

EXECUTIVE SUMMARY

Milestones and Background

On November 4, 2022, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) certified that the Houston-Brazoria-Galveston (HGB) region's amended *2045 Regional Transportation Plan (RTP)* and the amended *2021-2024 Transportation Improvement Program (TIP)* met all the requirements for a joint conformity determination to the Air Quality State Implementation Plan (SIP) for the HGB ozone nonattainment area.

This new conformity determination is being prepared to support the 2045 RTP Update and the amendments to the 2023-2026 TIP. Although the HGB region has been reclassified on November 7, 2022 as “moderate” and “severe” for the 2015¹ and 2008² 8-hr ozone standards, with attainment years 2023 and 2026 respectively, the state has not yet submitted new emission budgets to the Environmental Protection Agency (EPA) for consideration. Consequently, this conformity will demonstrate compliance to the latest EPA-approved emission budgets based on the revision to the air quality SIP for the 2008 8-hr Ozone Standard due to the reclassification from moderate to serious with attainment year 2020. The Reasonable Further Progress (RFP) SIP budget was found adequate by the EPA with an effective approval date of June 9, 2021.

In accordance with [23 CFR Part 450](#) all projects are constrained by the financial resources estimated to be reasonably available within the RTP timeframe. A complete listing of the projects in the RTP and TIP that affect this conformity analysis will be included in Appendix 3 of the conformity report.

Conformity Requirements

The Clean Air Act Amendments of 1990 (CAAA) require transportation plans, programs, and projects in nonattainment and maintenance areas, funded or approved by the FHWA or the FTA, to conform to the motor vehicle emission budgets (MVEBs) established in the SIP. This ensures that transportation plans, programs, and projects do not produce new air quality violations, worsen existing violations, or delay timely attainment to National Ambient Air Quality Standards (NAAQS). Conformity analysis requirements include:

- Use the latest planning assumptions
- Analysis based on the latest emission estimation model available

¹. <https://www.govinfo.gov/content/pkg/FR-2022-10-07/pdf/2022-20460.pdf>

². <https://www.govinfo.gov/content/pkg/FR-2022-10-07/pdf/2022-20458.pdf>

- Interagency consultation, and a public involvement process, must be conducted during the analysis
- Timely implementation of Transportation Control Measures (TCMs)
- An RTP and TIP that are consistent with the MVEBs established in the applicable SIP (if there is an adequate or approved SIP budget), and
- Inclusion of all regionally significant projects expected in the nonattainment and maintenance area in the RTP and TIP

Regional Inventory

This conformity analysis was developed using air quality regional inventories of the HGB nonattainment area. It accounts for average ozone season (summer) weekday emissions resulting from the nonattainment area's transportation plans, including all regionally significant projects and the effects of emission control programs, such as the inspection and maintenance programs.

Motor Vehicle Emission Budgets

The 2020 budgets established in the HGB RFP SIP for the serious classification for the 2008 8-hr ozone standard are as follows:

HGB RFP 2020 MVEBs Serious classification for 2008 8-hr ozone standard

| RFP Demonstration Budgets (t/d) | | |
|---------------------------------|-----------------------|------------|
| <i>Year</i> | <i>NO_x</i> | <i>VOC</i> |
| 2020 | 87.69 | 57.70 |

Source: HGB serious RFP SIP, TCEQ

Emissions Tests

As specified by the Code of Federal Regulations ([40 CFR 93.109\[c\]](#), as amended [by 62 FR 43807, Aug. 18, 1997](#)) all ozone nonattainment areas designated moderate and above must pass a MVEB test if an approved SIP budget exists. At the time of this conformity determination, the HGB region is classified as “severe” for the 2008 8-hr ozone standard and “moderate” for the 2015 8-hr ozone standard, with an attainment year of 2023 and 2026 respectively. Since the state has not yet submitted emission budgets for these classifications, this conformity will demonstrate compliance to the

latest EPA-approved emission budgets based on the revision to the air quality SIP for the 2008 8-hr ozone standard due to the reclassification from moderate to serious with attainment year 2020. The RFP SIP budget was found adequate by the EPA with an effective approval date of June 9, 2021.

