



# VISTAS Use of CEM Data and CEM Cross-Referencing Activities

---

Presented by:  
Gregory Stella  
VISTAS Technical Advisor – Emission Inventories  
Alpine Geophysics, LLC

International Emission Inventory Conference  
RPO Breakout Session  
June 11, 2004  
Clearwater, Florida



# VISTAS CEM-Based Sources

---

- In VISTAS States
  - 861 units in EPA CEM data
  - 654 matched to VISTAS EI
    - 75.96% units matched by ORIS/BLRID
  - Annual SO<sub>2</sub> Emissions (2002)
    - 3,711,350 tons
  - Annual NO<sub>x</sub> Emissions (2002)
    - 1,499,950 tons



# Annual Emissions Matched (2002)

---

- SO<sub>2</sub> Emissions
  - 99.95% captured with match
  - Total of 3,709,330 tons
  
- NO<sub>x</sub> Emissions
  - 99.46% captured with match
  - Total of 1,491,810 tons



# Stakeholder Submissions

---

- Southern Company
  - AL, GA, FL, MS facilities
  - Submitted hourly emissions and heat input for all sources
    - Many which were not CEM sources
  - Reviewed by States and SIWG
    - All but GA CEM-based units approved



# Non-CEM Pollutants

---

- Current modeling paradigm uses temporal profiles for non-CEM based pollutants
  - VISTAS generated hourly emissions for VOC, CO, PM, NH<sub>3</sub> using hourly to annual heat input ratios
    - Allowed non-CEM emissions to be distributed with CEM-based data
    - Prevented non-CEM emissions to be distributed when unit not operating



# Non-CEM Sources

---

- Used State CEM averages to create new EGU-based profiles
  - By month
  - By day of week
  - By hour of day (weekday/weekend)
  - NO<sub>x</sub>, SO<sub>2</sub>, and heat input
    - Takes into account seasonal control rates
  
- Profiles applied to units based on SCC-pollutant combination
  - 101xxxxx/201xxxxx
  - NO<sub>x</sub>, SO<sub>2</sub>, Other



# Additional CEM-Based Activities

---

- Used historical averages of 2000 through 2002 CEM data
  - Generated profiles for “planning” EI
  - Normalizes activity when individual year may not represent typical operation
  - Month, day of week, hour of day profiles
  - CEM/non-CEM units