

MOBILE SOURCE REGULATORY PROGRAMS DEVELOPMENT OVERVIEW

MSTRS Meeting, November 30, 2022

Presented by the Office of Transportation and Air Quality

AGENDA

- Renewable Fuel Standards SET rulemaking
- States Gasoline Volatility Waiver rulemaking
- Light & Medium Duty Vehicle Multipollutant rulemaking
- Highway Heavy Duty
 - Engine criteria pollutant rulemaking
 - Phase 3 GHG rulemaking
- Aircraft engine PM standard rulemaking
- Proposed endangerment finding for lead emissions from aircraft
- Locomotive actions

RFS SET RULE PROPOSAL



- Under the Renewable Fuel Standard program, the statute only includes volume targets through 2022. EPA must establish them for 2023+ based on an analysis of economic and environmental factors that are specified in the statute.
- EPA is under a consent decree to sign the proposal by today and to sign the final rule by June 14, 2023
- The proposal will include standards for 2023 - 2025
- The standards would increase over these three years for all four categories (cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel)
- The proposal also includes a new, comprehensive regulatory program governing the generation of Renewable Identification Numbers (RINs) for electricity produced from biogas (eRINs)
 - Enabling renewable electricity to participate in the program for the first time
 - A large portion of the cellulosic volume would be from renewable electricity already in 2024 and 2025

STATES GASOLINE VOLATILITY WAIVER RULEMAKING

**CONTAINS
UP TO 10%
ETHANOL**

- EPA is proceeding with a rulemaking after 7 states have petitioned for removal of the 1-psi fuel volatility waiver for E10 gasoline per 211(h)(5) of the Clean Air Act
 - Illinois, Iowa, Minnesota, Nebraska, Ohio, South Dakota, Wisconsin
- This action would require refineries that provide fuel to these states to produce a lower volatility gasoline for blending
 - Will also require changes to the fuel distribution system
- The earliest the rule could take effect would be Summer 2023
 - We have also received several petitions that EPA delay the rulemaking implementation date by a year or more
- The proposed rule has not yet gone to OMB
- Once signed it will be followed by a public hearing and comment period

HIGHWAY VEHICLES: EXECUTIVE ORDER RECAP



- In the past year EPA completed actions responsive to the Biden Administration's January 2021 Executive Order and is actively working on actions responsive to the Administrations August 2021 Executive Order

January 2021 Executive Order

- Reconsider California's 2012 Advance Clean Car I waiver
- Reconsider Light-duty Vehicle GHG "SAFE" rule standards

✓ Both of these actions have been completed

August 2021 Executive Order

- Set Heavy-Duty Low NOx standards & Reconsider Phase 2 GHG standards for 2027
- Set longer term Light-duty & Medium-duty vehicle standards
- Set longer term Heavy-duty GHG "Phase 3" standards

➤ These 3 Actions covered on the next few slides

LIGHT & MEDIUM DUTY VEHICLES MULTIPOLLUTANT RULE



- EPA has begun a new rulemaking for Model Year 2027 and beyond, under Clean Air Act authority and responsive to Executive Order 14037
 - Light-duty + Medium-duty (Class 2B/3) vehicles
 - Multipollutant: GHGs + criteria pollutants
 - Standard covering at least through Model Year 2030
- Timing
 - Proposed rule: March 2023
 - Final rule: March 2024

Heavy Duty Engine and Vehicle Rulemakings



- **Heavy Duty Engine Criteria Pollutant Rulemaking for 2027 and later**
 - EPA issued a proposal in March 2022 to significantly strengthen highway heavy-duty engine emission standards beginning with Model Year 2027
 - Proposed more stringent NOx standards, longer regulatory useful life, new test procedures, and longer emissions warranty
 - Draft final rule currently under interagency review
 - EPA working to finalize the new criterial pollutant program by the end of this calendar year
- **Heavy-Duty Phase 3 GHG Standards Rulemaking**
 - EPA developing new GHG standard for Model Years 2027 – 2030+
 - In the March 2022 proposal EPA included revisions to Model Year 2027 GHG standards. Based on public comments, new data, and the passing of the Inflation Reduction Act, we have rolled that effort into the Phase 3 rulemaking.
 - **Timing**
 - Proposed rule: March 2023
 - Final rule: December 2023

AIRCRAFT ENGINE STANDARDS



- New PM standards for commercial aircraft:
 - FRM published in the *Federal Register* on Nov. 23
 - Domestically implements international PM standards agreed to by the International Civil Aviation Organization in 2017 and 2020;
 - Technology-following standards apply to new aircraft engines in 2023;
 - The Federal Aviation Administration will follow with a rulemaking to implement certification/compliance procedures.

- Future Environmental Work at the International Civil Aviation Organization (ICAO):
 - U.S. Gov't submitted a paper to ICAO Committee on Aviation Environmental Protection (CAEP) tri-annual meeting in February 2022
 - Suggested several areas for potential future ICAO work, including new round of GHG, NO_x, PM standards
 - CAEP agreed to begin work on new CO₂ standards for commercial aircraft
 - Will perform technical work on updating NO_x metric, which could lead to development of new NO_x and PM standards in the following CAEP cycle

EPA'S PROPOSED ENDANGERMENT FINDING REGARDING LEAD EMISSIONS FROM AIRCRAFT OPERATING ON LEADED FUEL

- ▶ EPA has been evaluating the air quality impact of lead emitted by aircraft operating on leaded fuel (largely piston-engine aircraft)
 - ▶ Lead emissions from these aircraft engines contribute 70% of the lead entering the air annually
 - ▶ Children are particularly vulnerable to lead, and there is no evidence of a threshold for adverse effects on their cognitive function.
- ▶ On October 17, 2022, we published in the Federal Register a proposed determination that lead emissions from aircraft engines operating on leaded fuel cause or contribute to air pollution which may reasonably be anticipated to endanger public health and welfare (87 FR 62753).
 - ▶ Submit comments by January 17, 2023.
- ▶ After evaluating comments, we plan to issue any final determination regarding our endangerment finding in 2023.



NEXT STEPS IF EPA FINALIZES THE ENDANGERMENT FINDING



- ▶ EPA would have a duty to propose regulatory standards for lead emissions from aircraft engines that operate on leaded fuel, after which, FAA would have a duty to propose regulations to enforce EPA's engine emissions standards.
- ▶ FAA would have a duty to prescribe standards for the composition or chemical or physical properties of an aircraft fuel or fuel additive to control or eliminate aircraft lead emissions.

LOCOMOTIVES



- On November 9, EPA responded to petitions for rulemaking from the California Air Resources Board, the San Joaquin Valley Air Pollution Control District, and the California Air Pollution Control Officers Association to address harmful emissions from locomotives.
- OTAQ has formed a team to develop options and recommendations for possible voluntary and/or regulatory action addressing new locomotives and new locomotive engines
 - Engaging with stakeholders; seeking ideas on scope, technologies, and timelines
- In addition, EPA intends to propose revisions to 40 CFR 1074 specific to locomotives
 - This part contains regulations describing which state actions are preempted by the CAA for nonroad sources
 - Scope of revisions would be to align our regs with the CAA to ensure 1074 doesn't inappropriately limit states' authorities under the CAA to address their air quality issues
 - Regulatory timeline TBD