

# ELR

## NEWS & ANALYSIS

## Recent Developments in the Regulation of Hazardous Air Pollutants

by David P. Novello

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*Editors' Summary: David P. Novello surveys the significant developments in hazardous air pollutant (HAP) regulation in this Article. Since early 2007, EPA has suffered significant reversals in the U.S. Court of Appeals for the District of Columbia (D.C.) Circuit concerning its HAP regulatory program, including the remand of three national emission standards for hazardous air pollutants. In early 2008, the D.C. Circuit also ruled invalid EPA's decision on how to regulate mercury emissions from electric utilities. In light of these recent reversals, the Agency is reworking standards still in development and needs to go back to the drawing board to redevelop maximum available control technology standards for electric utilities. Courts have also ordered the Agency to promulgate a number of "area source" standards by the middle of next year; and EPA has been busy making "residual risk" determinations. This Article describes these cases and controversies surrounding developments in EPA's air toxics program during the eventful past 18 months.*

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### I. Judicial Decisions Remanding MACT Standards

In 2007, the U.S. Court of Appeals for the District of Columbia (D.C.) Circuit ruled against the U.S. Environmental Protection Agency (EPA) in a trio of important cases in which environmental groups challenged standards promulgated under the Clean Air Act (CAA) §112(d).<sup>1</sup> The cases are important not only for the directly affected industrial source categories, i.e., types of facilities, but also for remaining maximum achievable control technology (MACT) standards and possibly for the technology reviews described under CAA §112(d)(6) as well.<sup>2</sup> MACT standards are significant because they are the primary means for regulating air toxics from stationary sources under the CAA, and generally require facilities to install air pollution control technology.

#### A. Brick MACT Decision

The first of EPA's losses came in the case, *Sierra Club v. U.S. Environmental Protection Agency* (Brick MACT decision),<sup>3</sup> vacating the MACT standards for brick and ceramic kilns. In deciding to vacate and remand the standards, the

court considered: (1) accounting for possible raw material and fuel substitutions; (2) whether MACT standards need to be "achievable" by all or many of the existing sources in the category; (3) the appropriate consideration of variability in setting MACT minimum levels of stringency (floors); (4) the prohibition on setting "no control" floors; and (5) the legality of "work practice" standards. For the first four of these issues, the court stated that previous MACT decisions controlled the outcome.

Even though the brick kilns at issue relied on clay from nearby quarries, the D.C. Circuit held that EPA erred in not considering possible substitutions of "cleaner" clay.<sup>4</sup> The court never mentioned its 2004 decision upholding EPA's primary copper smelter MACT standards; in that case,<sup>5</sup> then-Judge John G. Roberts wrote for the court that EPA was correct in concluding that "the substitution of cleaner ore stocks was not, in any event, a feasible basis on which to set emission standards."<sup>6</sup> That opinion points out that "[m]etallic impurity levels are variable and unpredictable both from mine to mine and within specific ore deposits . . . thereby precluding ore-switching as a predictable and consistent control strategy."<sup>7</sup> But while the brick and ceramics MACT decision involved clay-switching in terms of establishing the MACT floors, the copper-smelting decision<sup>8</sup>

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1. 42 U.S.C. §7412(d), ELR STAT. CAA §112(d). EPA has spent approximately 15 years issuing such maximum achievable control technology (MACT) standards under CAA §112(d).

2. *Id.* §7411, ELR STAT. CAA §111.

3. 479 F.3d 875, 37 ELR 20064 (D.C. Cir. 2007) (per curiam).

4. *Id.* at 882-83.

5. *Sierra Club v. EPA*, 353 F.3d 976, 34 ELR 20014 (D.C. Cir. 2004).

6. *Id.* at 988.

7. *Id.*

8. *Id.* at 976.

concerned EPA's failure to consider ore-switching in contemplating "beyond-the-floor" MACT standards, i.e., standards more stringent than the floor levels. In the Brick MACT decision, the court held that a purely technology-based approach, in which EPA relied on end-of-process controls without considering inputs to the industrial process "would satisfy the Clean Air Act 'if pollution control technology were the *only* factor determining emission levels of that HAP.'"<sup>9</sup> Because EPA relied on such a pollution control technology approach in setting the standards for brick kilns, the court held them to be invalid.

