

## **CHAPTER 5: MOTOR VEHICLE EMISSION BUDGETS**

### **5.1 INTRODUCTION**

The HGB RFP SIP establishes motor vehicle emission budgets (MVEBs), setting the allowable on-road mobile emissions an area can produce and continue to demonstrate RFP. The HGB RFP MVEBs are calculated by subtracting the on-road mobile control strategy emission reductions that are necessary to demonstrate RFP from the uncontrolled, projected on-road mobile source emissions for RFP milestone years. Local transportation planning organizations use the MVEBs to demonstrate that projected emissions from transportation plans, programs, and projects are equal to or less than the budget, as required by the federal transportation conformity rule.

### **5.2 OVERVIEW OF METHODOLOGIES AND ASSUMPTIONS**

The TCEQ developed updated on-road mobile source EIs and control strategy reduction estimates that use the latest planning assumptions and the newest version of EPA's emission factor model. Updated inventory development included development of a 2002 base year inventory, adjusted base year inventories for 2002 and 2008, 2008 milestone year inventories, and control strategy reduction estimates for 2008. The TCEQ worked with the Houston-Galveston Area Council (HGAC) to develop this inventory. Appendix 4: *Development of HGB RFP On-Road Mobile Source Emissions Inventories* is a copy of the HGAC contractor report and provides detailed documentation of the on-road mobile inventory development.

### **5.3 MOTOR VEHICLE EMISSION BUDGETS FOR RFP MILESTONE YEAR 2008**

Based on comments received by the EPA, this MVEB remains consistent with the 2007 NO<sub>x</sub> MVEB budget from the HGB Mid-Course Review SIP as adopted on December 1, 2004, by the Commission. The HGB Mid-Course Review SIP NO<sub>x</sub> MVEB was deemed adequate by the EPA on March 23, 2005, and approved by the EPA in August 2006. The RFP VOC MVEB reflects the 2008 on-road mobile EIs, the on-road mobile reduction strategies used to demonstrate RFP, and a ten percent transportation conformity safety margin. The NO<sub>x</sub> safety margin is the difference between the 2008 on-road emissions projection with post-1990 FCAA controls and the 2007 NO<sub>x</sub> MVEB budget from the HGB Mid-Course Review SIP. A transportation conformity safety margin is allowed when there is an excess in emission reductions required to demonstrate RFP for the milestone year. The amount of the safety margin is less than the total in excess emission reductions and, therefore, even if the safety margin is used for a transportation conformity determination, the HGB area will still meet the eight-hour ozone RFP requirements for 2008. See Table 5-1: *2008 Eight-Hour Ozone RFP Motor Vehicle Emission Budgets for the HGB Area* and Appendix 1, Sheet 15.

**Table 5-1: 2008 Eight-Hour Ozone RFP Motor Vehicle Emission Budgets for the HGB Eight-County Ozone Nonattainment Area**

Description	NO <sub>x</sub> tons per day	VOC tons per day
2008 On-Road Emissions Projection Without Post-1990 FCAAA Controls	346.83	180.99
2008 On-Road Mobile Reasonable Further Progress Controls:		
Tier 1 Federal Motor Vehicle Control Program (Tier 1 FMVCP)	63.30	41.77
I/M in Harris County	12.08	10.15
Federal Reformulated Gasoline (Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller)	44.40	31.64
National Low Emission Vehicle Program (NLEV)	9.65	5.25
Tier 2 Federal Motor Vehicle Control Program (Tier 2 FMVCP)	28.67	10.33
2007 Heavy Duty Diesel FMVCP	8.24	0.13
Expanded I/M –Inspection/Maintenance (I/M) (Brazoria, Fort Bend, Galveston, and Montgomery)	3.58	2.80
TxLED	5.26	0.04
2008 On-Road Emissions Projection With Post-1990 FCAAA Controls (Uncontrolled inventory minus control reductions)	171.65	78.88
Add Transportation Conformity Safety Margin	14.48	7.89
<b>2008 Eight-Hour Ozone RFP VOC Motor Vehicle Emission Budgets</b>	<b>NA</b>	<b>86.77</b>
<b>2008 Eight-Hour Ozone RFP NO<sub>x</sub> Motor Vehicle Emissions Budget as Contained in the December 1, 2004, HGB Mid-Course Review SIP</b>	<b>186.13</b>	<b>NA</b>

The 2008 RFP control strategy produces more than the required emission reductions. Some of the excess in emission reductions is used to provide a safety margin for 2008. This safety margin is less than the total emission reductions needed for the RFP demonstration. Therefore, even if this safety margin is used, the area will still demonstrate RFP 2008.