

2006 Hourly Inventory



Preliminary Data





2006 Hourly Inventory

Presentation Overview

- Preliminary reporting numbers
- Preliminary emissions data analysis
 - Reported hourly averages versus:
 - ozone-season reported averages
 - hourly maxima

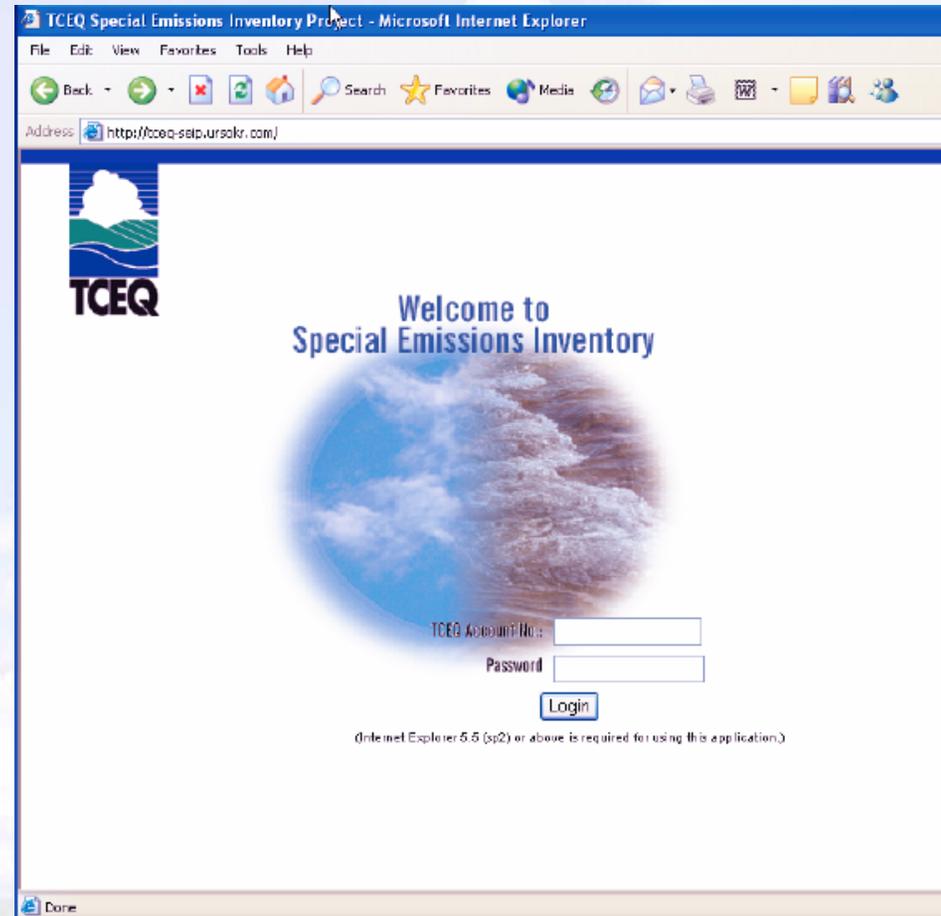




2006 Hourly Inventory

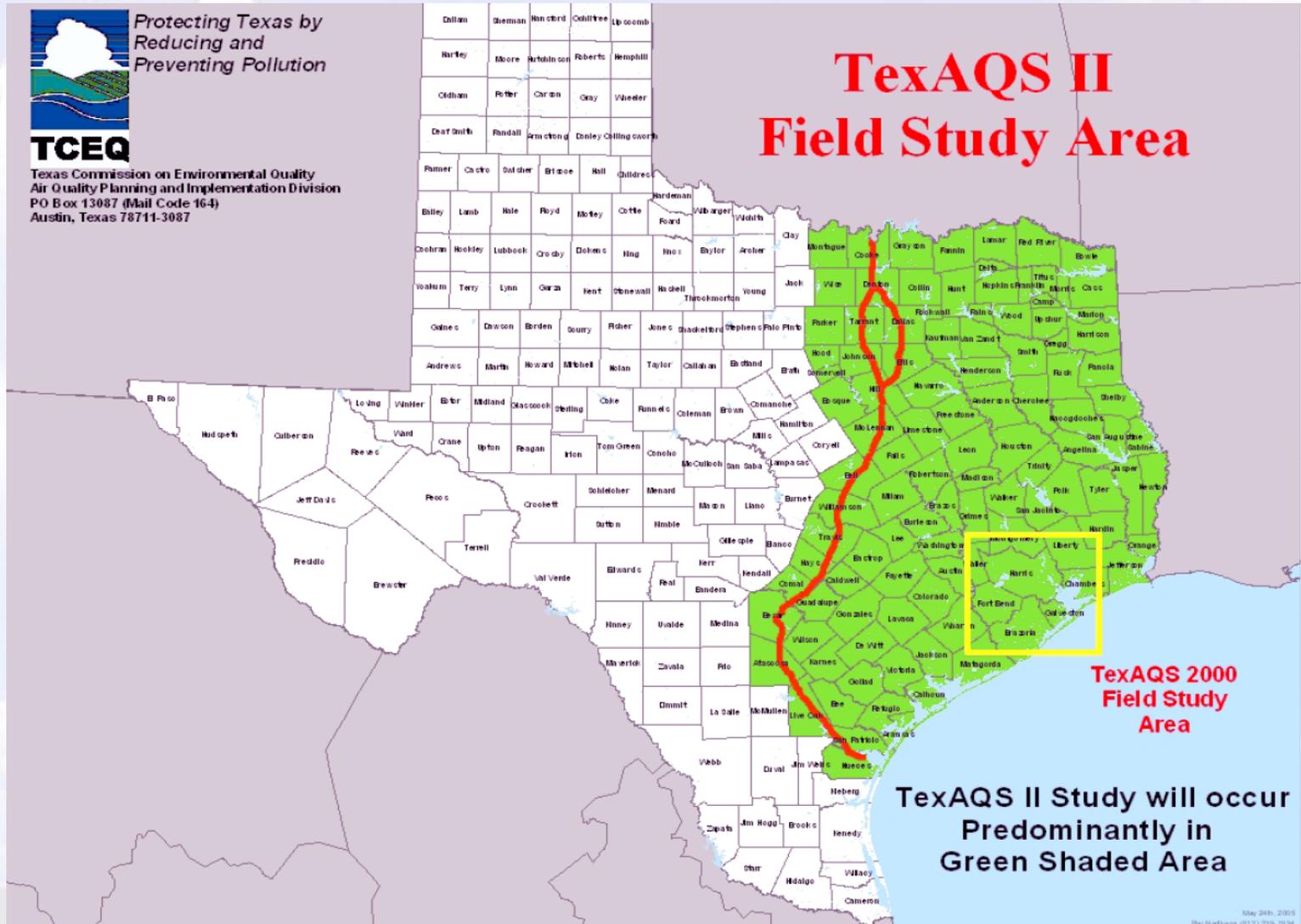
Summary

- Objective: To gather hourly emissions data from 1195 industrial emissions sources at 145 sites using Web-based reporting application
- Sites located in eastern half of state





2006 Hourly Inventory Area





2006 Hourly Inventory

Summary

- Gathered data from August 15 to September 15, 2006
- Pollutants inventoried:
 - Nitrogen oxides (NO_x)
 - Sulfur dioxide (SO_2)
 - Volatile organic compounds (VOCs)
- Data submissions due October 16, 2006





2006 Hourly Inventory

Preliminary Reporting Results

- Results:



- Approximately 97 percent of sites (140 sites) attempted to report by deadline
- Of those attempting to report, approximately 97 percent successfully uploaded data to Web application
- Received over three million hourly records
- Collected hourly data on all days during August and September where ozone concentrations exceeded 100 parts per billion



