

North Carolina Emission Inventories

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Objectives

- Identify Inventory Problem Areas
- Recognize Inventory Achievements
- Introduce Changes to CY 2008 Reporting
- Discuss Program Reporting Inconsistencies

Problem Areas in the Inventory:

1. Selecting Appropriate Emission Factors
2. Reporting Specific Compound Emissions
3. Factor & Throughput Unit Agreement

Selecting Appropriate Emission Factors

- Best Available Data
- Hierarchy (CEM, Site-Specific Source Test, etc)
- Sources of Data

Reporting Specific Compound Emissions

Chromic Acid
Chromic Sulfate
Chromium Chloride

VS.

Chromium Unlisted Compounds

Factor and Throughput Unit Agreement

When Using AERO to Calculate Emissions:

- Units MUST Agree
- Watch Out for Converting Errors

Inventory Success Stories

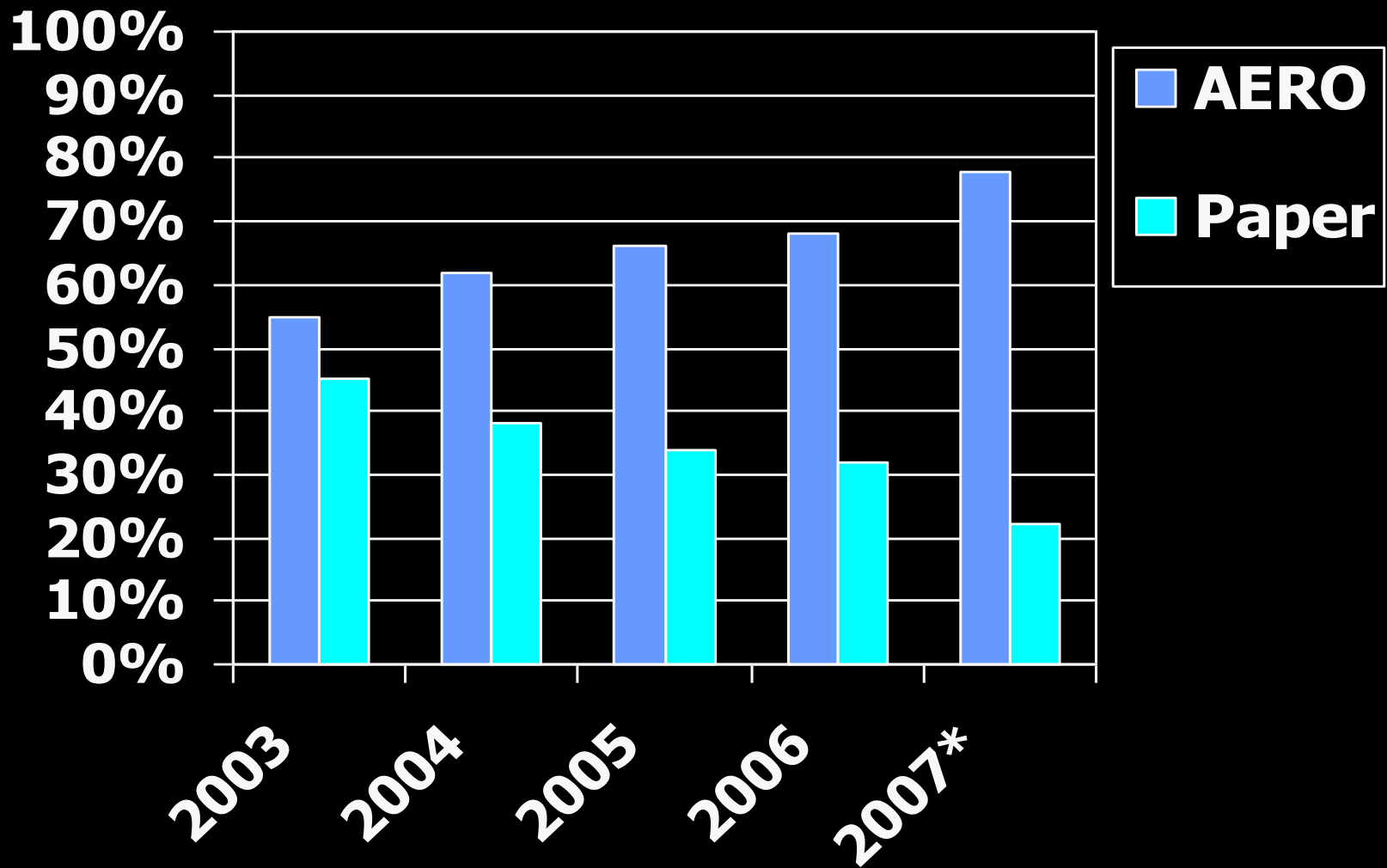
Stack Data

- We Won't Ask You For It Again!

AERO

- Easier data entry and review.
- Built in QA prior to submittal.
- Huge Time Savings!

Submittals Via AERO



Changes to CY 2008 Reporting

- Required Greenhouse Gas Reporting
- Insignificant Source Data Carry-over

Greenhouse Gas Reporting

- Required for Title V Facilities
- Voluntary for Synthetic Minor and Small Facilities
- 2008 NC GHG Emission Inventory Instructions
- Report all GHG emissions in **Tons**

See <http://ncair.org/monitor/eminv/forms/> for the
2008 NC GHG Emission Inventory Instructions

30 Specific GHG Pollutants

Carbon Dioxide (CO₂)	HFC-134a (1,1,1,2-tetrafluoroethane)	HFC-245ca (1,1,2,2,3-pentafluoropropane)
Methane (CH₄)	HFC-143 (1,1,2-trifluoroethane)	HFC-245fa (1,1,3,3-pentafluoropropane)
Nitrous Oxide (N₂O)	HFC-143a (1,1,1-trifluoroethane)	HFC-365mfc (1,1,1,3,3-pentafluorobutane)
