

Summary and Analysis of the Clean Air Mercury Rule Decision: NJ et al. v. EPA, Decided February 8, 2008, D.C. Court of Appeals

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Decision:

3-0 in favor of petitioners (states and environmental groups)

D.C. Court of Appeals Judges:

Judge Rogers (Clinton appointee)
Judge Tatel (Clinton appointee)
Judge Brown (G.W. Bush appointee)

Background:

As part of 1990 Clean Air Act (CAA) amendments, Congress made several changes to section 112 due to “[concern] about the slow pace of EPA’s regulation of HAPs [Hazardous Air Pollutants].”¹ Section 112 requires the EPA to regulate sources using Maximum Achievable Control Technology (MACT) standards. First, Congress specifically required the EPA to regulate over 100 compounds. Second, Congress restricted the EPA’s ability to delete source categories regulated under section 112(c)(1). Congress required that HAP emitting sources could only be removed after making a determination that “no source in the category or subcategory concerned... exceed a level which is adequate to protect public health with an ample margin of safety and no adverse environmental effect will result from emissions from any source”(CAA § 112(c)(9)(B)(ii)). Third, Congress prohibited third parties from challenging the addition of any pollutant or source category to section 112 until the EPA “issues emissions standards for such pollutant or category” (CAA § 112(e)(4)).

Section 112(n)(1)(A) was also added in 1990 which required the EPA to conduct a study of the “hazards to public health...as a result of emissions by electric utility steam generating units” (EGUs) and report the results within 3 years. Section 112(n)(1) further required the EPA to add

EGUs to the list of sources regulated under section 112 if the EPA “finds such regulation is appropriate and necessary after considering the results of [this] study.”

In 1998, the EPA completed their study of natural gas-, coal- and oil-fired EGUs and found that emissions from coal- and oil-fired EGUs posed a potential hazard to public health. The EPA deemed that it was “appropriate and necessary” to add coal- and oil-fired EGUs to the list of source categories regulated under section 112 in December 2000 (end of Clinton administration).¹

In March 2005 (Bush administration), the EPA removed coal- and oil-fired EGUs from section 112. The EPA did not follow the procedure under section 112(c)(9), instead they reversed their earlier determination that it was “appropriate and necessary” to regulate coal- and oil-fired EGUs under section 112. EPA then promulgated the Clean Air Mercury Rule (CAMR) which regulates only coal-fired EGUs under the less stringent requirements of section 111 and uses a cap-and-trade approach modeled on the Acid Rain Program.^{1, 2}

Following EPA action, several states and environmental groups (“Petitioners”) filed suit to reverse the EPA’s decision.

Petitioners’ Arguments:

Petitioners argued that the removal of coal- and oil-fired EGUs from section 112 was unlawful because the EPA did not follow the removal procedure under section 112(c)(9). The Petitioners argued that the language of the statute clearly requires the EPA to follow the procedure in section 112(c)(9), and the EPA failed to adhere to this requirement and Congress’ clear intent. The Petitioners presented additional arguments regarding the inadequacy of CAMR regulations, but the Court did not consider these arguments because it agreed with the Petitioners’ first argument.

EPA’s Arguments:

First, the EPA argued that language in section 112(n)(1), the procedure for adding EGUs, made the delisting procedure in section 112(c)(9) ambiguous. If an agency can show that a section of a statute is ambiguous, then the courts must give deference to the agency’s interpretation of that section.³ The EPA argued that since section 112 (c)(9) was ambiguous, the Court should defer to the agency’s interpretation of this section.

Second, the EPA cited a principle of agency law which says that an agency has inherent authority to reverse its earlier decision if it has a rational basis for doing so.

Third, the EPA argued that they had “previously removed sources under section 112(c) without satisfying the requirements of section 112(c)(9).”¹ Therefore, the EPA argued that they should be able to continue following this practice. Evidently, no one challenged the EPA’s past practice of ignoring the procedures in section 112(c)(9).

