Air Quality Primer

- Monitoring activities
- Monitoring results
- Emission inventory
- Inventory results
- Kansas City ozone
- Nonattainment and consequences
- What can you do
- Educational materials
Monitoring activities

- 23 locations, 47 monitors, 5 met stations, 2 transport sites; 1 background site
- Monitors are generally population based
- Weekly or more frequent visits
- Quality assurance a priority
- Cost of comprehensive site up to $150,000
Regulated Air Pollutants

- Ozone (1 hour and 8 hour)
- Particulate Matter (PM2.5 and PM10)
- Nitrogen Dioxide
- Sulfur Dioxide
- Carbon Monoxide
- Lead
Lawrence Area - Ozone

1 Hr. Standard = 124 PPB

Year

82 83 84 85 86 87

PPB
0 20 40 60 80 100 120 140

Jefferson Co. FAA Station
Lawrence Airport
Kansas City, KS - Ozone

1st High Daily Maximum 1 Hr. Average

Year

1 Hr. Standard = 124 P P B

Additional Exceedances
Emission Inventory

- Annual summary of pollutants emitted
- Point, area and mobile sources
- KDHE does point and some area, review others
- Applies to Class I and II permitted facilities
- Used for modeling, SIPs, planning
- Emission fees tied to inventory
Kansas Air Emission Inventory
Total Reported Emissions - tons

Graph 9
1999 Point Source Volatile Organic Compounds (VOCs) Emissions
1999 Point Source NO2 Emissions

NO2 (Tons)
- 0 - 100
- 1,001 - 5,000
- 5,001 - 25,000
- >25,000
1999 Point Source Hazardous Air Pollutants (HAPs)

HAPs (Tons)
- 0 - 100
- 101 - 500
- 501 - 2,500
- >2,500
Kansas City Ozone

- Regional modeling
  - Underprediction in city core
  - Overprediction downwind
  - Emission inventory problems
  - Meteorological problems

- Maintenance plan due for 10 year revision
- Conformity analysis underway
Nonattainment Consequences

- State Implementation Plan (SIP)
- Control strategy development
- RACT rules
- Transportation conformity
- More detailed emission inventory
- Photochemical modeling
What can you do??

- Educate public and decision-makers
- Voluntary pollutant reduction programs
- Monitor Kansas City activities
- Industry assistance through KSU program
- Practice what you preach—park the SUV
Educational Materials

- Posters
- Air quality annual report
- EPA web site
- KDHE web site
- Other state and local agency sites
- American Lung Association