EPA Final CSAPR and MATS Regulations Update

Eugene M. Trisko

General Counsel

Unions for Jobs & the Environment, Inc.

UJAE BOD Meeting

January 24, 2012

Today's topics

- Examination of proposed new source air toxics emissions in the final MATS rule
- Quick CSAPR update, and new data on the need for this rule
- Implications for jobs and coal plant retirements

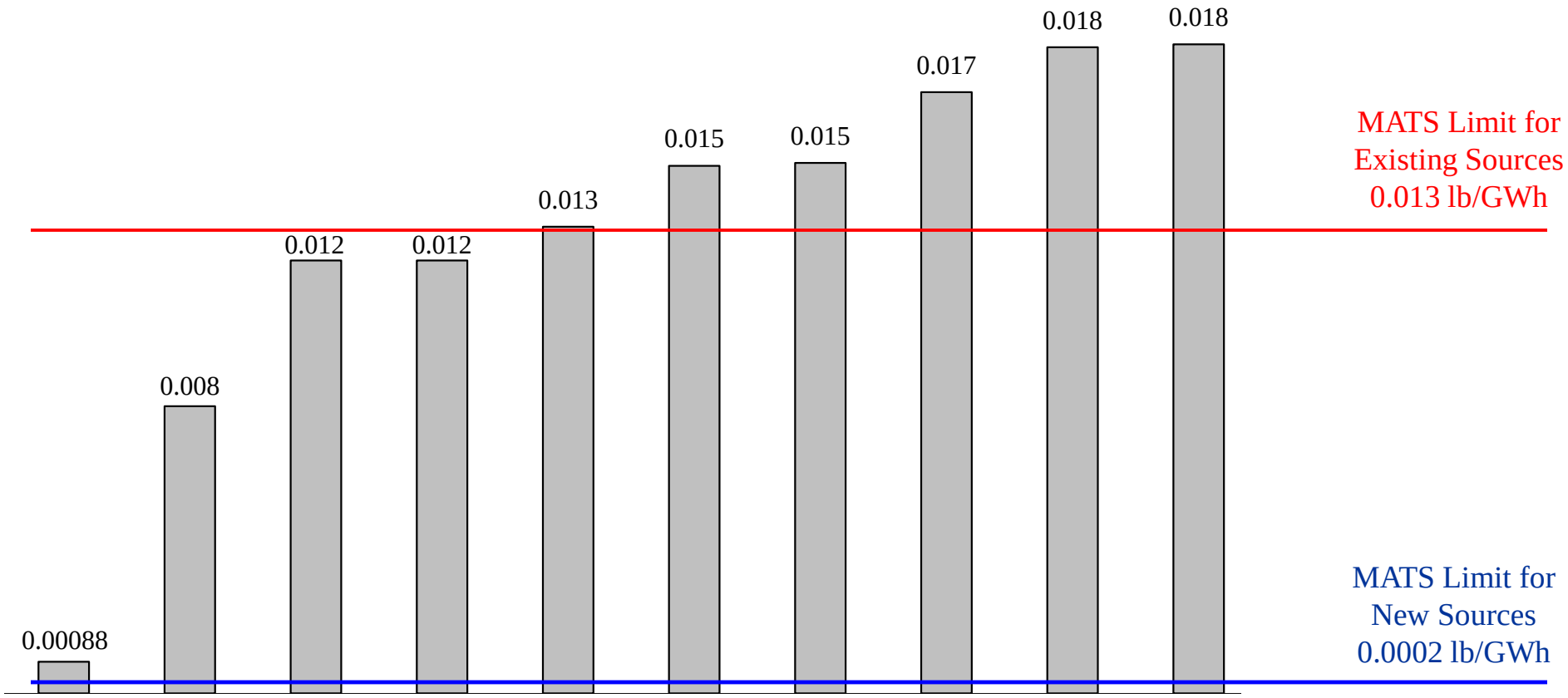
New Source MATS vs. Existing Source Limits

- Evaluation of air permit limits for all coal power plants permitted over the past decade. (40 units in-service or currently under construction)
- The 40 units:
  - employ the most advanced combustion technologies available
  - are equipped with state-of-the-art (BACT) emission controls
  - are subject to the most stringent air permit limits ever established
- If any existing coal unit could meet the final limits for New Sources, it should be among these 40 developed since 2001
- **None** can meet <u>all</u> of the New Source MACT limits