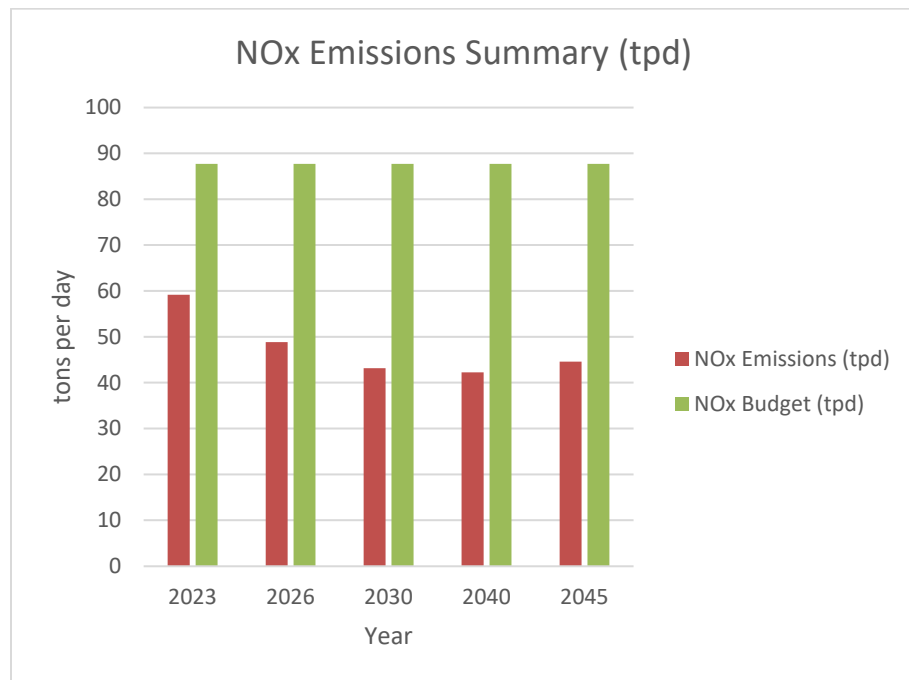
In this case, the budget test must be satisfied using the MVEBs established in the RFP SIP mentioned above. Specifically, this test is satisfied when ozone precursor (VOC and NOx) average summer weekday emissions for each analysis year are less than or equal to the MVEBs established in the SIP. For the test, the regional emission analysis should be performed for any years selected according to the conformity rule. The table and graphs below show the results of this conformity analysis.

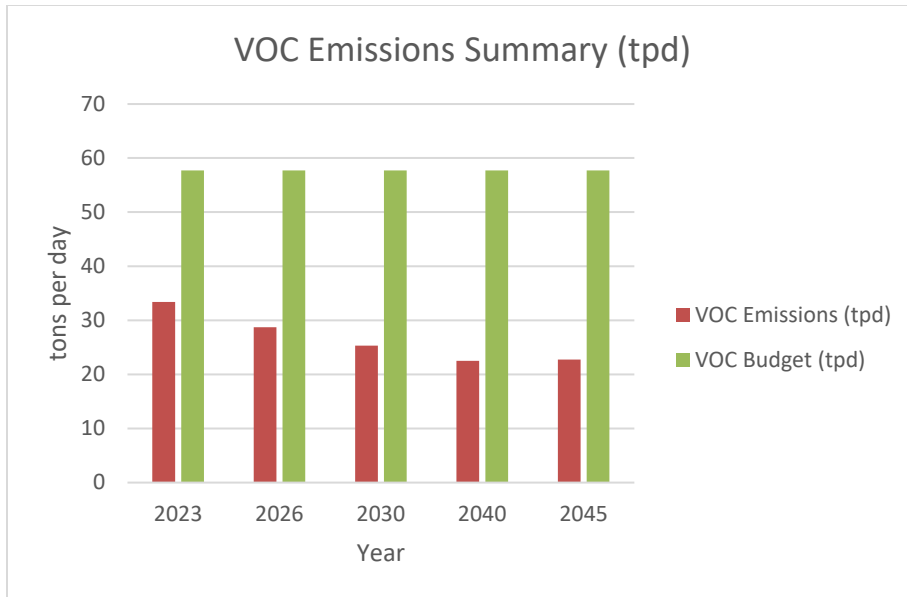
Conformity Analysis Results versus HGB RFP MVEBs for serious classification

| Year | NOx Emissions (tpd)* | NOx Budget (tpd) | VOC Emissions (tpd) | VOC Budget (tpd) | VMT |
|------|----------------------|------------------|---------------------|------------------|-------------|
| 2023 | 59.17 | 87.69 | 33.39 | 57.70 | 207,127,974 |
| 2026 | 48.85 | 87.69 | 28.73 | 57.70 | 218,020,232 |
| 2030 | 43.14 | 87.69 | 25.32 | 57.70 | 237,879,429 |
| 2040 | 42.24 | 87.69 | 22.51 | 57.70 | 279,828,518 |
| 2045 | 44.57 | 87.69 | 22.75 | 57.70 | 298,902,646 |

Note: emissions represent the average summer weekday

*tpd is tons per day





Note: emissions represent the average summer weekday

The results of this conformity determination demonstrate that the *2045 RTP Update and amendments to the 2023-2026 TIP* for the HGB TMA meet the requirements of the air quality SIPs for the HGB ozone nonattainment area and are in accordance with the Clean Air Act (42 U.S.C. 7504, 7506 (c) and (d)), as amended on November 15, 1990, and the final conformity rule (40 CFR Parts 51 and 93).

Background Information on Conformity

More information on what conformity is and the regulations that apply to it can be found at: https://www.fhwa.dot.gov/environment/air_quality/conformity/index.cfm

This conformity determination involved a pre-analysis review discussion with the review agencies (Chapter 8) and a public comment period (Chapter 9).