2006 Hourly Inventory

Draft Data Analysis

- All results are **preliminary**
 - Subject to change based upon quality assurance results or revisions
- Assessed data variability
 - Averaged hourly emissions rates by source
 - Compared averaged hourly rates to:
 - Most recent ozone season emissions rate in annual emissions inventory (EI)
 - Reported hourly maxima





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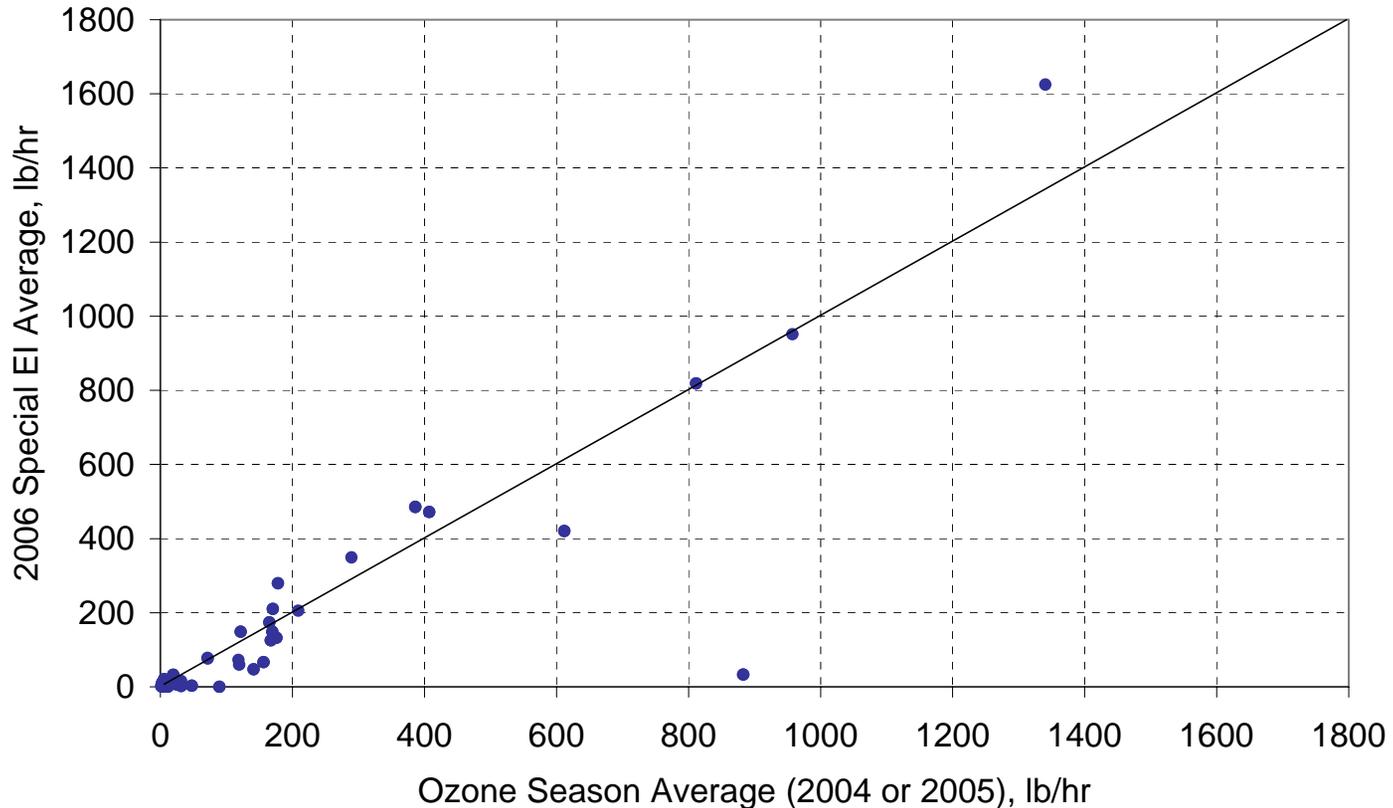
Draft Data Analysis, continued

- Preliminary results:
 - Better agreement between averages for NO_x and SO_2 emissions sources but variability still present
 - VOC sources showed marked variability
 - When comparing hourly averages to hourly maxima, peak to mean ratios were generally smallest for SO_2 and greatest for VOC



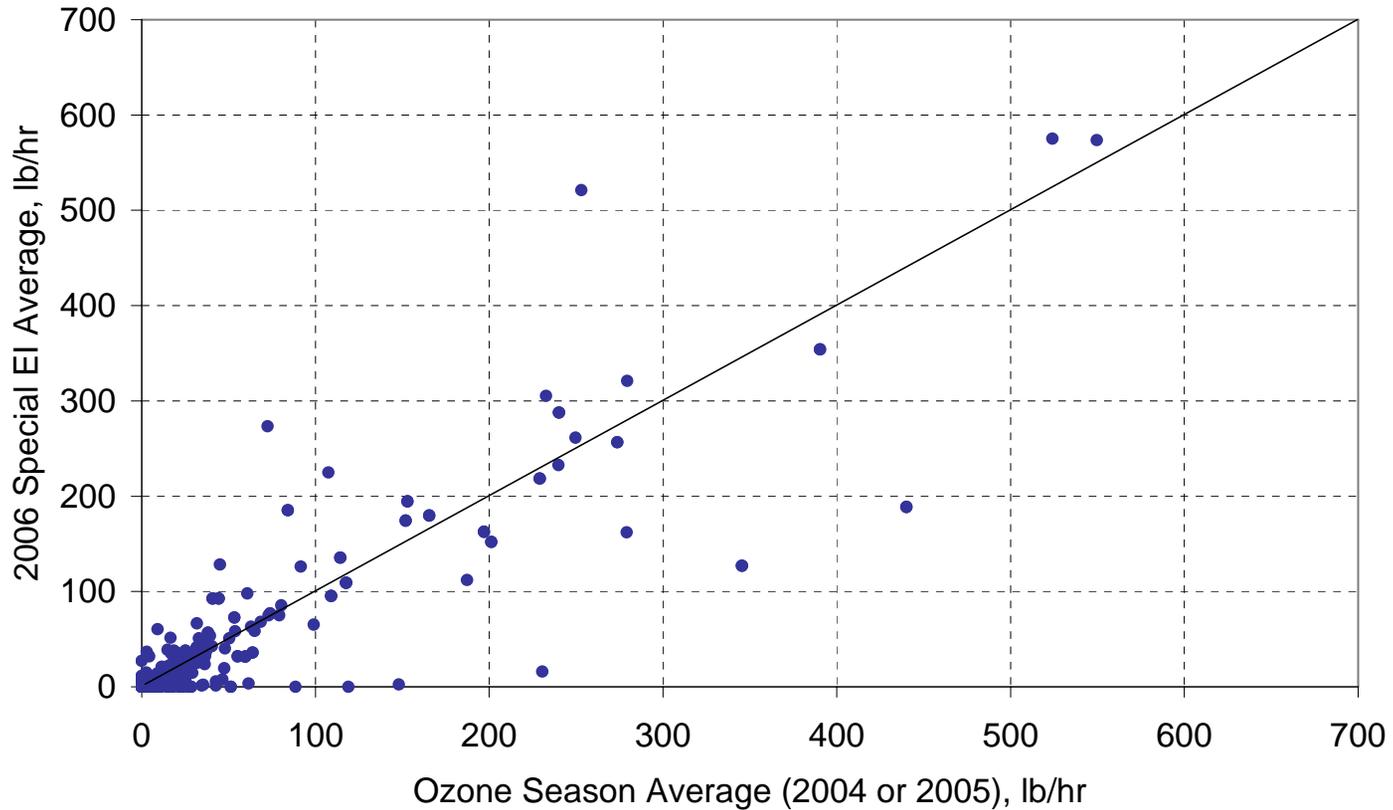
Comparison of 2006 Special EI with Reported Emissions from Most Recent Annual EI