New Source Mercury MATS

Mercury MATS vs. Current Air Permit Limits*

(*most stringent permit limits identified by analysis of new coal units build since 2001)

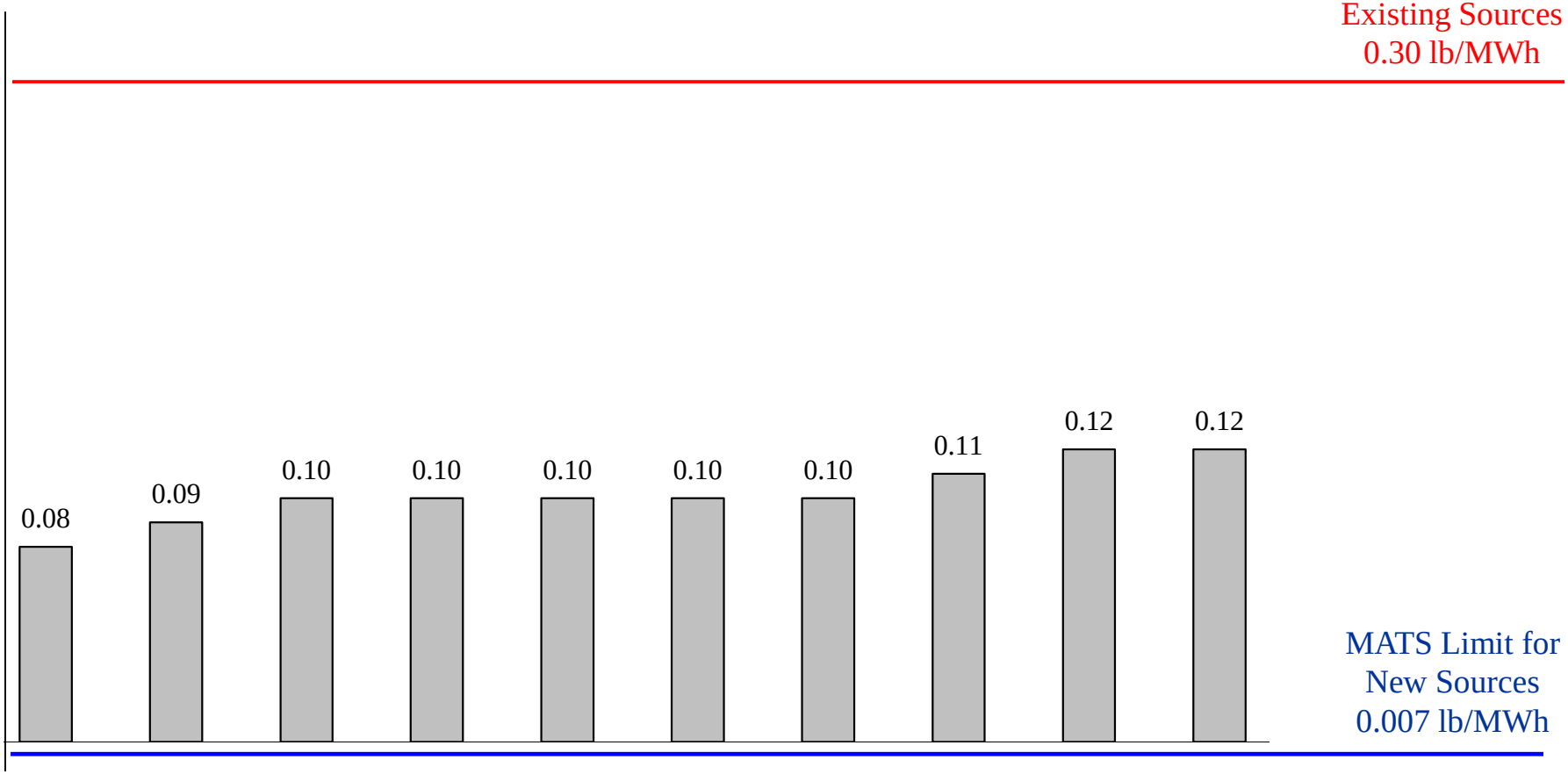


Source: Derived from AEP MATS Comments to U.S. EPA (2011).

