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# SIP Revisions: HGB One-Hour Ozone Post-1999 ROP and Attainment Demonstration, September 25, 2002 and December 13, 2002

**Revisions to the Houston-Galveston-Brazoria (HGB) Post-1999 Rate-of-Progress (ROP) and Attainment Demonstration Follow-Up State Implementation Plan (SIP), including speed limit reduction strategy changes, for the one-hour ozone National Ambient Air Quality Standard (NAAQS).**

## Summary of the SIP Revision

**Adoption Date:** 12/13/2002 and 09/25/2002

**Proposal Date:** 06/05/2002

**EPA Approval Date:** 09/06/2006 (71 FR 52656)

**Background:** On September 25, 2002, the commission adopted a change to the HGB speed limit reduction strategy and a clarification to the Voluntary Mobile Emissions Reduction Program (VMEP). On December 13, 2002, the commission adopted SIP revisions to address issues specific to the HGB nonattainment area, as well as some cleanup to 30 Texas Administrative Code Chapter 115 and Chapter 117 rules for additional counties and nonattainment areas.

## Key Changes:

- **Highly Reactive Volatile Organic Compounds (HRVOC):** These revisions included new rules to address the impact of HRVOC from industrial sources on rapid ozone formation in the HGB area. Specifically, the new rules addressed the following sources: cooling towers, flares, fugitives, and process vents.
- **Texas Emission Reduction Program (TERP):** These revisions formally incorporated the protocol for the TERP into the HGB attainment demonstration via the United States Environmental Protection Agency's Economic Incentive Program.
- **Energy Efficiency:** These revisions incorporated the quantification methodology that the state will use to take credit for nitrogen oxides (NO<sub>x</sub>) reductions from energy efficiency measures in future SIP revisions.
- **Point Source NO<sub>x</sub> Rules:** These revisions included changes to the industrial, commercial, and institutional source control requirements that were already included within the federally approved SIP for the HGB ozone nonattainment area. These amendments changed the maximum amount of NO<sub>x</sub> emission reductions required from certain point sources. The amendments also reorganized and modified existing portions of the Chapter 117 rules and added ammonia emission specifications for electric generating facilities located in 31 attainment counties of east and central Texas.
- **Speed Limit Reduction:** This revision suspended the 55 miles per hour (mph) speed limit until May 1, 2005. Where speeds were 65 mph or higher before May 1, 2002, the revision sets speed limits to 5 mph below the previously posted limits. This revision also clarified the state's commitment to remedy any potential shortfall in the VMEP portion of the SIP.



## SIP Narrative and Appendices

Files linked from this page are in Portable Document Format (PDF).

### HGB Post-1999 ROP and Attainment Demonstration Follow-Up SIP (Project No. 2002-046-SIP-AI)

- **HGB Post-1999 ROP and Attainment Demonstration Follow-Up SIP Narrative**
  - **Quality Assurance Plan Outline**
  - **Response to Comments**
- Appendices
  - **Appendix A: Description of the Methodology for Determining Credit for Energy Efficiency**
  - **Appendix P: Sampling Procedures**
- Technical Support Document
  - **Executive Summary**
  - **Part 1**
  - **Part 2**
  - **Part 3**
  - **Part 4**
- Appendices to Technical Support Document
  - **Appendix A: Conceptual Model for Ozone Formation in the Houston-Galveston Area**
  - **Appendix B: Updated Houston-Galveston Mid-Course Review CAMx Modeling Domain**
  - **Appendix C: CAMx Modeling Matrix of the August 25-September 1, 2000 Episode**
  - **Appendix D: Bibliography of Technical Support Information Reviewed and Considered**
- Attachments
  - **Attachment 1: Episode Selection**
  - **Attachment 2: Meteorological Modeling for the August 25, 2000-September 1, 2000 Episode**
  - **Attachment 3: Emissions Inventory Development and Modeling for the August 25 - September 1, 2000 Episode**
  - **Attachment 3.1: TexAQS 2000 On-Road Mobile Source Emissions Estimation (MOBILE5) (Contract Report by TTI, August 31, 2001)**
  - **Attachment 3.2: 2000 On-Road Mobile Source Episode Specific Emissions Inventories for the Houston-Galveston Ozone Nonattainment Area (Contract Report by TTI, March 2002)**
  - **Attachment 3.3: 2007 On-Road Mobile Source Episode Specific Emissions Inventories for the Houston-Galveston Ozone Nonattainment Area (Contract Report by TTI, March 2002)**



- **Attachment 3.4: Special Inventory Development**
- **Attachment 3.5: Development of Source Speciation Profiles from the 2000 TCEQ Point Source Database** (Contract Report by PES, August 30, 2002)
- **Attachment 3.6: Biogenic VOC Emission Estimates for the TexAQS 2000 Emission Inventory: Estimating Emissions During Periods of Drought and Prolonged High Temperatures and Developing GloBEIS3** (Contract Report by NCAR and Environ, April 11, 2002)
- **Attachment 3.7: 2000 On-Road Mobile Source Episode Specific Emissions Inventories for the Beaumont-Port Arthur Ozone Nonattainment Area** (Contract Report by TTI, August 2002)
- **Attachment 3.8: 2007 On-Road Mobile Source Episode Specific Emissions Inventories for the Beaumont-Port Arthur Ozone Nonattainment Area** (Contract Report by TTI, August 2002)
- **Attachment 3.9: Mexico Emissions Inventory** (excerpt from Big Bend Regional Aerosol and Visibility Observational (BRAVO) Study Emissions Inventory, November 16, 2001)
- **Attachment 4: CAMx Model Performance Evaluation for the August 25 - September 1, 2000 Episode**
- **Attachment 5: Analysis of TexAQS 2000 Airborne Canisters**
- **Attachment 6: Analysis of Auto GC Data from 1996-2001 to Determine VOCs with Largest Ozone Formation Potential**
- **Attachment 7: Preliminary Emission Adjustment Factors Using Automated Gas Chromatography Data**
- **Attachment 8: Allocation of Emissions of HRVOCs to Source Types**

**HGB Post-1999 ROP and Attainment Demonstration Follow-Up SIP (Speed Limit Reduction/Voluntary Mobile Emission Reduction Program) Project No. 2002-046a-SIP-AI**

- **HGB Post-1999 ROP and Attainment Demonstration Follow-Up SIP Narrative for Speed Limit and VMEP**
- **Response to Comments (Speed Limit and VMEP)**

**Associated Rules**

- **Chapter 115 Leak Detection and Repair Program Fact Sheet**
- **Chapter 115 Vent Gas Flares/Cooling Towers Fact Sheet**
- **Chapter 117 NOX Rules Fact Sheet**

**Highly Reactive VOC**

- Project No. 2002-046b-115-AI

**Associated HRVOC Tables 6.2-1, 6.2-2**

**Utility Electric Generation in Ozone Nonattainment Areas**

- Project No. 2002-038-117-AI



### **Utility Electric Generation in East and Central Texas**

- Project No. 2002-038-117-AI

### **Industrial, Commercial, and Institutional Combustion Sources**

- Project No. 2002-038-117-AI

### **Adipic Acid Manufacturing**

- Project No. 2002-038-117-AI

### **Nitric Acid Manufacturing in Ozone Nonattainment Areas**

- Project No. 2002-038-117-AI

### **Water Heaters, Small Boilers, and Process Heaters**

- Project No. 2002-038-117-AI

### **Boilers, Process Heaters, Stationary Engines, and Gas Turbines at Minor Sources**

- Project No. 2002-038-117-AI

### **Mass Emissions Cap and Trade (MECT) Program**

- Project No. 2002-044-101-AI