Court's Analysis/Ruling:

The D.C. Court of Appeals ("D.C. Circuit") rejected all of EPA's arguments with little consideration and sided with the Petitioners. The Court determined that section 112(c)(9) was not ambiguous, and the EPA failed to follow the clear intent of the statute. The Court therefore rejected the EPA's first argument and did not defer to the agency's interpretation of the statute. The Court also found the EPA's second argument unpersuasive, stating that the EPA cannot reverse itself in this instance without following the procedure established by Congress in section 112(c)(9). The EPA's third argument was flatly rejected, i.e., the Court essentially gave no consideration to this argument. The Court stated that past violations cannot excuse the current violation.

The Court found that the EPA did not follow the proper procedure in deleting coal- and oil-fired EGUs from section 112 and thus vacated this decision. As a result, the Court also vacated the CAMR rules which were incorrectly promulgated under section 111. The Court determined that regulations should never have been promulgated under section 111 because EGUs should never have been deleted from section 112. The Court noted that even the EPA agrees that if EGUs are listed under section 112 that they cannot be regulated under section 111.

Potential for Appeals:

The EPA has two options to appeal the D.C. Circuit's opinion:

1. The EPA may seek an *en banc* rehearing by the D.C. Circuit, i.e., where all the judges on the D.C. Circuit rehear the case (as opposed to a 3 judge panel). However, a majority of the judges on the Court must agree to hear a case *en banc*. These types of hearings are disfavored and are only allowed when the issue "involves a question of exceptional importance" or to clarify conflicting decisions by the Court (which is not the case in this decision).⁴
2. The EPA may also petition the U.S. Supreme Court to review the decision, which would require a majority of the judges on the Court to agree to hear the appeal. However, it is unlikely that the Supreme Court would agree to hear the case because it is a narrow decision, i.e., it does not have wide-ranging implications for other situations and does not set any broad legal precedents.

In the unlikely event that an appeal is heard by either court, it is improbable that the case would be overturned in light of the D.C. Circuit's unanimous decision. Even Judge Brown, considered to be extremely conservative, agreed with the majority's decision. Furthermore, it is unlikely that either court would reverse the present decision because the EPA's arguments were given such little consideration.

Immediate Impacts:

As a result of the Court's decision to vacate CAMR, there are no federal regulations that currently require monitoring and reduction of mercury emissions from coal-fired EGUs.

However, mercury emission reductions from coal-fired EGUs will occur despite the vacatur of CAMR because of requirements put in place by the Clean Air Interstate Rule (CAIR) and by individual states.⁵ To achieve the Phase I mercury cap of 38 tons by 2010, CAMR relied on incidental mercury reductions that would result from NO_x and SO_x control technologies required under CAIR. Because CAIR remains in effect, these incidental mercury emission reductions will still occur following implementation of the NO_x and SO_x control technologies by 2010. CAMR's Phase II cap of 15 tons would not have been implemented until 2018. In addition to CAIR, state laws for monitoring and reducing mercury emissions that were promulgated independent of CAMR are likely to remain in effect.

Implications for State Mercury Rules:

Despite the lack of federal regulations currently in place for mercury emissions from coal-fired EGUs, most states have promulgated their own regulations for EGUs. States fall into four general categories: (1) states that promulgated their own regulations independent of CAMR, (2) states that adopted the EPA's model CAMR rules, (3) states that adopted a modified version of the model CAMR rules, and (4) states that have made a negative declaration. Mercury regulations in states that promulgated laws independent of CAMR are expected to remain in effect despite the vacatur of the federal regulations. Mercury regulations in states that promulgated laws under the CAMR framework are likely invalid.

States with Regulations Independent of CAMR: Several states have written their own mercury regulations in response to the passage of state laws or executive orders by their governor. Since these rules are predicated on state law and not written in response to CAMR, they are expected to be unaffected by the decision to vacate CAMR. However, any aspects of the state regulations that reference CAMR will need to be changed in light of the vacatur.