New Source Filterable Particulate MATS

Particulate MATS vs. Current Air Permit Limits*

(*most stringent permit limits identified by analysis of new coal units build since 2001)

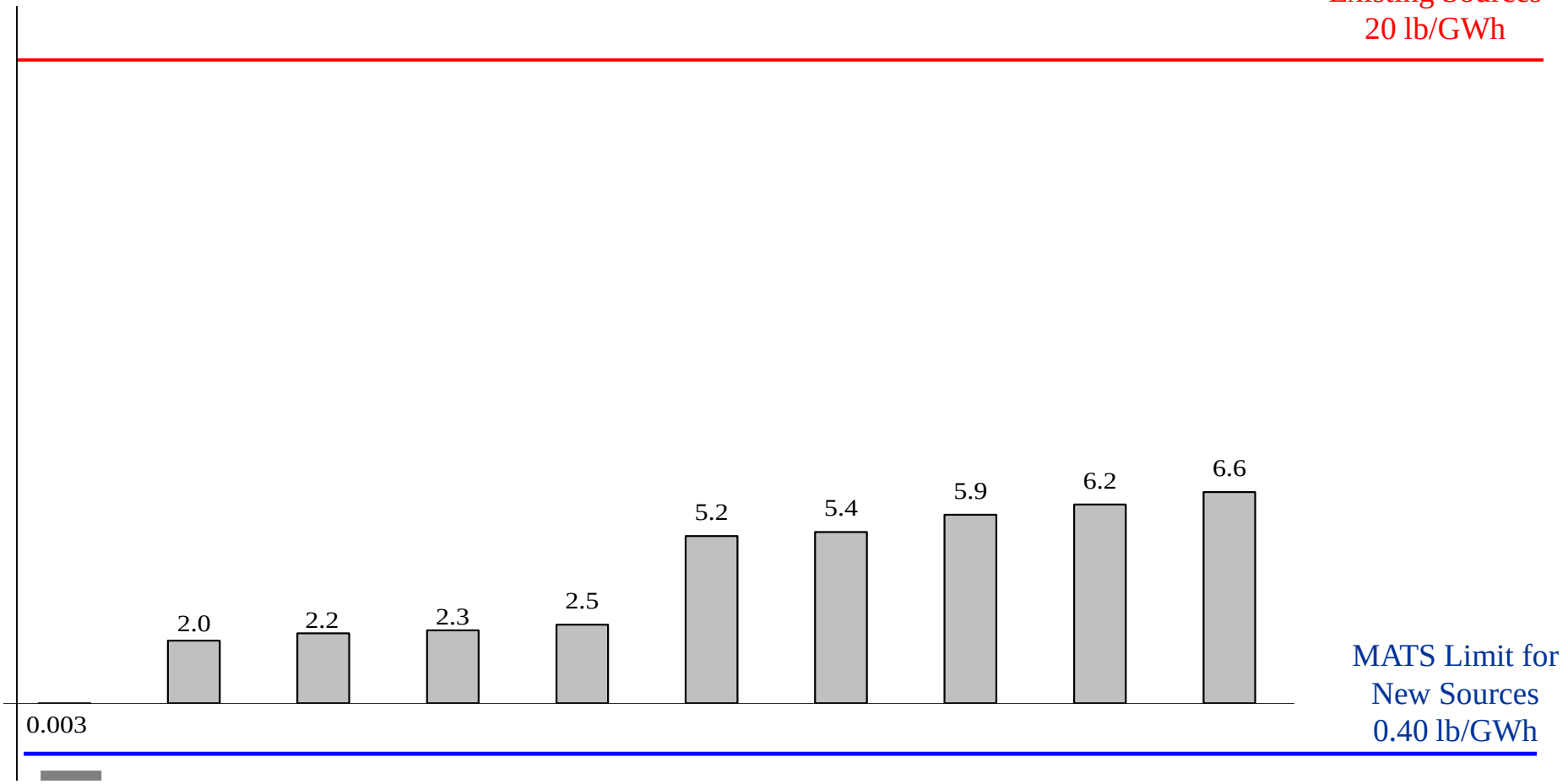


Source: Derived from AEP MATS Comments to U.S. EPA (2011).

