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## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

July 30, 2019

Achille Alonzi, Division Administrator  
Federal Highway Administration, Texas Division  
300 E. 8th Street, Rm 826  
Austin, Texas 78701

Subject: Transportation conformity review and concurrence

Dear Mr. Alonzi:

Thank you for the opportunity to review the *Transportation Air Quality Conformity Report for the Houston-Brazoria-Galveston Region* and supporting documents for the 2045 Regional Transportation Plan (RTP) and amendments to the 2019-2022 Transportation Improvement Program (TIP) submitted by the Houston-Galveston Area Council (H-GAC). The purpose of this conformity analysis was to determine if the H-GAC's new 2045 RTP and amendments to the 2019-2022 TIP are consistent with area emissions requirements for the 2008 and 2015 eight-hour ozone National Ambient Air Quality Standards (NAAQS). An eight-county area in the Houston-Galveston-Brazoria (HGB) region is designated nonattainment for the 2008 eight-hour ozone NAAQS: Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties. A six-county area in the HGB region is designated nonattainment for the 2015 eight-hour ozone NAAQS: Brazoria, Chambers, Fort Bend, Galveston, Harris, and Montgomery Counties. This conformity demonstration addressed both ozone NAAQS.

To demonstrate conformity, projected nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOC) emissions from the area's RTP and TIP must be no greater than the applicable motor vehicle emissions budgets (MVEB) for NO<sub>x</sub> and VOC, as required under Title 40 Code of Federal Regulations (CFR) Part 93, Subpart A. Regional transportation emissions were projected for analysis years 2020, 2030, 2040, and 2045 and then compared to the NO<sub>x</sub> and VOC MVEBs established in the *Houston-Galveston-Brazoria Reasonable Further Progress State Implementation Plan Revision to meet the 2008 Eight-Hour Ozone National Ambient Air Quality Standard*. The MVEBs in the applicable state implementation plan (SIP) revision were found adequate for transportation conformity purposes by the United States Environmental Protection Agency (EPA) effective June 21, 2017. The NO<sub>x</sub> MVEB is 121.81 tons per day (tpd), which includes a safety margin of 23.66 tpd. The VOC MVEB is 68.04 tpd, which includes a safety margin of 11.67 tpd.

The H-GAC demonstrated transportation conformity for both the 2008 and the 2015 eight-hour ozone NAAQS. For both NAAQS, the H-GAC projected emissions for the larger eight-county 2008 eight-hour ozone NAAQS nonattainment area for which the applicable MVEBs were set. This demonstration method is allowed under 40 CFR §93.109(c)(2)(ii)(B) when there are adequate or approved MVEBs for a previous ozone NAAQS nonattainment area and that area is larger than and, geographically, fully encompasses the nonattainment area for a new ozone NAAQS.

Texas Commission on Environmental Quality (TCEQ) staff reviewed the transportation conformity determination documents submitted by the H-GAC. The H-GAC used Spatial Emissions Estimator (SEE) as a modeling framework around the MOVES model for regional conformity emissions inventory development. SEE was not used for SIP-related emissions inventory development. Updates to SEE, as documented in a May 31, 2017 report, *Documentation for the Spatial Emissions Estimator Model*, allow for methodological consistency between SEE-based emissions inventories and inventories developed for the SIP. However, the TCEQ has not yet seen the results of rigorous testing that compares emissions estimates generated using SEE with those generated using the utilities relied upon for SIP development. The TCEQ recommends that H-GAC complete such testing to ensure that results between the two approaches are reliably consistent.

Without rigorous testing to demonstrate reliable consistency between the SEE approach and the SIP approach, the TCEQ used the difference between analysis-year estimated emissions and the MVEBs to determine whether to ask the H-GAC to use the SIP approach for this conformity analysis. Estimated emissions for all conformity analysis years were at least 20% lower than the NO<sub>x</sub> and VOC MVEBs, so the TCEQ is satisfied that the difference in approaches does not jeopardize this demonstration.

All issues with the conformity analysis were addressed and resolved in a series of meetings, consultative calls, and emails with the H-GAC, the Federal Highway Administration, the EPA, the Texas Department of Transportation, and the TCEQ. The TCEQ is satisfied that all requirements have been met and transportation conformity has been demonstrated. If you have any questions about our review, please contact Ms. Jamie Zech of my staff at 512-239-3935 or [jamie.zech@tceq.texas.gov](mailto:jamie.zech@tceq.texas.gov).

Sincerely,



Donna F. Huff, Director  
Air Quality Division  
Texas Commission on Environmental Quality

DFH/jz

Cc: Jose Campos, Federal Highway Administration  
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