Emission requirements for the states that fall under this category are more stringent than those required by CAMR, requiring greater reductions in mercury emissions with shorter timelines for implementing the reductions. Table 1 summarizes the emission standards and monitoring requirements promulgated by these states.

Table 1: Emissions standards and monitoring requirements for states that promulgated rules independent of CAMR.

STATE	EMISSION STANDARDS	MONITORING REQUIREMENTS
NJ ⁶	- Requires either 90% removal efficiency or an emission standard of 3mg/MWh by 12/15/2007 - Agreement to implement multi-pollutant approach can reduce initial reduction requirements and extend compliance with above reductions to 12/15/2012	- Currently requires CEMS or 3 stack tests per quarter using Method 29
MA ⁷	- Requires facility average removal efficiency of 85% or an emission standard of 0.0075 lbs/GWh by 01/01/2008 - Requires facility average removal efficiency of 95% or an emission standard of 0.0025 lbs/GWh by 10/1/2012 - Reductions include both vapor and particulate phase Hg	- Requires CEMS, sorbent traps or other approved devices by 01/01/2008.
MD ⁸	- Requires removal efficiency of 80%, an emission standard as measured in oz/ trillion Btu of Heat Input, or as measured in lbs/year by 01/01/2010 - Requires removal efficiency of 90%, an emission rate as measured in oz/ trillion Btu of Heat Input, or as measured in lbs/year by 01/01/2013	- Requires CEMS by 01/01/2010
CT ⁹	- Requires removal efficiency of 90% or an emission standard of 0.6 lbs/ trillion Btu of heat input by 07/01/2008	- Currently requires quarterly stack testing using Method 29 or EPA approved method - CEMS shall be required starting 7/1/2008
WI ¹⁰	- Requires removal efficiency of 40% by 01/01/2010 - Requires removal efficiency of 75% by 01/01/2015	- Annual stack testing beginning in 2008, with report due by March 1st of each year using Method 101A or Method 29
NH ¹¹	- Requires removal efficiency of 80% by employing scrubber technology by 07/01/2013	- Bi-annual stack testing until CEMS "become available"
DE ¹²	- Requires removal efficiency of 80% or 1.0 lbs/trillion Btu heat input by 01/01/2009 - Requires removal efficiency of 90% or 0.6 lbs/trillion Btu heat input by 01/01/2013	- CEMS are required if emitter chooses the lbs/trillion Btu heat input standard - If emitter chooses efficiency standard then 3 stack tests per quarter are required

States that Adopted the Model CAMR Rules: Twenty four states adopted the model EPA rules for implementing CAMR with little or no changes.¹³ Since the CAMR rules were vacated, the implementation plans for all the states under this category are invalidated and no mercury regulations or monitoring requirements are in effect.

The following states adopted the model CAMR rules with minimal if any modification: Alabama, Alaska, Arkansas, Georgia, Hawaii, Iowa, Indiana, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Virginia, West Virginia, Wyoming

States that Adopted a Modified Version of the CAMR Rules: States under this category adopted a more stringent variation of the CAMR model rules or were in the process of writing such rules when CAMR was vacated.¹³ Since regulations under the CAA are considered minimum requirements, the states have the option to adopt more stringent requirements. For states in this category, however, the authority to write these rules stemmed from CAMR. Vacating CAMR removed the states' authority to promulgate these rules; therefore any mercury regulations promulgated by these states are likely invalid. It is possible that some states in this category will

be able to salvage their mercury requirements if they only used CAMR as the authority to promulgate regulations and did not use the CAMR model rules themselves. However, any aspects of these requirements that incorporate CAMR by reference will need to be changed.

The following states that have adopted a modified version of the CAMR rules: Arizona, California, Colorado, Florida, Illinois, Michigan, Minnesota, Montana, New Mexico, New York, Nebraska, Oregon, Pennsylvania, Utah, Washington

States that Submitted a Negative Declaration: The remaining states and the District of Columbia do not currently have any coal-fired EGUs within their state.¹³ These states have submitted a negative declaration to the EPA certifying the previous statement.