New Source HCl Acid Gas MATS

HCl MATS vs. Current Air Permit Limits*

(*most stringent permit limits identified by analysis of new coal units build since 2001)



Source: Derived from AEP MATS Comments to U.S. EPA (2011).

Elimination of New Coal Plants?

- To meet the New Source limits, owners will have to:

1) operate well beyond manufacturer performance guarantees

2) achieve emission limits that are so low that compliance will be influenced by uncontrollable variables (changes in load, minor variations in fuel chemistry, etc.), at emission rates below the detection limits of available monitoring equipment

The new plant of the future per EPA (the one unit in the EPA database that allegedly meets new source MATS

Power Plant Profile

Logan

Owner	Ultimate Parent	Ownership (%)
United States Power Fund III	Energy Investors Funds Group	80.00
Cogentrix Energy LLC	Goldman Sachs Group Inc.	20.00

Operator
U.S. Operating Services Co

Site Information	
County, State	Gloucester, NJ
NERC Region/Subregion	RFC /R-PJM (100.00%)
ISO	PJM/PJM (100.00%)
Planning Area	PJM Interconnection (100.00%)
Balancing Authority	PJM Interconnection (100.00%)
Interconnected Utility	Atlantic City Electric Co.
Water Source	Delaware River

Plant Description	
Operating Status	Operating
Current Operating Capacity (MW)	219.0
Technology Type	Steam Turbine: Boiler
Primary Fuel Type	Bituminous coal
Secondary Fuel Type	Distillate Fuel Oil
Fuel Group(s)	Coal, Oil
Co-fired Units?	No
Fuel-switching Units?	No
Year First Unit In Service	1994
Cogenerator?	Yes
Regulatory Status	Merchant Unregulated

