standards for vehicles manufactured from MY 2021 through MY 2026. This is lower than the standards promulgated in 2012, which required improvements of approximately 5% per year.

PRELIMINARY ASSESSMENT

This 2020 SAFE Rule will make the collective effort to achieve the region's GHG emissions targets more difficult as the rule will reduce the anticipated GHG reductions from the transportation sector. The rule could also make attaining and maintaining the 2015 ozone standards more difficult should it decrease the anticipated vehicular VOC and NOx emissions reductions that are currently forecasted.

The final 2020 SAFE Rule will primarily impact fuel economy and GHG emissions. The vehicle standards established in the 2020 SAFE Rule will set back the region's efforts to reduce GHG emissions from passenger cars and light duty trucks. According to the Final Environmental Impact Statement (FEIS) released by NHTSA in March 2020, GHG emissions from affected vehicles will increase 9% between 2021 and 2100 as compared to the 2012 standards.

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The vehicle standards in the 2020 SAFE Rule could, to a lesser extent, affect the ozone related emissions reductions of VOC and NOx that this region will need to meet federal standards for ozone. The region is currently a maintenance area for federal 2008 ozone standards and a non-attainment area for federal 2015 ozone standards. The region's plan to maintain the 2008 ozone standards had assumed the 2012 fuel efficiency and GHG reduction levels. The final 2020 SAFE Rule states that criteria pollutants will not change significantly, but that conclusion is not region-specific and the rule notes that impacts will vary from area to area depending on factors such as vehicle fleet composition and analysis year. EPA's emissions estimation model (MOVES) is unable to assess the change in VOC and NOx emissions in our region from the roll back of 2012 Rule until an update of the model is released. For this reason, we are unable to determine how much this would impact our ability to maintain the 2008 ozone standard or help attain the 2015 ozone standard at this time.

BACKGROUND

On August 24, 2018, EPA and NHTSA jointly published, in the Federal Register, a Notice of Proposed Rulemaking (NPRM) entitled, "The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks." In the NPRM:

1. NHTSA proposed regulatory text implementing its statutory authority to set nationally applicable fuel economy standards that made explicit that state programs would be preempted under NHTSA's authorities.
2. EPA proposed to withdraw the waiver it had previously provided to California for that state's GHG and zero emission vehicles (ZEV) programs under Section 209 of the Clean Air Act (CAA).
3. The agencies proposed new and amended GHG and Corporate Average Fuel Economy (CAFE) standards for model year 2021 to 2026 light duty vehicles.

The first two items were addressed on September 27, 2019, when NHTSA and EPA published in the Federal Register their final action entitled the "One National Program Rule" to enable the federal government to provide nationwide uniform fuel economy and greenhouse gas emissions standards for automobile and light duty trucks and revoking the waiver previously provided to California under Section 209 of the Clean Air Act. The One National Program Rule went into effect on November 26, 2019.

The State of California had enacted its California's Advanced Clean Car programs for GHG emissions and ZEVs on the basis of the 2013 preemption waiver. Consequently the State of California filed a lawsuit against the EPA and NHTSA challenging this first part of the SAFE Vehicles Rule, which withdrew the Clean Air Act preemption waiver granted in 2013 to the State of California, that allowed California to establish fuel economy and greenhouse gas emission standards for automobile and light duty trucks. The District of Columbia, Maryland, and Virginia joined this lawsuit. Note that Maryland's Clean Car Program, based on California's Advanced Clean Car program, is part of this region's 2008 ozone standards Maintenance SIP and a key element of the region's strategy to achieve its GHG reduction targets.

Transportation Planning Board (TPB), Climate, Energy and Environment Policy Committee (CEEPC), and Metropolitan Washington Air Quality Committee (MWAQC) were provided with a memo in October 2019 with a preliminary staff assessment that the federal One National Program Rule will negatively affect the region's efforts to meet federal air quality standards and will reduce impact of region's work towards the region's greenhouse gas emissions targets.

The third item of the August 24, 2018 NPRM, amending CAFE and GHG emissions standards for MY 2021-2026, is now being addressed by the final 2020 SAFE Rule. In October 2012, NHTSA and EPA issued a joint rule requiring manufacturers of passenger cars and light duty trucks to increase their fuel efficiency and reduce the tailpipe emissions of GHG in MY 2017-2025 vehicles. In August 2018, NHTSA and EPA proposed to scale back the previously enacted fuel efficiency and GHG emissions standards when they released "The Safer Affordable Fuel Efficient (SAFE) Vehicles Proposed Rule for Model Years 2021-2026." The rule signed on March 30, 2020 is the final rule,

NHTSA and EPA's announcement notes that this 2020 SAFE Rule calls for a 1.5% annual improvement for fuel economy and carbon dioxide (CO₂) emissions standards from MY 2021 through MY 2026, which is less stringent than the 2012 Rule, which required a 5% annual improvement.