Sulfur Dioxide Emissions

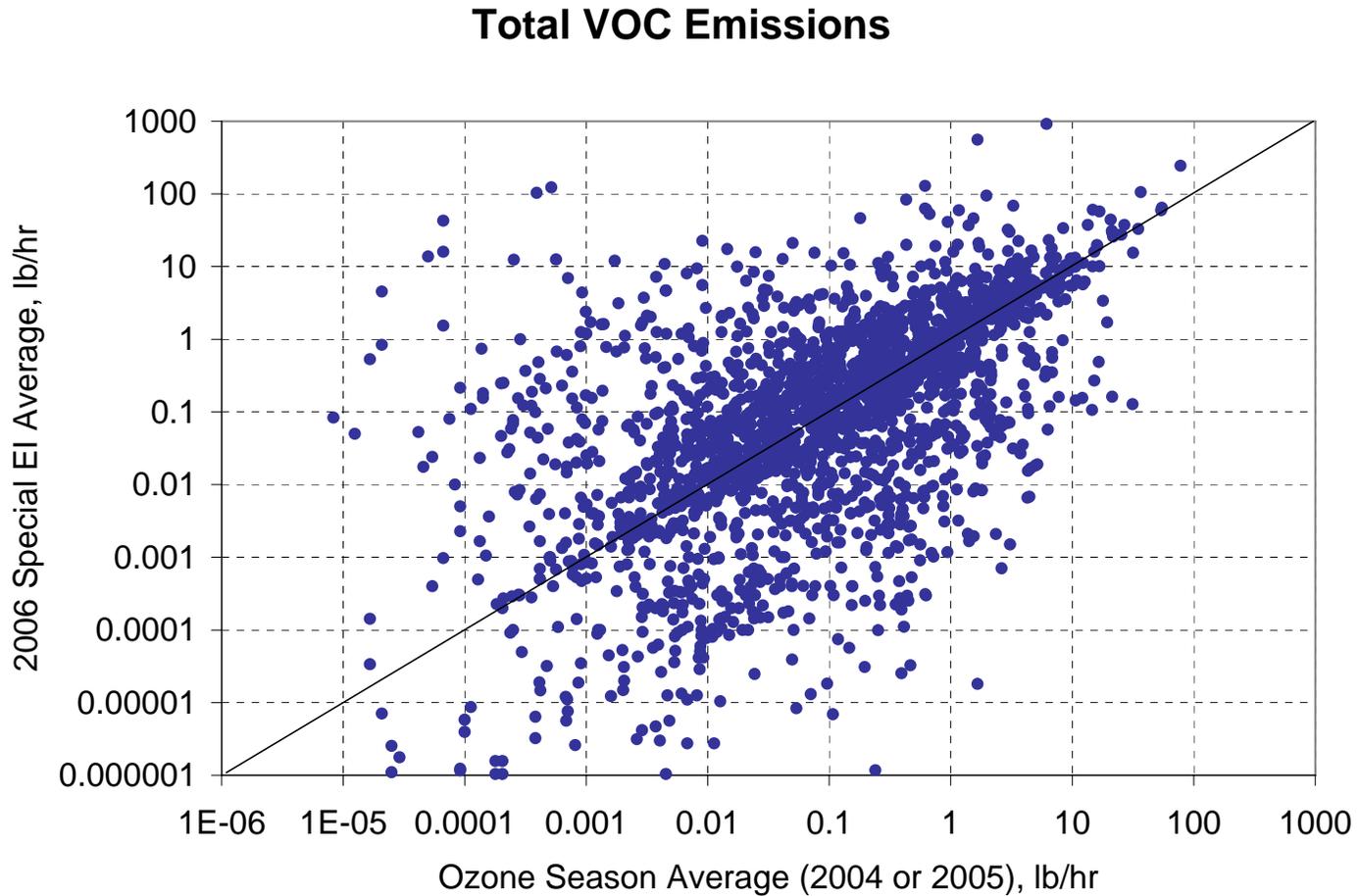


Comparison of 2006 Special EI with Reported Emissions from Most Recent Annual EI

Nitrogen Oxides Emissions

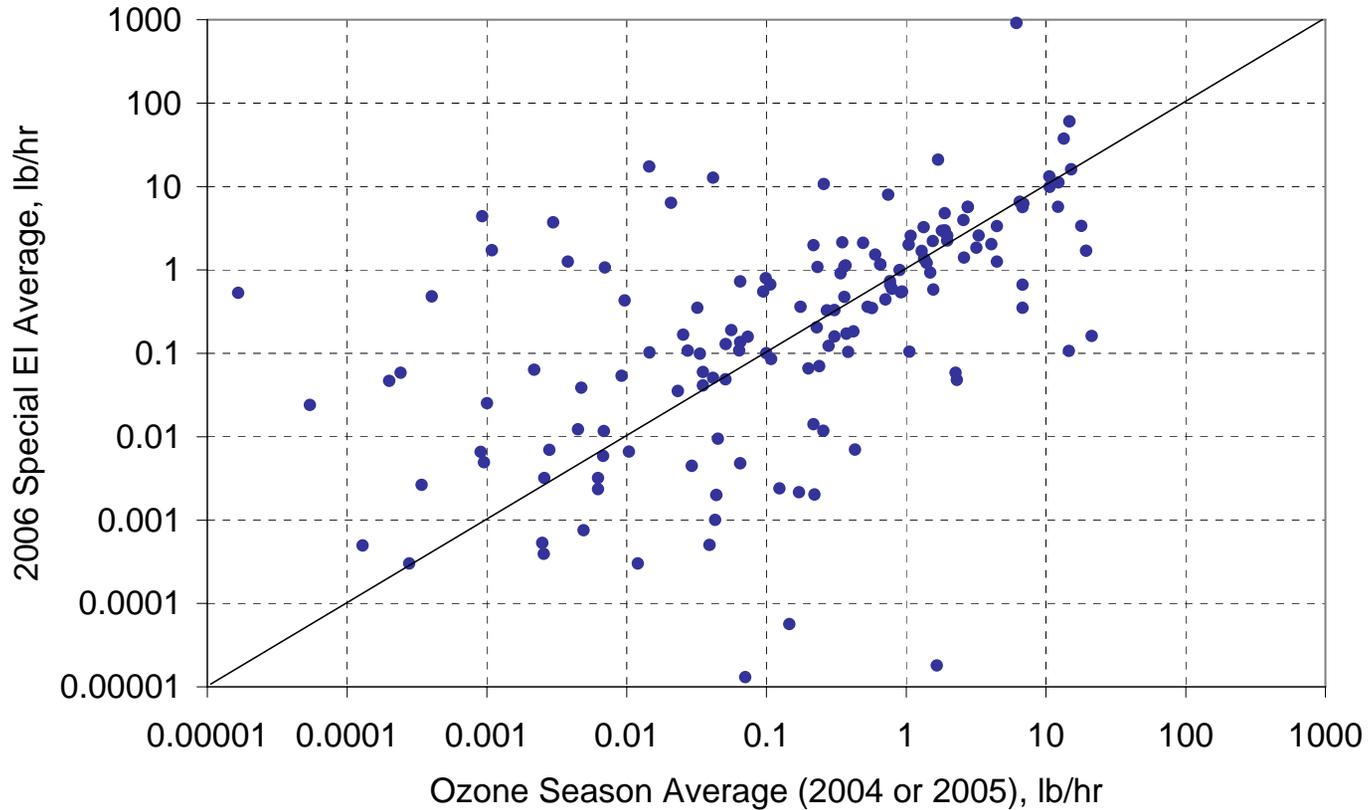


Comparison of 2006 Special EI with Reported Emissions from Most Recent Annual EI