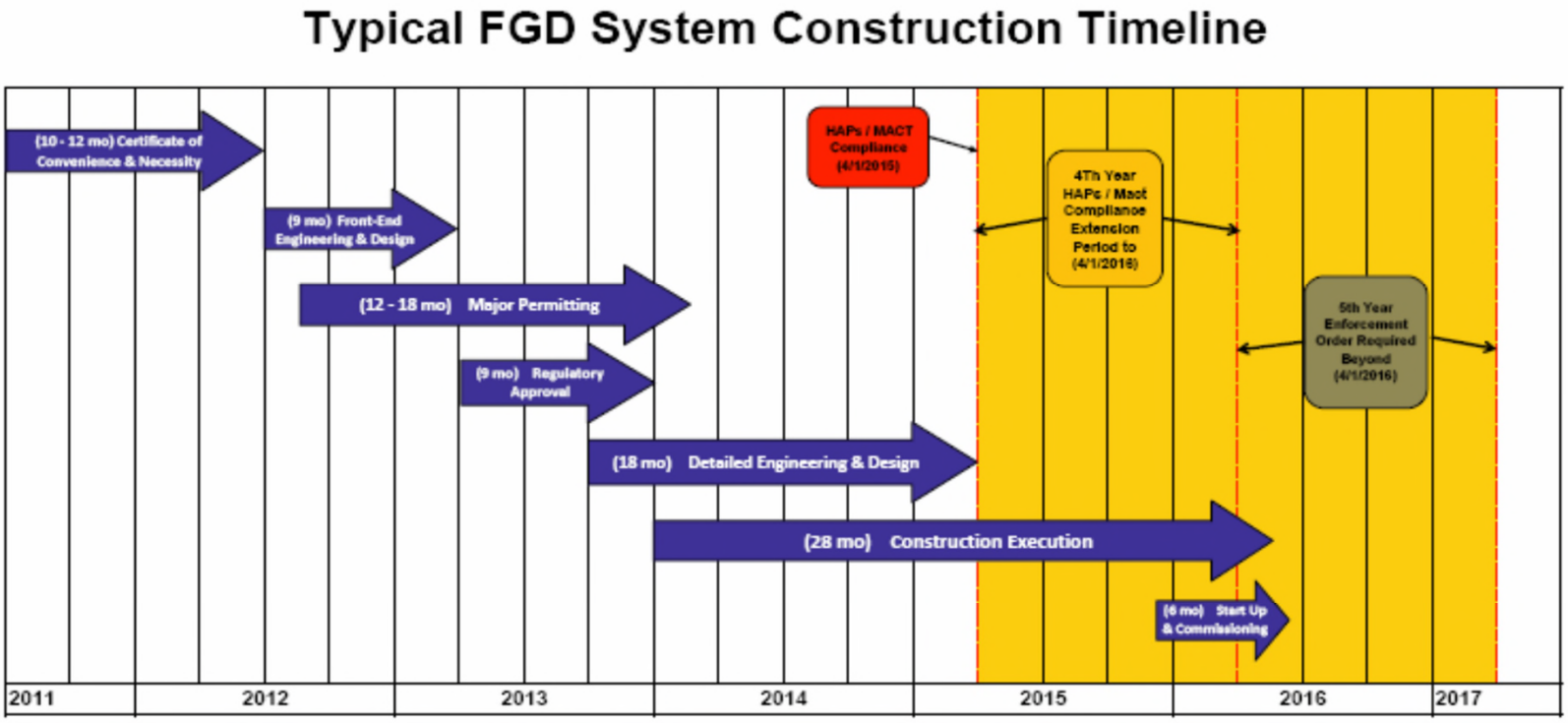
Logan characteristics

- 219 MW capacity, cogen (most "best performing" units are cogenerators)
- Spray dryer scrubber and baghouse, low-NOx burner with overfire air
- Coal sourced from Upshur and Webster counties WV, average 1.2% sulfur, 12,800 BTU/lb
- Delivered cost >$4/mmbtu, >$100/ton

Upshur & Webster counties

- In 2010, Upshur produced 567,000 tons with 105 employees.
- Webster produced 4.2 million tons with 348 employees.
- These two counties accounted for 3% of total WV 2010 production.

MATS: Inadequate FGD retrofit time even with 4th year – non-reliability-critical units need not apply for 5th year



The 4th Year Extension Period provides some relief to the construction schedule. However, units with compliance projects that extend beyond the 4th Year Extension Period that have no transmission reliability consequences will be forced to come off line.

CSAPR update

- Court of Appeals stayed CSAPR on December 30, two days before it was scheduled to take effect.
- Court's order provided additional words for petitioners' briefs.
- January 19 order requires accelerated briefs by February, oral argument in April (decision in June-July?)
- EPA is optimistic, has not acted on petitions for administrative reconsideration.

Is CSAPR Needed?
Monitored air quality in 2008-10 versus EPA modeled estimates of air quality in 2003-07 (the basis for the SO2 and NOx reductions in CSAPR)