Another part of the Brick MACT decision shows the reluctance of the court to take into account feasibility and real-world conditions in reviewing the standards. The court noted that EPA had proposed existing source standards for the large tunnel brick kiln category based upon technologies used by the median of the top 12% of sources in that category. Many industry officials said they would be unable to retrofit with these technologies without affecting production. For example, numerous industry representatives said that kilns are unable to be retrofitted with wet scrubbers due to a lack of sewer access to treat wastewater from the device. As a result, EPA excluded these best-performing technologies from its ranking and set the floor based on a technology that was not as effective. EPA argued it had "reasonably construe[d] the term 'best performing' . . . to allow it to consider whether retrofitting kilns with a particular pollution control technology is technically feasible."<sup>10</sup> The court rejected EPA's argument. It held that the existing source floor language in CAA §112(d)(3) states that floors are to be based upon the emission level actually "achieved" by the best-performing sources. This level of control, and not that which is merely "achievable" by sources throughout the category, is what must be used to set the floors.<sup>11</sup>

The D.C. Circuit also held that for several subcategories of sources, EPA had improperly calculated variability in emissions. EPA considered the worst-performing sources using MACT when taking into account variability to set the floors for new large- and small-tunnel brick and ceramic kilns, as well as for existing large-tunnel brick kilns. The court stated that "although EPA has some evidence that the best performers experience variability, it has failed to show that the emission levels achieved by the worst performers using a given pollution control device actually predict the range of emission levels achieved by the best performers using that device."<sup>12</sup> It therefore held the standards to be illegal.<sup>13</sup>

In the rulemaking, EPA failed to set floors for several subcategories of brick kilns because it found that the best-performing sources did not use any control technology. The D.C. Circuit held that its previous ruling in a case remanding the Portland cement MACT standards did not allow EPA to "avoid setting standards for HAPs not controlled with technology."<sup>14</sup> Note that here EPA specifically found that

"changes in non-technology factors were not 'appropriate' or 'viable.'" The court stated: "Other than again claiming that it has no obligation to set floors unless sources take some deliberate action to control emissions, EPA has failed to offer any reason for distinguishing what it did here from what we invalidated in *National Lime II*."<sup>15</sup> EPA therefore is faced with the task of setting standards based on the performance of facilities whose reduction of hazardous air pollutant (HAP) emissions may not bear any relation to pollution control measures the plants have undertaken.

Finally, the court also made it difficult to promulgate "work practice" standards under CAA §112. In some cases, such standards may be the most practical way to reduce emissions. Work practice standards are authorized by CAA §112(h)(1), which provides that "if it is not feasible in the judgment of the [EPA] Administrator to prescribe or enforce an emission standard . . . , the Administrator may, in lieu thereof, promulgate a design, equipment, work practice, or operational standard." As the Brick MACT decision explains, CAA §112(h)(2) goes on to state that it is "not feasible" to set an emission standard when "the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations."<sup>16</sup>

The court seized on this language about the impracticality of measurement methodology in vacating the work practice standards for certain types of ceramic kilns (which consisted of burning clean fuels). EPA argued that it was not feasible to adopt true emission standards because the kilns do not use pollution control devices and cannot feasibly substitute clays. EPA also contended that setting an actual emission floor "based on the emission levels achieved by the use of clean-burning fuels was not feasible given the absence of data necessary to make this calculation."<sup>17</sup> The court held that this was not enough because EPA only said that it lacked emissions data from the ceramic kilns but never determined that measuring emissions from them would be impracticable. The court concluded that "EPA thus had no basis under [§ 112(h)] for using work practice standards."<sup>18</sup>

For the above reasons, the court vacated all the air toxics standards. (For the effect of vacatur—how it triggers obligations under CAA §112(j)—see Part I.D. below.) The court's impatience with EPA was evident by its stern warning to the Agency at the end of the opinion:

If the Environmental Protection Agency disagrees with the Clean Air Act's requirements for setting emissions standards, it should take its concerns to Congress. If EPA disagrees with this court's interpretation of the Clean Air Act, it should seek rehearing en banc or file a petition for a writ of certiorari. In the meantime, it must obey the Clean Air Act as written by Congress and interpreted by this court.<sup>19</sup>

The decision has had ripple effects, with EPA deciding to revisit certain MACT standards due to the D.C. Circuit's hold-

9. *Sierra Club*, 479 F.3d at 882.

10. *Id.* at 880.

11. *Id.*

12. *Id.* at 882.

13. *Id.*

14. *Id.* at 883 (quoting *National Lime Ass'n v. EPA*, 233 F.3d 625, 634, 31 ELR 20375 (D.C. Cir. 2000) (referred to as *National Lime II*)).

15. *Id.*

16. 42 U.S.C. §7412(h)(2), ELR STAT. CAA §112(h)(2).

17. *Sierra Club*, 479 F.3d at 884.

