

North Carolina Mercury Rule Update

2008 CAPCA Fall Meeting

Mercury Panel

Myrtle Beach, SC

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Presentation Summary

- ***NC Mercury (Hg) EGU Rules***
- ***EPA CAMR Vacatur***
- ***Vacatur Effects on NC Hg Rules***
- ***2002 NC Clean Smokestacks Act***
- ***Statewide Hg Emission Reductions***
- ***2012 DAQ Hg Report***

NC Mercury EGU Rules

- ***Effective January 2007***
- ***62 electric generating units (EGUs)***
 - ***Producing 14 Giga-watts***
- ***Key Provisions of EPA CAMR Rule***
 - ***2010 and 2018 emission caps***
 - ***Emission monitoring & recordkeeping***
- ***2 State-only rules***

NC Mercury EGU Rules (con'd)

- ***State-only provisions:***

- ***DAQ report Hg emissions, controls, effects, & recommended rule changes in 2008 & 2012***
- ***Utilities Hg control plan in 2013***
- ***CSA Allows NC to meet 2010 CAMR Hg emission caps***

EPA Clean Air Mercury Rules (CAMR) Vacature

- ***US DC Court Vacated CAMR Feb 2008***
 - ***CAMR unlawful because listed under Section 111, not 112 for HAP***
 - ***Removed Part 75 monitoring rules***
- ***Petitions to reconsider unsuccessful***
- ***EPA re-do EGU Hg rules under 112***

CAMR Vacatur Effects on NC Hg Rules and Emissions

- ***Any rule changes on hold***
- ***Enforceable State-only rules:***
 - ***Uncontrolled units shutdown by 2017***
 - ***Both utilities measure Hg control performance at 4 typical units by 2009***
 - ***New units Best Available Control Technology (BACT)***

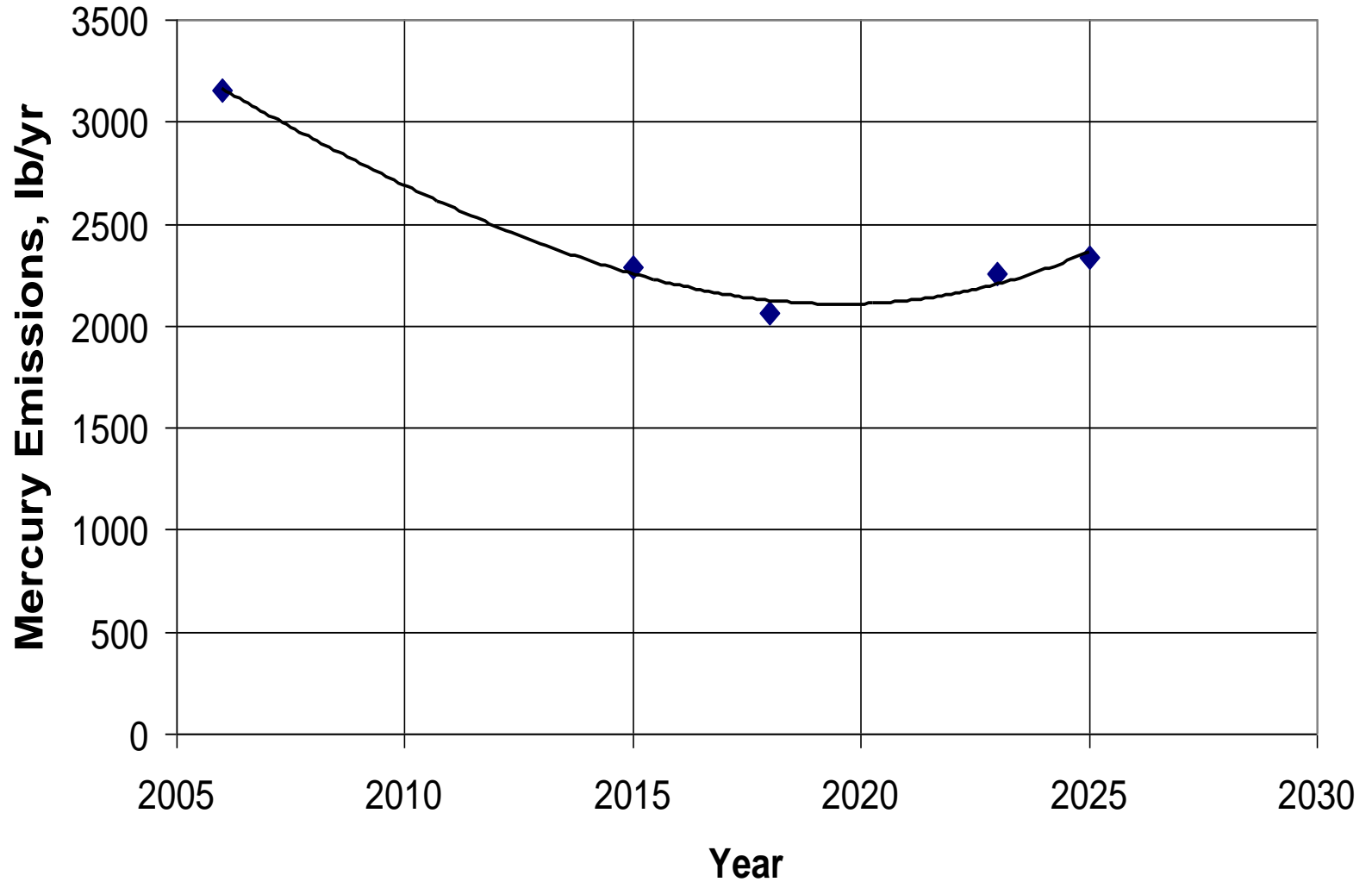
NC Clean Smokestacks Act (CSA) of 2002

- ***NO_x & SO₂ Caps on Emissions***
 - ***Tons / year***
 - ***Caps per Company - They decide how***
- ***Actual Emission Reductions in NC***
- ***NO_x & SO₂ Credits Held by State***
- ***Greatest AQ Benefit from In-state Reductions; but Controls in All States to Fully Solve AQ Problems***