Sulfur Hexafluoride (SF₆)	HFC-152 (1,2-difluoroethane)	Perfluorobutane (decafluorobutane)
HFC-23 (trifluoromethane)	HFC-152a (1,1-difluoroethane)	Perfluorocyclobutane (octafluorocyclobutane)
HFC-32 (difluoromethane)	HFC-161 (fluoroethane)	Perfluorohexane (tetradecafluorohexane)
HFC-41 (fluoromethane)	HFC-227ea (1,1,1,2,3,3,3-heptafluoropropane)	Perfluoropentane (dodecafluoropentane)
HFC-43-10mee (1,1,1,2,3,4,4,5,5,5-decafluoropentane)	HFC-236cb (1,1,1,2,2,3-hexafluoropropane)	Perfluoromethane (tetrafluoromethane)
HFC-125 (pentafluoroethane)	HFC-236ea (1,1,1,2,3,3-hexafluoropropane)	Perfluoroethane (hexafluoroethane)
HFC-134 (1,1,2,2-tetrafluoroethane)	HFC-236fa (1,1,1,3,3,3-hexafluoropropane)	Perfluoropropane (octafluoropropane)

GHG Reporting Thresholds

Pollutant	Threshold	GWP
Carbon Dioxide	100 tons	1
Methane	1 ton	21
Nitrous Oxide	1 ton	310
Sulfur hexafluoride	0.0005 tons	23,900
Perfluorocarbons and Hydrofluorocarbons	0.0005 tons each	varies

Common industry GHG Sources:

- Stationary Combustion Sources
- Refrigeration/Air Conditioning Equip

Do not report:

- Indirect emissions
- Mobile sources

Insignificant Source Data Carry-over

- Report Baseline Emissions
- Data Carries Forward Year to Year
- Facilities Either:
 1. indicate data are still valid, or
 2. update data if changed appreciably

Program Reporting Inconsistencies

Air Emissions Inventory

vs.

Toxic Release Inventory

Program Reporting Inconsistencies

TRI Facility	NC DAQ Facility	Chemical Name	Data Year	TRI Total Air Emissions (lbs)	NC DAQ Total Air Emissions (lbs)
Facility A	Facility A	Ammonia	2006	14,012	968
Facility B	Facility B	Ammonia	2004	141,049	Not Reported
Facility C	Facility C	Ammonia	2004	70,600	50,158

Questions?

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