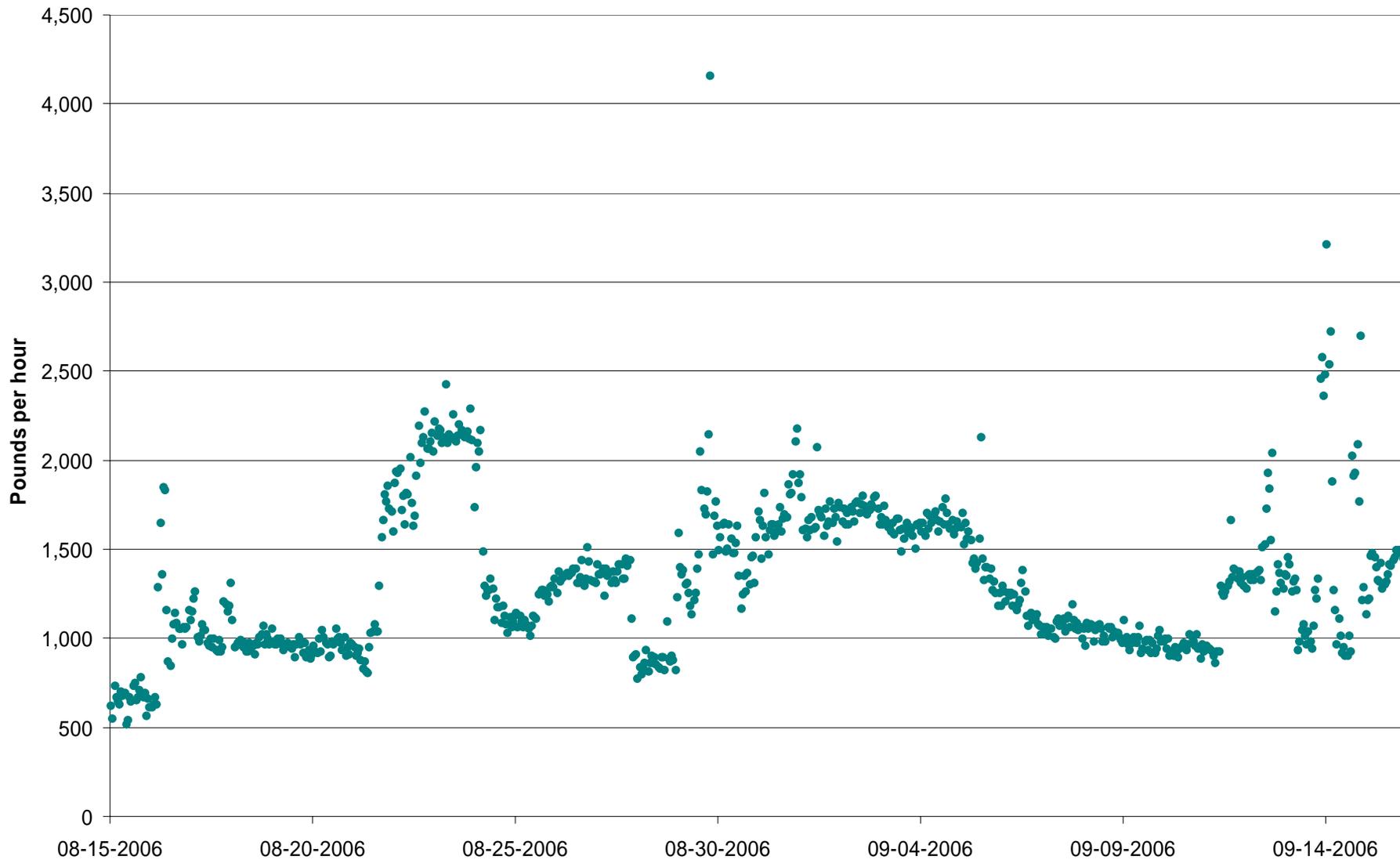


Comparison of 2006 Special EI with Reported Emissions from Most Recent Annual EI

Ethylene Emissions

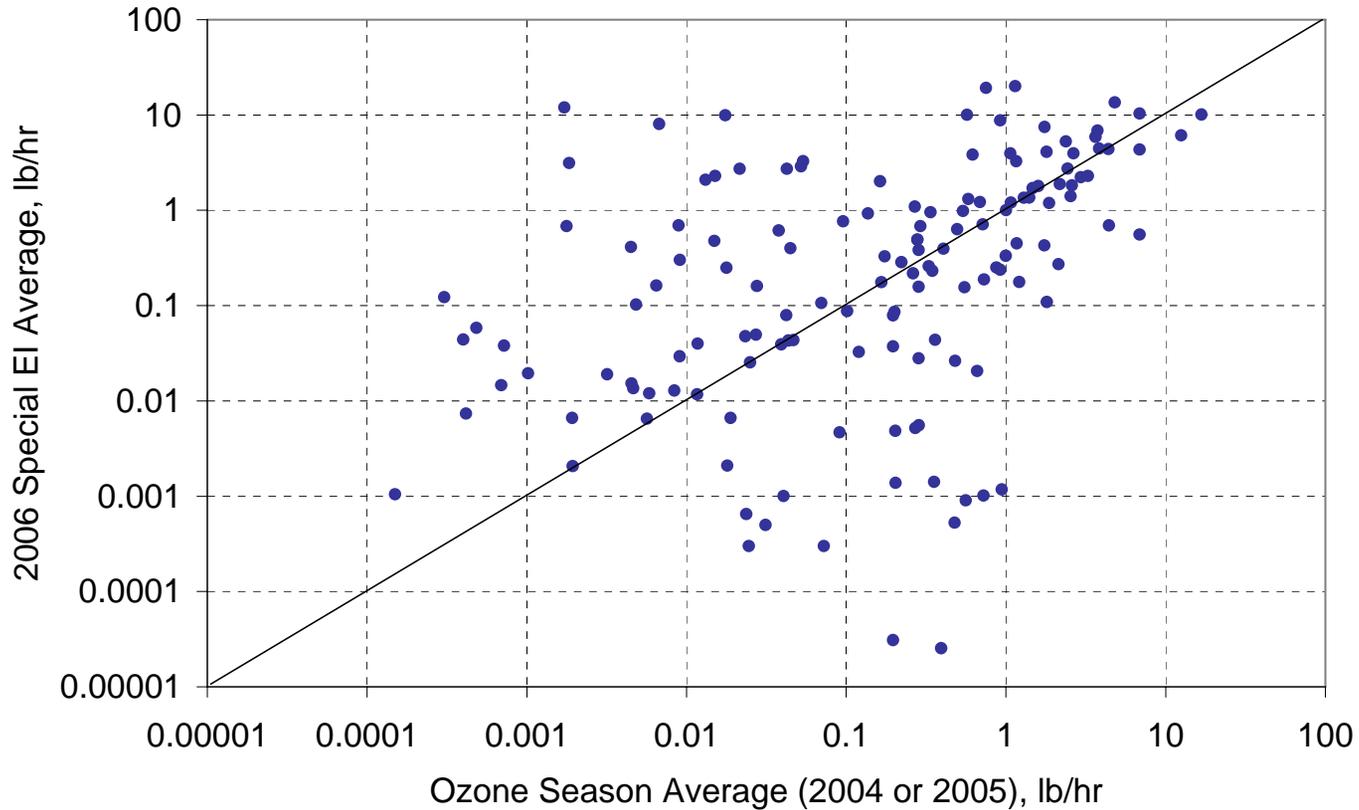


Total Hourly Ethylene Emissions