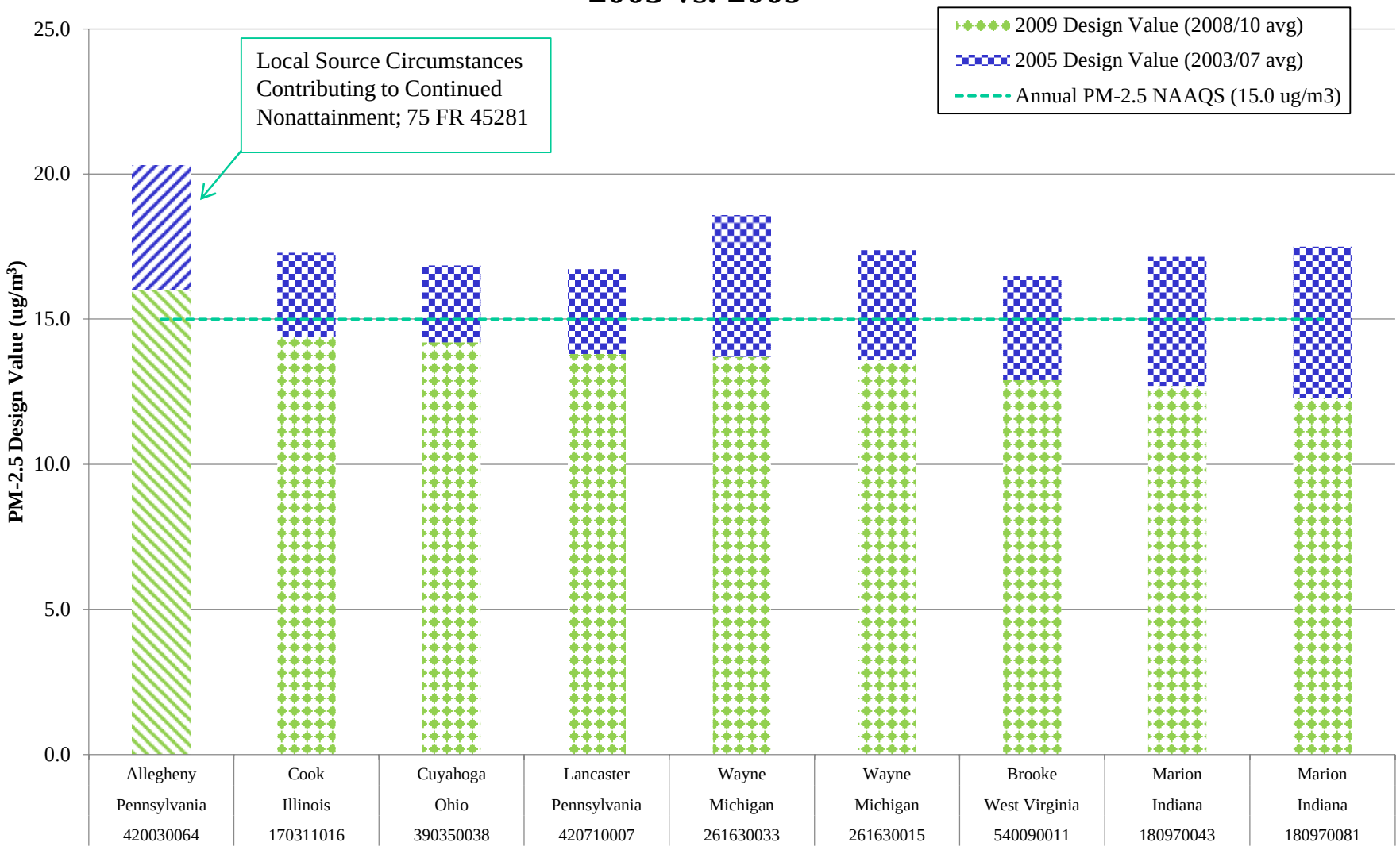
Alpine Geophysics

http://midwestozonegroup.com/files/Impacts_of_Updated_DV_Memorandum__Oct_2011_.pdf

Comparison of Average 8-hour Ozone Air Quality at Projected CSAPR Nonattainment Sites 2005 vs. 2009