Implications for Federal Mercury Rules:

Following the Court's decision, both coal- and oil-fired EGUs remain listed as source categories under section 112. The EPA must take one of two courses regarding future regulations: (1) the EPA can promulgate emission standards for coal- and oil-fired EGUs with MACT rules, or (2) the EPA can try to delist coal- and oil-fired EGUs by following the 112(c)(9) procedures. It is improbable that the EPA will succeed in any effort to delist coal- and oil-fired EGUs from section 112 because the delisting procedure requires the EPA to show that no EGU emits HAPs at a level that threatens public health or adversely effects the environment.

If the EPA does not pursue delisting or if it fails in its attempt to delist, then the EPA must promulgate emission standards for coal- and oil-fired EGUs under section 112 (the MACT rules). It is unclear at this time when the new MACT rules will be proposed and promulgated, what the new emission requirements will be, and what the new monitoring requirements will be.

Timing of New MACT Rules: The EPA is not expected to take action on any new MACT rules for coal- and oil-fired EGUs until the Administration change in 2009. Congress may force the EPA to act sooner if Senate Bill S.2643 is passed. This bill, proposed on February 14, 2008 by Senator Thomas Carper, would require the EPA to propose new emissions control standards no later than October 1, 2008 and would require the proposal to include a 90% mercury reduction for every coal-fired EGU.

New MACT Rule Emission Requirements: It is important to note that the U.S. District Court of Appeals vacated CAMR because they agreed with the Petitioners' first argument that the EPA did not follow proper delisting procedures. Once they agreed with this first argument, the Court did not need to consider any further arguments involving the adequacy of emission reduction requirements or the cap-and-trade program in protecting public health.

Although the Court did not directly instruct the EPA to write more stringent emission reduction requirements, more stringent requirements are likely to result from forcing the EPA to regulate coal- and oil-fired EGUs using MACT rules. Section 112(d)(3) requires the EPA to write emission standards based on the best control technologies in place at the time the rules are promulgated. Currently, the only certainty regarding emission requirements under a new MACT rule is that every source will be required to meet an emission standard. Emission standards could

take any one or a combination of forms including: percent mercury reduction over time, percent removal efficiency, and emission limits in lbs/year, lbs/TBtu, lbs/MWh, mg/MWh, mg/m³, etc.

While it is difficult to predict what the emission requirements for a new MACT rule will be, it may be helpful to examine the MACT rule for coal- and oil-fired EGUs proposed by the EPA in January of 2004.¹⁴ The EPA proposed this MACT rule as an alternative to the CAMR rule prior to delisting EGUs from section 112 in March 2005.¹⁴ Revisiting the 2004 proposed MACT rule may be a first step for the EPA in writing any new MACT standards for coal-and oil-fired EGUs, especially if the agency is required to propose new regulations in a relatively short period of time, e.g., under Sen. Carper’s bill.

Under the 2004 proposed MACT rules, mercury emission limits were established for coal-fired EGUs based on coal type, and nickel emission limits were established for oil-fired EGUs. For both coal- and oil-fired EGUs, existing units could comply with either input-based or output-based limits, while new units were subject to the output-based limit. Figure 1 below shows the mercury emission limit tables for existing and new coal-fired units under the proposed 2004 MACT rule. Compliance with the mercury emission limit was to be determined based on a rolling 12-month average.

Unit type	Hg (lb/TBtu) ¹	or	Hg (10 ⁻⁶ lb/MWh) ¹
Bituminous-fired ²	2.0	or	21
Subbituminous-fired	5.8	or	61
Lignite-fired	9.2	or	98
IGCC unit	19	or	200
Coal refuse-fired	0.38	or	4.1

¹ Based on 12-month rolling average.
² Anthracite units are included with bituminous units.

Unit type	Hg (10 ⁻⁶ lb/MWh) ¹
Bituminous-fired ²	6.0
Subbituminous-fired	20
Lignite-fired	62
IGCC unit	³ 20
Coal refuse-fired	1.1

¹ Based on 12-month rolling average.
² Anthracite units are included with bituminous units.
³ Based on 90 percent reduction for beyond-the-floor control.