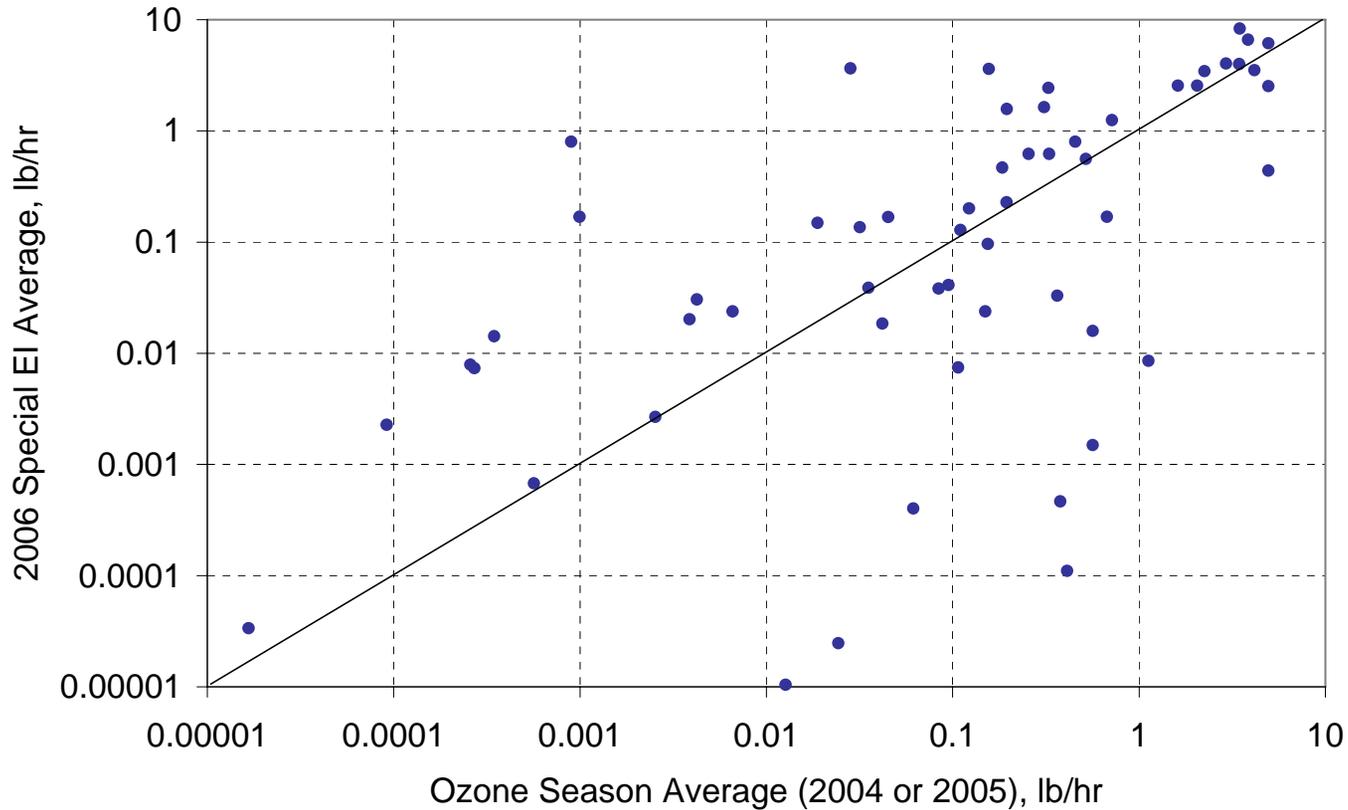
Comparison of 2006 Special EI with Reported Emissions from Most Recent Annual EI

Propylene Emissions



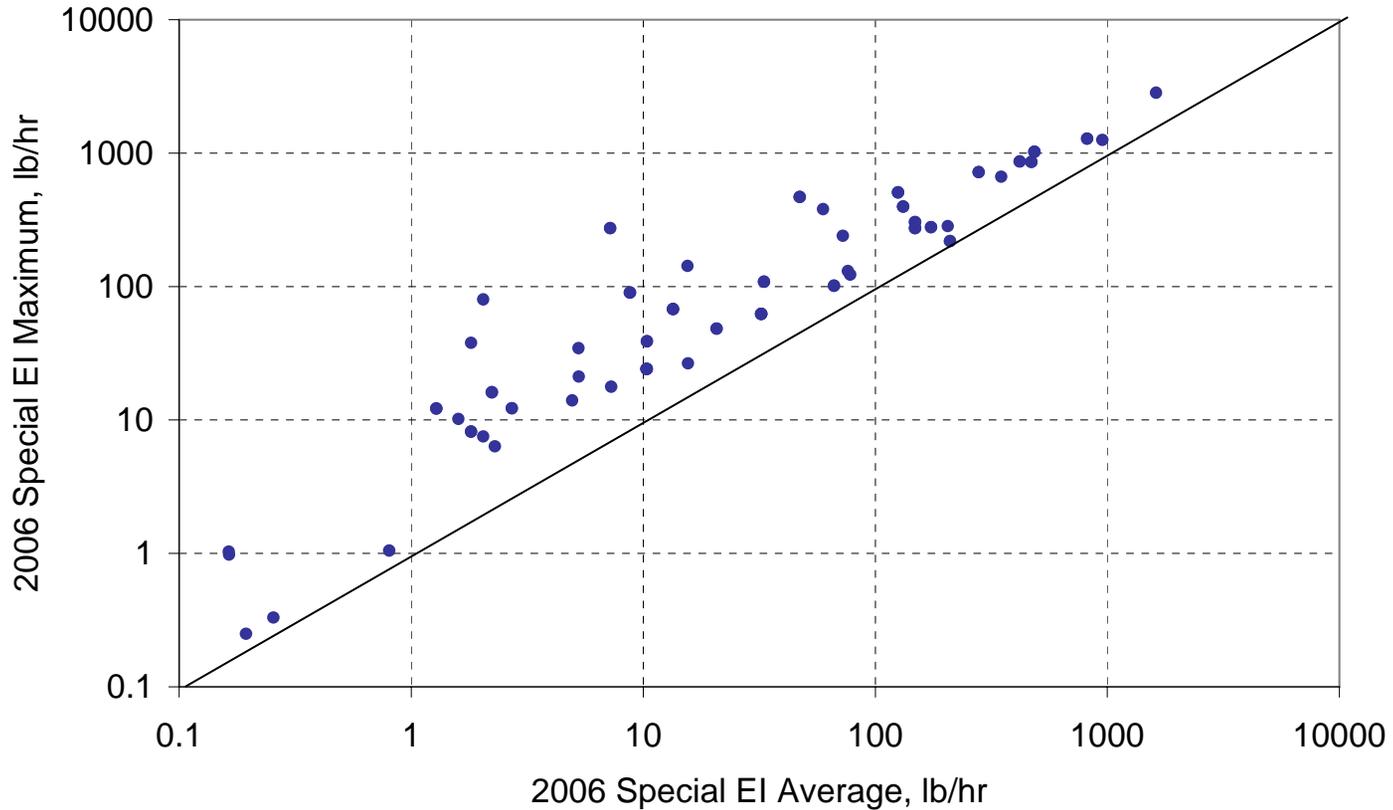
Comparison of 2006 Special EI with Reported Emissions from Most Recent Annual EI