Tables 1 and 2 are taken from the Final Environmental Impact Statement.¹ Table 1 shows the estimated average fuel economy standards for the 2012 Rule and Table 2 shows the same information for the 2020 SAFE Rule. Please note that these fuel economy standards are not adjusted to represent real-world driving conditions.

Table 1: Estimated Average Fuel Economy Standards Passenger Cars and Light Trucks from the 2012 Rule in Miles per Gallon (mpg) by Model Year

	MY 2021	MY 2022	MY 2023	MY 2024	MY 2025	MY 2026
Passenger cars	45.4	47.6	49.8	52.1	54.6	54.6
Light trucks	33.2	34.8	36.5	38.2	40.0	40.0
Combined cars and trucks	38.8	40.6	42.5	44.5	46.6	46.6

Table 2: Estimated Average Fuel Economy Standards Passenger Cars and Light Trucks from the 2020 SAFE Rule in Miles per Gallon (mpg) by Model Year

	MY 2021	MY 2022	MY 2023	MY 2024	MY 2025	MY 2026
Passenger cars	44.2	44.9	45.6	46.3	47.0	47.7
Light trucks	31.6	32.1	32.6	33.1	33.6	34.1
Combined cars and trucks	37.3	37.9	38.5	39.1	39.8	40.4

¹ Table 2.2.1-1 and Table 2.2.2-3. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Year 2021 – 2026 Passenger Cars and Light Trucks Final Environmental Impact Statement, National Highway Traffic Safety Administration, Docket No. NHTSA-2017-0069, March 2020.

PREVIOUS BOARD AND COMMITTEE ACTION

Given the impact of changes to the GHG and fuel economy standards for passenger cars and light duty trucks promulgated in 2012 on the region's ability to maintain attainment of the 2008 ozone standards, attain the tougher 2015 ozone standards, and meet the GHG reduction targets, MWAQC, TPB, and CEEPC have previously submitted comments to the EPA and NHTSA on their proposal to roll back these standards. The comments include:

1. A September 27, 2017 letter regarding a reconsideration of the final determination of the mid-term evaluation of greenhouse gas emissions standards for model years 2022-2025 light-duty vehicles opposed any rollback of the emission standards and requested the standards in the October 15, 2012 final rule be maintained
2. An October 17, 2018 letter regarding the proposed SAFE Vehicles Rule and tailpipe CO₂ emissions standards for model years 2021-2026 light-duty vehicles supported the baseline/no action alternative that would have maintained the current fuel economy and tailpipe emission standards

NEXT STEPS

The 2020 SAFE Rule published establishes specific GHG and fuel economy standards for those vehicles, which are less stringent than standards (published in 2012) it seeks to replace.

Some external parties have questioned the technical analysis used to develop projections of the impacts of this model on vehicle miles traveled and resulting greenhouse gas and criteria pollutant emissions². The Environmental Defense Fund and Natural Resources Defense Council (NRDC), sued the EPA to gain insight into the modeling process. A federal appeals court ruled on April 1, 2020 that the Administration must release the full components of the modeling program called the Optimization Model for Reducing Emissions of Greenhouse Gases from Automobiles (OMEGA), which was used to devise the fuel economy standards associated with the SAFE Vehicles Rule.³ The external parties have indicated they plan to review the core components of the OMEGA.

Questions regarding the efficacy of the modeling makes it more difficult to determine how this would impact the metropolitan Washington region's ability to maintain the 2008 ozone standard, help attain the 2015 ozone standard, or meet regional greenhouse gas emission targets.

² <https://www.law.nyu.edu/centers/state-impact/issues/climate-action/clean-car-standards>; <https://thehill.com/opinion/energy-environment/490431-the-pandemic-hasnt-stopped-trumps-rollback-of-clean-car-standards>; <https://www.niskanencenter.org/the-epas-safe-vehicle-rule-is-a-triple-play-of-regulatory-ineptitude/>

³ <https://thehill.com/policy/energy-environment/490675-epa-loses-case-seeking-modeling-behind-obama-mileage-rollback>

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Given the unresolved questions about the technical analysis behind the 2020 SAFE Rule and the overall increase in GHG emissions, it is likely that states or other public interest organizations will legally challenge the rule. Given the impact of this ruling on its Clean Car Program and efforts to reduce GHG and potential impact on attaining ozone NAAQS, Maryland may join other states in a legal challenge. The District of Columbia and Virginia also may join, which would be similar to their actions with the first part of the proposed SAFE Vehicles Rule in 2018.