

**EXTRACTION OF ALLOWABLE VOC RELEASE LEVELS FROM
TCEQ PERMITS
FINAL REPORT**

Prepared for:
Houston Advanced Research Center
Texas Environmental Research Consortium
4800 Research Forest Drive
The Woodlands, TX 77381

Prepared by:
URS Corporation
9801 Westheimer, Suite 500
Houston, TX 77042

April 15, 2004

1.0 Introduction

Measurements made in ambient air during the Texas 2000 Air Quality Study and routinely at surface monitoring sites in the Houston – Galveston Area (HGA) in recent years suggest that emissions of Volatile Organic Compounds (VOC), particularly a few compounds labeled Highly Reactive VOC (HRVOC), are highly variable in time and considerably greater than reported using conventional regulatory guidance. Emission events associated with facility upset, startup, shutdown, and maintenance activities may partially explain the variability in the ambient data. Another component of the observed variability may be due to short-term spikes in emissions, above the normal baselines or average daily emissions, which are within the limits allowed by applicable air quality permits. Both emission events and short-term spikes in permitted emissions, if significant enough, may cause or contribute to exceedances of the ozone National Ambient Air Quality Standards.

To help estimate the potential magnitude of allowable emissions above the reported ozone season daily averages for the HGA, the Houston Advanced Research Center (HARC), with funding from the Texas Environmental Research Consortium (TERC), contracted URS Corporation (URS) to compile relevant information from TCEQ air quality permit files. In addition to helping to characterize this potentially important component of the ozone precursor emissions, the data compiled in this project, particularly from recent permits, will be helpful toward projecting growth in emissions beyond the August 2000 base case emissions inventory used in the HGA photochemical modeling. Specifically, the goals of this project were to:

- Develop a database and statistical summary of allowable emissions from VOC sources located in the HGA; and
- Help project growth in VOC emissions beyond the August 2000 base case emissions inventory used in the HGA photochemical modeling, based on recently permitted new emissions.

This report discusses the methods used to acquire the data, a brief statistical summary of the data and discussion of the data analyses, and a discussion of any limitations or other considerations to be mindful of when drawing conclusions from the data.