1,3-Butadiene Emissions



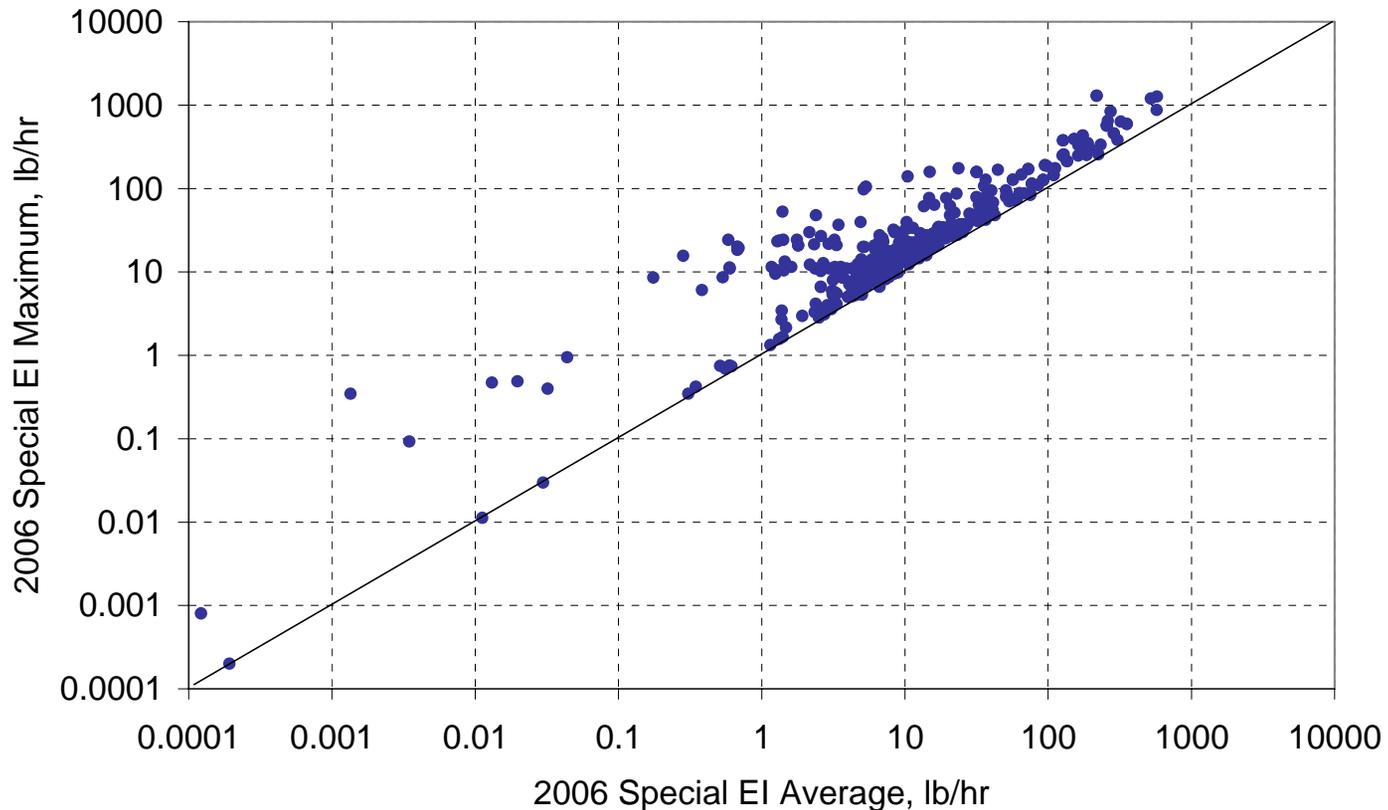
Comparison of 2006 Special EI Maximum and Average Hourly Emissions

Sulfur Dioxide Emissions



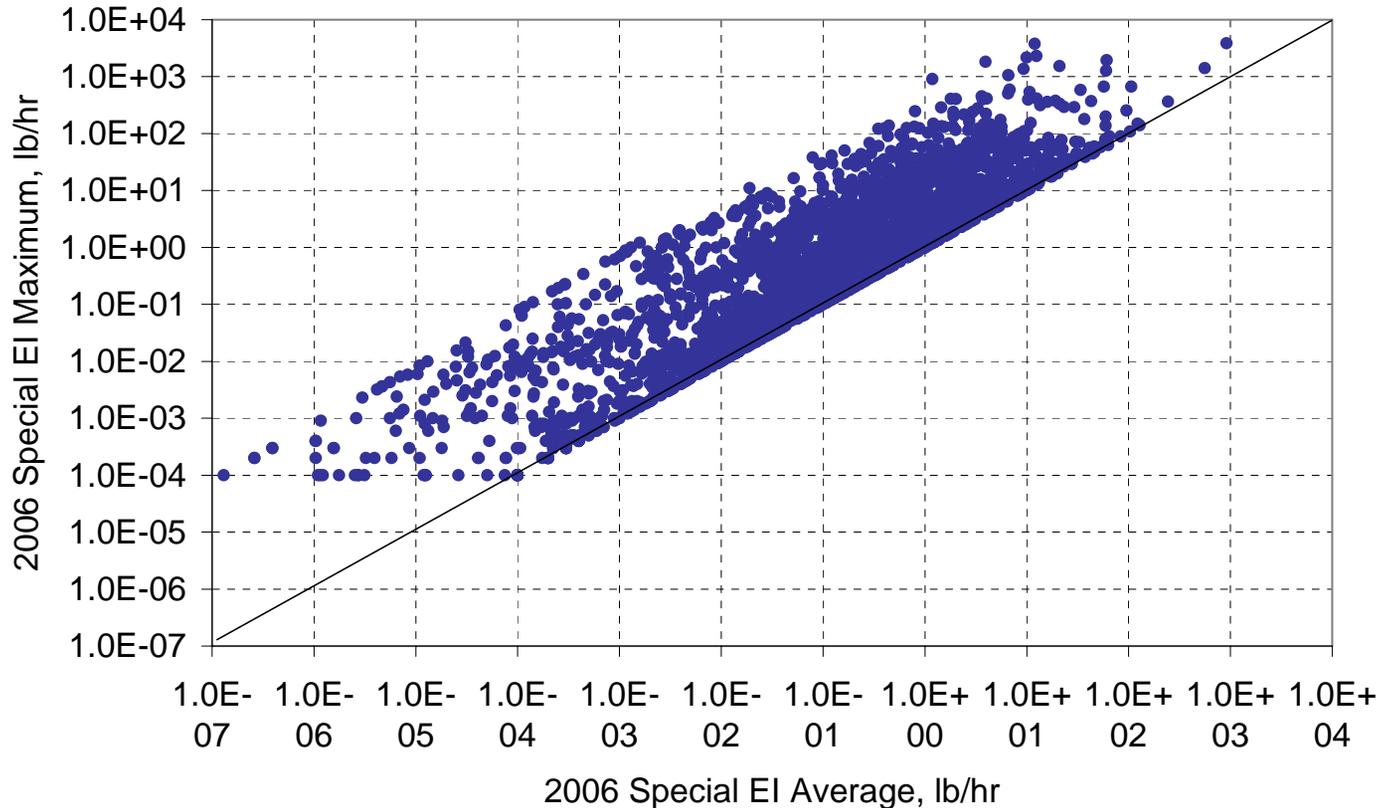
Comparison of 2006 Special EI Maximum and Average Hourly Emissions

Nitrogen Oxides Emissions



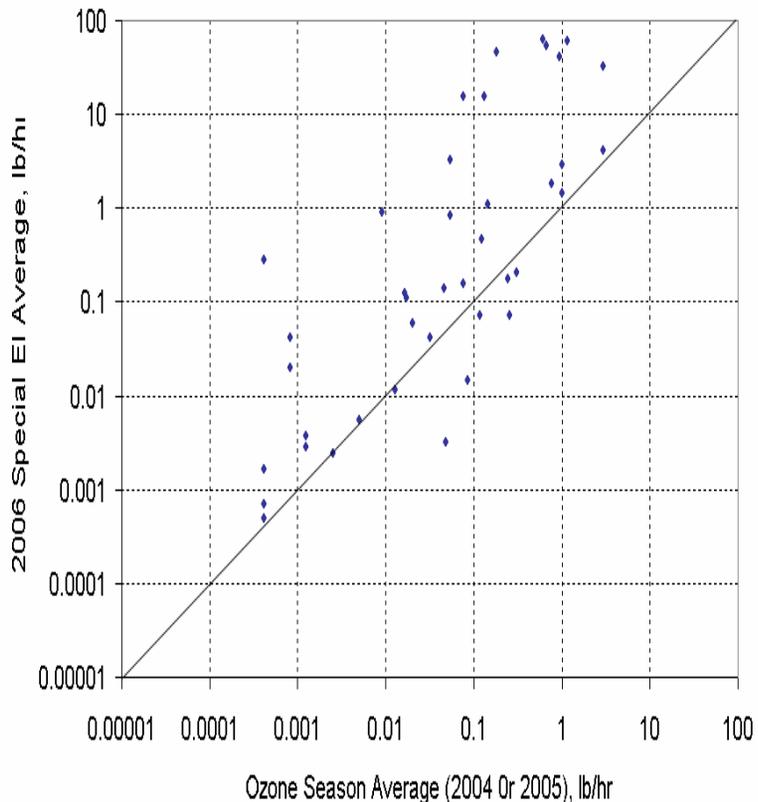
Comparison of 2006 Special EI Maximum and Average Hourly Emissions

