

OTC Mobile Source Committee Overview

OTC/MANE-VU Stakeholders Meeting

September 21, 2022

Mobile Sources Committee

Chair, Kelly Crawford, D.C. Department of Energy and Environment



OZONE TRANSPORT COMMISSION

Presentation Overview

MSC 2022 Charge

- ✓ Medium- and heavy-duty truck NOx.
- ✓ Tampering and aftermarket catalysts.
- ✓ Cross-committee coordination.
- ✓ Provide technical and policy support where needed.

2022 Charge: Medium- and Heavy-Duty Trucks

- ✓ Provide information on the emissions standards, emissions benefits, and program elements in the EPA HD NOx final rule.
- ✓ Quantify emissions benefits of state adoption of the California Heavy-duty Omnibus regulation that may be used in coordination with the Modeling Committee.
- ✓ Disseminate MOVES ACT modeling results performed for the OTC members.
- ✓ Provide technical and policy analyses to the MHD ZEV initiative and engage with EPA on rulemakings that relate to MHD ZEV.

Medium and Heavy-Duty Trucks

Update on Activities:

- Completed MOVES3 modeling to evaluate OTC state adoption of the California Air Resources Board (CARB) heavy-duty regulations:
 - Advanced Clean Trucks (ACT) – requires 40% to 75% of heavy-duty vehicle sales be ZEVs by 2035, depending on vehicle class
 - Low NOx Omnibus – requires a 90% reduction in heavy-duty vehicle NOx emissions for model year 2027 vehicles and engines
- Incorporated state-specific information in the modeling:
 - Electricity-related emissions, VMT, school bus/urban bus ZEV requirements
- Analysis years are 2020 – 2050 and outputs are annual and cumulative tons of NOx reduced as well as VOC, PM, and CO₂.

Medium and Heavy-Duty Trucks (continued)

Update on Activities (Continued):

- ACT and Omnibus modeling done according to CARB method but using MOVES3.
 - CARB used their on-road vehicle Emission FAcT or (EMFAC) model in their analysis for ACT and Omnibus
- States are currently reviewing the modeling results with ICCT and Sonoma Technology.

Next Steps:

- Evaluate EPA's HD low NOx rule (when final) and compare with CARB Omnibus regulation.
- Distribute results to states.

Medium and Heavy-Duty Trucks (continued)

Next Steps (continued)

- Estimate further NO_x reductions that might result from EPA HD rulemakings – such as a Phase III GHG that may have a ZEV component.
- Consider BenMAP modeling for ACT/Omnibus adoption.
- Consider evaluating the emissions benefits of the CARB Advanced Clean Fleets regulation.

2022 Charge: Tampering

- Review findings from I/M best practices paper and discuss implementation of the recommendations.
- Evaluate approaches to identify tampered vehicles.
- Continue to track and refine the Tampering Matrix.
- Engage with EPA as it implements its Tampering Policy.
- Encourage EPA to incorporate tampering-related excess emissions into the MOVES model and establish SIP credits for state anti-tampering programs.

Tampering

Next Steps:

- CARB established a SIP credit method for HD I/M that they will present to the OTC MSC.
- MSC discussion of I/M paper recommendations:
 - Re-convene MSC tampering workgroup.
 - The white paper recommended OBD for I/M programs and specific approaches to identify tampered vehicles.

2022 Charge: Cross Committee Collaboration

- Identify and share with the Modeling Committee, SAS Committee, and MANE-VU TSC a list of top strategies to achieve ozone reduction, other air quality, and regional haze goals;
- Contribute to cross-committee discussions on VOC emissions in urban areas; and
- Hold a joint meeting to discuss source apportionment with the Modeling Committee.
- Status: work on these items is ongoing.

2022 Charge: As Resources Allow

Provide technical and policy support where needed on:

- Aircraft-related emissions.
- Light-duty electric vehicles.
- EPA's light-duty multi-pollutant standards.
- Cryptocurrency mining issues in coordination with the SAS Committee.
- CARB's Tier 5 nonroad NO_x standards.
- Other issues identified by the OTC Air Directors.

Summary and Discussion

Medium- and Heavy-duty Trucks

Evaluate final EPA low NOx regulation and compare to CARB Omnibus.
Consider modeling emissions benefits of Advanced Clean Fleets.

Anti-Tampering

Identify where state regulations can be strengthened to facilitate enforcement.
Discuss recommendations of HD I/M Best practices paper for anti-tampering.
Discuss HD I/M program design.

Cross Committee Collaboration

Identify top control strategies for LD, MD, HD, nonroad and discuss with the MC and SAS.
Potential BenMAP modeling of ACT/Omnibus benefits.
Urban VOC – mobile source component.

Technical Support on Policy Where Needed

Cryptocurrency mining issues.
Support on other sectors – aircraft, light-duty as needed.