Figure 1: Mercury emission limits for coal-fired EGUs under the EPA’s proposed 2004 MACT rule for coal- and oil-fired EGUs.

New MACT Rule Monitoring Requirements: Under CAMR, the EPA required mercury monitoring to be done using continuous emissions monitors (CEMs) or a solid sorbent trap method.² These mercury monitoring requirements, including mercury CEM specifications listed in Performance Specification 12a and 40 CFR 75 and the solid sorbent trap monitoring method listed in Appendix K of 40 CFR 75, are invalid now that CAMR has been vacated. Performance Specification 12a for mercury CEMs (Specifications and Test Procedures for Total Vapor-phase Mercury Continuous Monitoring Systems in Stationary Sources) and the solid sorbent trap method (Determination of Vapor Phase Flue Gas Mercury Emissions from Stationary Sources Using Dry Sorbent Trap Sampling) comprised the monitoring requirements of the proposed 2004 MACT rule for coal- and oil-fired EGUs.¹⁴ Should the EPA use the 2004 proposed MACT rule as the basis for a new MACT rule, similar monitoring requirements involving the use of mercury CEMs and the solid sorbent trap method may be included.

Notably, particulate mercury was not included in the monitoring requirement of the proposed 2004 MACT rule and the now-vacated CAMR. At the time the methods and rules were written, the EPA was only aware of atomic fluorescence and atomic adsorption as commercially-available CEM technologies for measuring mercury emissions. The EPA should now be aware that a CEM based on X-ray fluorescence technology is commercially available, and this CEM can continuously measure total mercury as well as other metals simultaneously. Monitoring requirements under a new MACT rule may have to address measurement of particulate mercury.

References:

1. *N.J. et al. v. EPA*, ___F.3d___, Docket No. 05-1097 (D.C. Circuit, Feb., 8 2008)
2. *Standards of Performance for New and Existing Stationary Sources Electric Utility Steam Generating Units [The Clean Air Mercury Rule]: Final Rule*, 70 Fed. Reg. 28606 (May 18, 2005)
3. *Chevron v. NRDC*, 467 US 837 (1984). Under the two step Chevron approach, a court first determines whether the intent of a statute is clear. If the intent is clear, then the agency must follow the statute's clear intent. If the statute is ambiguous, then the court will defer to the agency's interpretation of the statute. The court must uphold the agency's interpretation of the statute if this interpretation is reasonable, regardless of the court's opinion of the interpretation.
4. Rules of the District of Columbia Court of Appeals, Rule 35 (March 1, 2007)
5. *Rule To Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to the NOX SIP Call; Final Rule*, 70 Fed. Reg. 25162 (May 12, 2005)
6. N.J. Admin Code 7:27-27.7(a) (2006); N.J Admin Code 7:27-27.7(b) (2006)
7. Code Mass. Regs. 7.29(5)(a)3.e (2006); Code Mass. Regs. 7.29(5)(a)3.g (2006)
8. COMAR 26.11.27.04.D (2006); COMAR 26.11.27.04.E (2006)
9. Conn. Gen Stat. CH 446c Sec. 22a-199(b)(1) (2007); Conn. Gen Stat. CH 446c Sec 22a-199(b)(3)(A) (2007)
10. Wis. Admin. Code NR 466.06 (2006); Wis. Admin. Code NR 446.09(1)(c)(1) (2006)
11. N.H. Rev. Stat. § 125-O:11, I (2006); N.H. Rev. Stat. § 125-O:15 (2006)
12. Del. Reg. No. 1146, 6.0(2006); Delaware Reg. No. 1146 6.4 (2006)
13. *State Mercury Programs for Utilities*, National Association of Clean Air Agencies (December 4, 2007)
14. *Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units; Proposed Rule*, 69 Fed. Reg. 4652 (January 30, 2004)

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