VOC Emissions

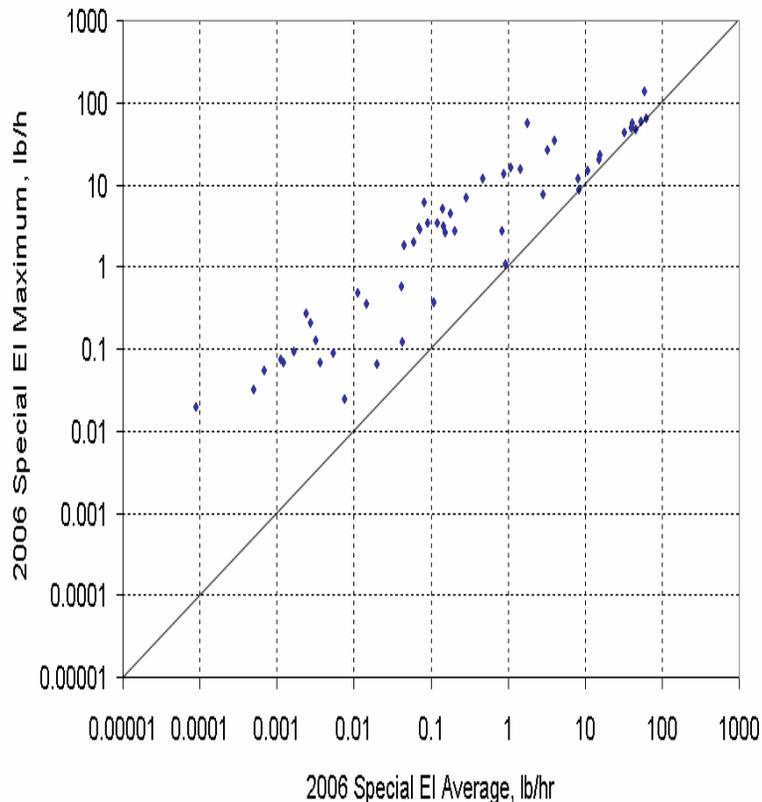


Comparison of 2006 Special EI Mean VOC Emissions with Last Annual Report (Left) and 2006 Special EI Hourly Maximum (Right): All Barges

Average to Average

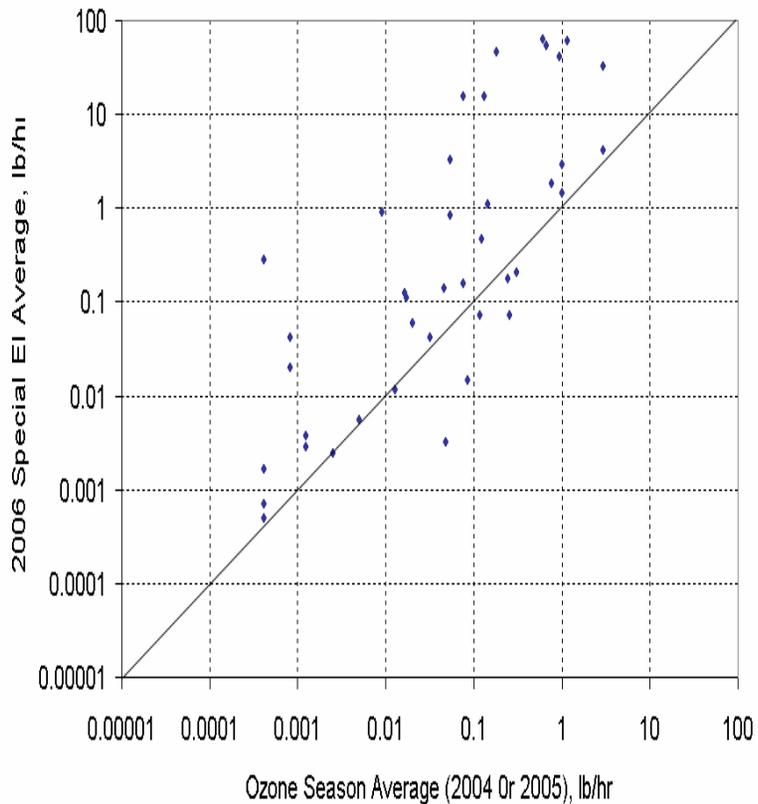


Peak to Mean

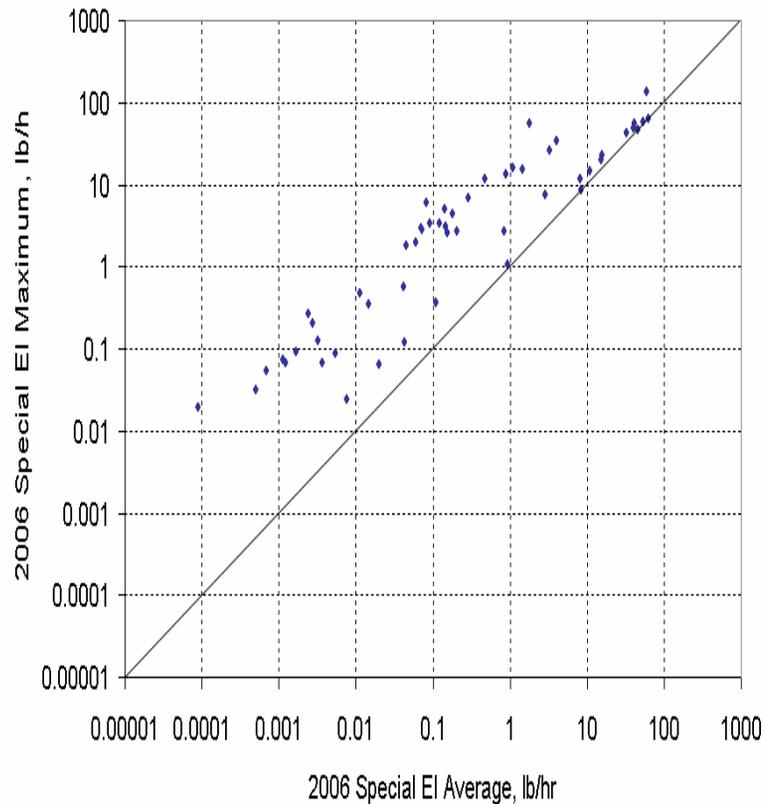


Comparison of 2006 Special EI Mean VOC Emissions with Last Annual Report (Left) and 2006 Special EI Hourly Maximum (Right): All Barges

