

MWAQC Technical Advisory Committee
Meeting Summary
March 10 10:00 AM - 11:30 AM

Present:

Roger Thunell, Maryland Department of the Environment
Doris McLeod, Virginia Department of Environmental Quality
Emily Bull, Maryland Department of the Environment
Erik Thunell, Maryland Department of the Environment
Hawi Kitila, Maryland Department of the Environment
Henry Frishman, District Department of Energy and Environment
Jenny Roelke, Maryland Department of the Environment
Jim Ponticello, Virginia Department of Transportation
Joseph Jakuta, District Department of Energy and Environment
Marcia Ways, Maryland Department of the Environment
Monae Scott, District Department of Energy and Environment
Melissa Atwood, City of Alexandria
Regina Moore, Virginia Department of Transportation
Sonya Lewis-Cheatham, Virginia Department of Environmental Quality
Thatch Gerike, District Department of Energy and Environment
Thomas Foster, Virginia Department of Environmental Quality
Virginia Burke, Maryland Department of Transportation
Ira Dofrfman, Innovative Rail Technologies

Staff:

Sunil Kumar, COG/DEP
Alissa Boggs, COG/DEP
Dusan Vuksan, COG/DTP
Erin Morrow, COG/DTP
Jeff King, COG/DEP
Jen Desimone, COG/DEP
Jinchul Park, COG/DTP
Leah Boggs, COG/DEP
Mark Moran, COG/DTP
Robert d'Abadie, COG/DTP
Wanda Owens, COG/DTP

1. Call to Order & Review of Meeting Summary

Roger Thunell called to order it at 10 AM. The February 10th meeting summary was approved without any changes.

2. 2015 Ozone NAAQS RR/MP Inventory

Sunil Kumar discussed the status of the inventory for the 2015 ozone NAAQS RR/MP.

Nonpoint & MAR Source Inventories

Projected 2032 and 2038 emissions are being developed using COG Cooperative Forecast Round 10.0. A list of proposed growth surrogates has been developed and will be discussed in this meeting. Comments are awaited. Coordination is going on with Maryland to finalize their nonpoint and quasi-point inventories.

Stage II emissions developed using MOVES5.0.0 were added to nonpoint source category. Roger asked Sunil if GSE emissions were deleted in MOVES5 NR model outputs for Maryland. Sunil said they are still there as if now but could be deleted if Maryland provides their own GSE emissions.

Point Source Inventories

2022: All ozone season day inventories are available.

2032/38: DC and VA inventories are available. MD is working to finalize their inventories.

Onroad Source Inventories

Robert d'Abadie briefed members on the development of the onroad emissions inventories for the Redesignation Request and Maintenance Plan for the 2015 ozone standard. He presented VOC and NO_x emissions for 2017, 2022, 2032, and 2038 and noted substantial projected declines in those emissions over time. He talked about the establishment of new Motor Vehicle Emissions Budgets (MVEBs) for transportation conformity. He noted that finalized MVEBs will be developed once all source inventories are complete and then submitted to EPA through state air agencies. MWAQC staff has completed its review of MOVES5 input/output/auxiliary input, and runspec files for the onroad emissions analysis performed by TPB.

Members discussed simplifying emission budgets by combining safety margins into a single figure instead of using two separate Tiers. Since MOVES5 is expected to be updated with new EPA rules for motor vehicles since the model was published and the socio-economic data will also change in the future, there is a need for safety margin. Members were concerned with relatively low emissions in 2038, which could make 20% safety margin very low and impractical. About 60% of total onroad No_x emission is emitted by heavy-duty diesel trucks and buses. These vehicles last very long and don't have much control over emissions from them so low safety margin does not make sense. State air agency staff were in agreement on the need for one single safety margin value but need to check with their higher management first before committing. They also preferred absolute values in tons rather than fixed percentages of emissions from milestone years. They also liked the idea of having different values for VOC and NO_x safety margins as emissions levels are quite different for the two. Members agreed to have a more detailed discussion on MVEBs once emission from all four sources are ready and states had the opportunity to discuss this at the higher management level.

3. Amtrak Switcher Project

Jeff King briefed members on the Amtrak Switcher project. He talked about a DOEE DERA and VW Funded Project focused on repowering Amtrak switcher locomotives through a partnership among DOEE, EPA (DERA support), MWCOG (administrator), Amtrak (owner), and BLET. Two older Amtrak switchers (Units 569 and 540) were replaced with newly repowered units (790 and 791) using donor frames, following an RFP process that selected NRE as the contractor, with work completed in Mt. Vernon, Illinois. The project was co-funded by DERA and the VW Settlement at \$1.735 million each and includes documentation of locomotive destruction, delivery of the new units, and outlined next steps such as shipment to Wilmington for PTC installation and a future public outreach event once the units return to Union Station.

4. Battery Electric Locomotives

Ira Dorfman (Innovative Rail Technologies, IRT) briefed members on the battery electric locomotives. IRT has already deployed six battery locomotives across North America and plans to add 12–16 more in 2026–2027. The company emphasized that it manufactures locomotives in Minooka, Illinois and is fully compliant with Buy America/Build America requirements by sourcing U.S.-made batteries, high-voltage components, and steel. IRT also stressed that its technology is mature and commercially proven, aligning with eligibility requirements under the U.S. EPA Clean Ports Program, through which it has been awarded a contract by the Virginia Port Authority for three 2,000-horsepower battery-electric locomotives.

Ira talked about IRT's operational and environmental performance using real-world deployments at facilities such as U.S. Steel, Nucor Steel, Cando Rail, and the U.S. Army's Fort Hood installation. To date, IRT locomotives have accumulated over 17,000 operating hours, more than 16,000 miles of service, and significant energy recovery through regenerative braking, while performing reliably in extreme conditions down to -40°C. Environmental benefits were a central theme, with examples showing elimination of all combustion-related emissions, large reductions in NO_x, substantial diesel fuel displacement, and monetized public-health benefits estimated using EPA tools. Ira identified deployment opportunities in the DMV region, including Amtrak, commuter rail systems, ports, and

marine applications, reinforcing IRT's position as a scalable zero-emissions solution for both freight and passenger rail.

5. State and Local Updates

Virginia didn't have any updates. Roger said that Maryland just finished its legislative session, so MDE is reviewing at all the bills that are being proposed. Joseph said that the District is reviewing a bill that could affect the permitting process.