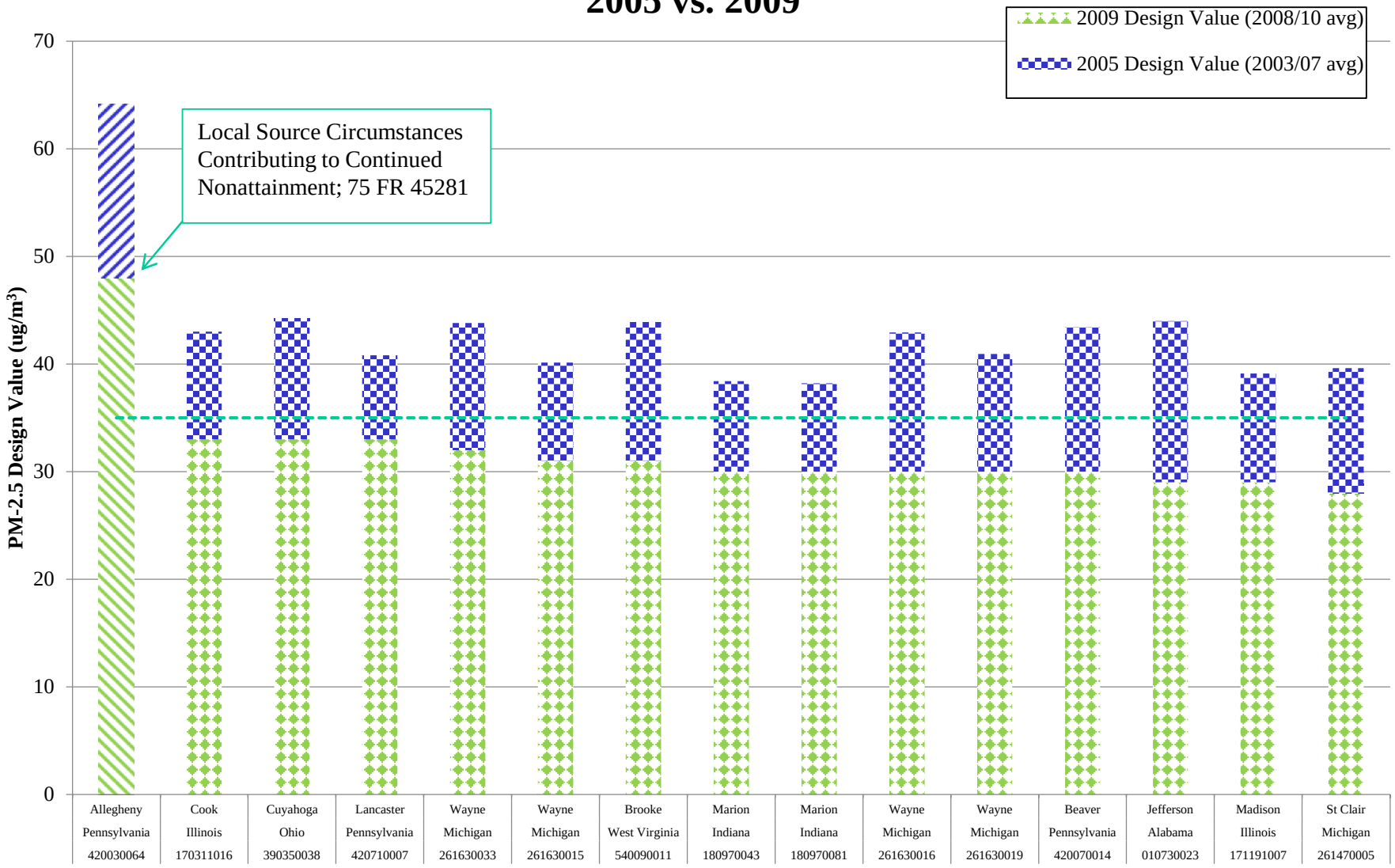
Source: http://midwestozonegroup.com/files/Impacts_of_Updated_DV_Memorandum__Oct_2011_.pdf, Table 1

Comparison of Average Annual $PM_{2.5}$ Air Quality at Projected CSAPR Nonattainment Sites 2005 vs. 2009



Source: http://midwestozonegroup.com/files/Impacts_of_Updated_DV_Memorandum__Oct_2011_.pdf, Table 3

Comparison of Average 24-hour $PM_{2.5}$ Air Quality at Projected CSAPR Nonattainment Sites 2005 vs. 2009



Source: http://midwestozonegroup.com/files/Impacts_of_Updated_DV_Memorandum__Oct_2011_.pdf, Table 5

The jobs math

- EPA and Center for American Progress claim MATS creates 40,000 jobs.
- EPA MATS RIA shows 9,000 utility permanent jobs plus 31,000 "job-years" in construction (31,000 + 9,000).
- RIA warns not to add the two figures, notes that the 9,000 estimate is not statistically different than zero.

Math, continued

- UMWA screening analysis (2010) estimated 54,000 direct jobs "at risk" and 251,000 direct and indirect at risk, based on 56 GW of retirements.
- NERA/ACCCE study (2011) estimates net loss of 1.65 million job-years with 39 GW capacity loss, equivalent to 239,000 permanent jobs.
- EPA final MATS RIA reduced estimated plant closures from 9.9 GW to 4.7 GW.
- EPA job estimates may be accurate if its capacity projections also are accurate.
- Most analyses put capacity loss at 30-70 GW.

EEI List of Coal Plant Retirement Announcements (48 GW)