Average to Average

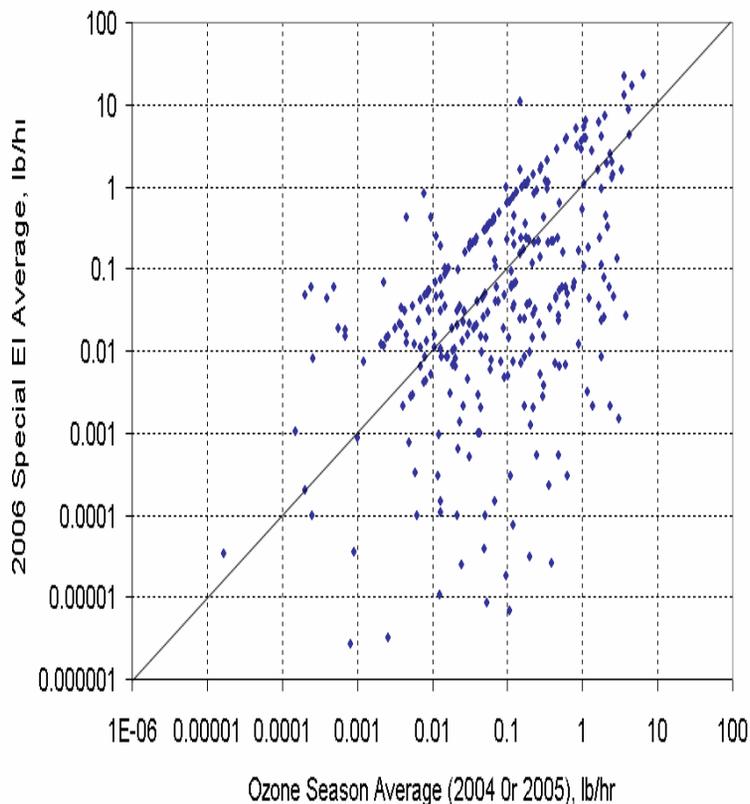


Peak to Mean

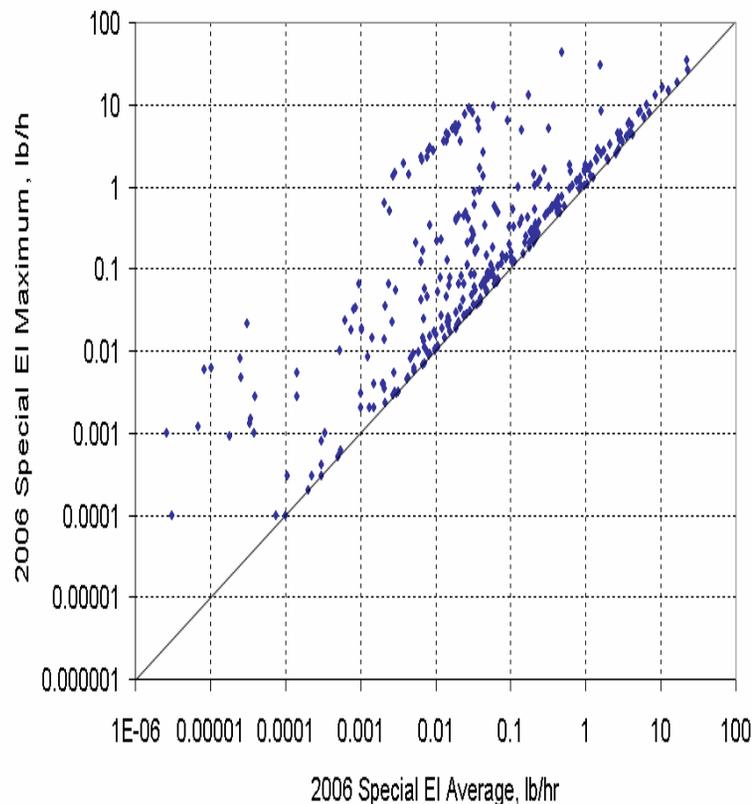


Comparison of 2006 Special EI Mean VOC Emissions with Last Annual Report (Left) and 2006 Special EI Hourly Maximum (Right): All Cooling Towers

Average to Average

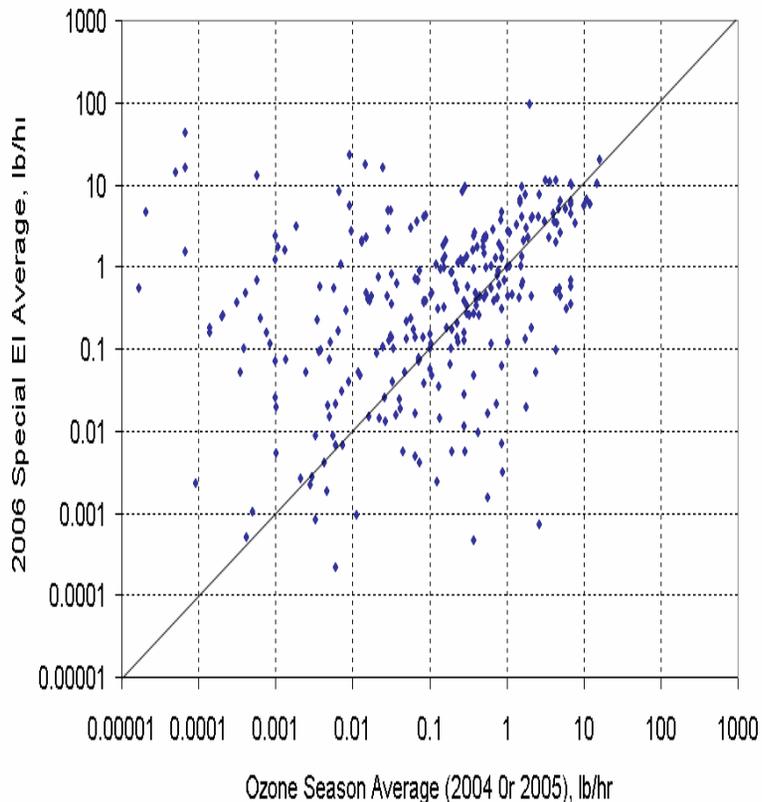


Peak to Mean

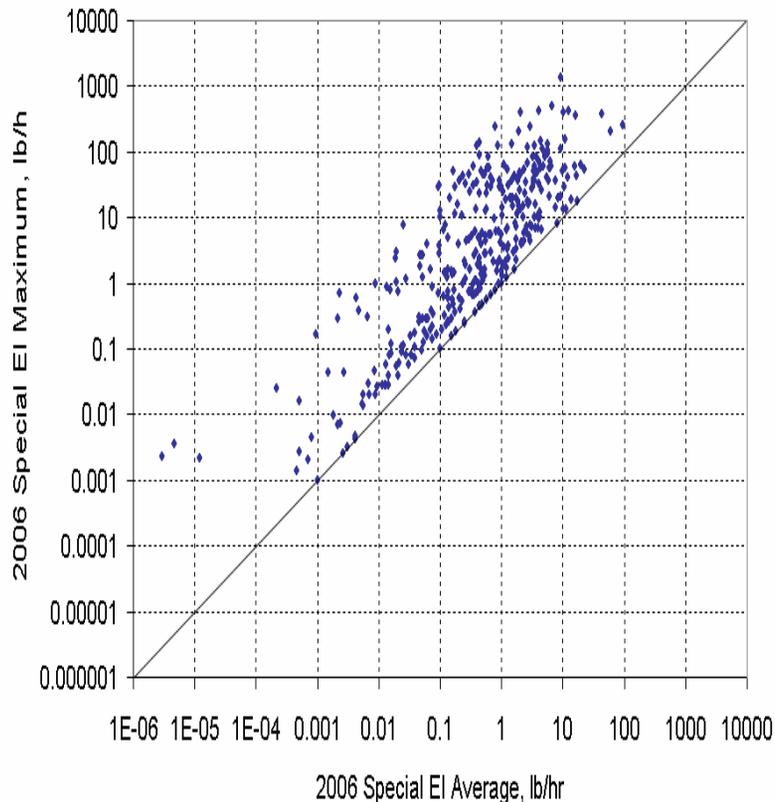


Comparison of 2006 Special EI Mean VOC Emissions with Last Annual Report (Left) and 2006 Special EI Hourly Maximum (Right): All Flares

Average to Average



Peak to Mean





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Questions?

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