Implementing Clean Smokestacks Act

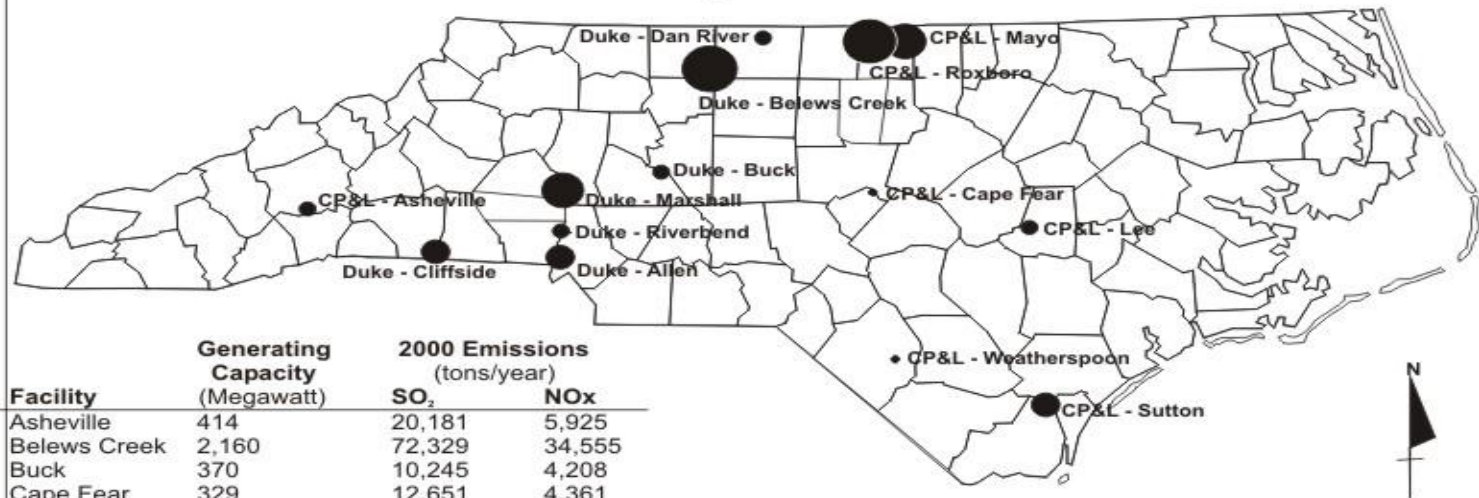
- *77% cut in NOx emissions by 2009*
- *73% cut in SO2 emissions by 2013*
- *Significant co-benefit Hg emission reductions by 2013*
- *Most reduction from oxidized Hg*
- *Most from FGD wet scrubbers*
 - *21 FGDs on Largest Units*
 - *FGDs on 85% Statewide Capacity*

Projected NC EGU Mercury Emissions

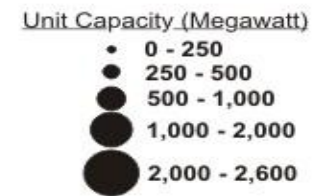


NC EGUs Location and Size

North Carolina Coal-Fired Electrical Generating Facilities Subject to SB 1078



Facility	Generating Capacity (Megawatt)	2000 Emissions (tons/year)	
		SO ₂	NO _x
Asheville	414	20,181	5,925
Belews Creek	2,160	72,329	34,555
Buck	370	10,245	4,208
Cape Fear	329	12,651	4,361
Cliffside	781	29,139	9,437
Dan River	290	5,833	2,574
Allen	1,155	34,059	13,054
Sutton	673	22,548	6,358
Lee	402	16,853	5,841
Marshall	1,996	79,041	27,074
Mayo	1,472	29,512	9,965
Riverbend	466	17,462	5,488
Roxboro	2,558	96,913	28,513
Weatherspoon	166	6,625	2,889



Data Reported per Title IV of Federal Clean Air Act

June 10, 2002

2006 Blood Mercury Levels Report Among Fish Consumers

- **CDC / NC DHHS pilot study**
 - **SE NC selected for high fish Hg**
 - **100 adult subsistence fish eaters**
- **Blood serum Hg results in ug/L units**
 - **Geometric mean = 2.0**
 - **0% child-bearing age woman > 3.5**
 - **7% of group > 20 = Warning level**

2012 DAQ Mercury Report

- *Total & speciated emission inventories*
- *Statewide mass balance*
- *Projected emissions 2015 - 2025*
- *Control technology assessment*
- *Hg in fish study & related issues*
- *Deposition & source attribution study*
- *Rule revision recommendations*

NC Mercury Rule Update Summary

- ***State Hg rule developed***
- ***CAMR vacatur not effect short-term Hg emission reductions from CSA***
- ***2 State-only Hg rules enforceable***
 - ***FGD performance measurements***
 - ***DAQ comprehensive report in 2012***
 - ***Utility companies control plan in 2013***