18. *Id.*

19. *Id.*

ings in the case.<sup>20</sup> Thus, in some cases EPA must rethink its way of designing standards to control HAP emissions.

### *B. Industrial Boiler MACT and Commercial Industrial Solid Waste Incineration MACT Definitions Decision*

Less than three months after the Brick MACT decision, in *Natural Resources Defense Council, Inc. v. U.S. Environmental Protection Agency (NRDC)*,<sup>21</sup> the D.C. Circuit handed EPA another loss in consolidated cases that addressed two rulemakings: (1) the MACT standards for industrial boilers and process heaters (industrial boiler MACT); and (2) a rule containing definitions for the commercial industrial solid waste incineration (CISWI) MACT standards under CAA §129.<sup>22</sup> Because its vacatur of the CISWI definitions rule resulted in a change of the scope of the industrial boiler MACT category, the court also vacated the industrial boiler MACT standards, reasoning that the calculation of the floors necessarily would be different because many boilers that EPA regulated under CAA §112 should be regulated under CAA §129 instead. In light of the Brick MACT decision, EPA requested voluntary vacatur of the industrial boiler MACT standards; the lack of standards for certain subcategories clearly would not stand under the Brick MACT holding. The court, however, did not need to reach that issue because it vacated the standards for the reasons described immediately above.

Nor did the court reach another important question on the industrial boiler side of the case—whether EPA erred in allowing facilities and permitting authorities to calculate health-based and case-specific alternative MACT standards for hydrogen chloride (HCl). Under CAA §112(d)(4), for “pollutants for which a health threshold has been established,” EPA may consider that threshold level, with an ample margin of safety, when establishing MACT standards. EPA considers HCl to be a “threshold pollutant,” a finding disputed by environmentalists. The Agency therefore reasoned that facilities could utilize “look-up tables” or modeling to demonstrate a facility-specific safe level with an ample margin of safety. In addition to disputing that HCl is a threshold pollutant, environmental groups continue to contend that this mechanism is not permissible under CAA §112(d)(4).

Regarding the CISWI definitions, EPA had established a definition of “commercial or industrial waste” that stated that materials burned for thermal energy recovery were not to be included within the definition’s scope. As a result, a facility that burned waste for energy recovery was not defined as a “solid waste incineration unit” under §129 and therefore would be regulated under §112(d) instead.<sup>23</sup> The court rejected this argument, finding that the statutory definition of “solid waste incineration unit” plainly included any distinct operating unit “which combusts *any* solid waste.”<sup>24</sup> Accordingly, the court vacated the CISWI definitions in addition to the boiler MACT standards.

### *C. Plywood and Composite Wood Products MACT Decision*

Only 11 days following the industrial boiler MACT and CISWI definitions rule, in another *Natural Resources Defense Council, Inc. v. U.S. Environmental Protection Agency*<sup>25</sup> case, the D.C. Circuit vacated and remanded to EPA portions of MACT standards regulating the processing of plywood and composite wood products (PCWPs).<sup>26</sup> EPA took two actions that the court found to be unlawful. First, the court rejected EPA’s establishment of a “low-risk subcategory” for sources it determined provided minimal risk to human health. Second, it determined EPA’s extension of a compliance period beyond three years to be illegal under the CAA. The D.C. Circuit also rejected the industry intervenors’ challenge to the environmental groups’ Article III standing, as well as the claim by Louisiana-Pacific Corporation that EPA acted in an arbitrary and capricious manner when it failed to establish a separate subcategory for a particular type of manufacturing process.

EPA argued that it had authority to create a low-risk subcategory—and not regulate sources in that grouping—under CAA §112(c)(9)(B). That provision provides that EPA “may delete any source category” from the list of categories if the agency makes specified low-risk findings for carcinogens and non-carcinogens emitted by sources in that category. EPA argued that this allowance extended to subcategories, so that sources in that subcategory would not be subject to MACT standards. The court rejected EPA’s theory, holding that “the risk-based exemption for a subcategory [is] contrary to the plain language of the statute.”<sup>27</sup>

In 2006, EPA extended by one year the original three-year compliance date for existing sources subject to the PCWP MACT standards issued in 2004. The Agency reasoned that in 2006 it made substantial changes to the rule. Thus, EPA argued that it was not bound by the outside compliance period of three years that is specified in CAA §112(i)(3)(A). The court disagreed, pointing out that EPA did not actually revise the standards in 2006, but only changed other aspects of the earlier rule.<sup>28</sup> Thus, the court vacated the low-risk category and the extension of the compliance period.<sup>29</sup>

### *D. Effect of Vacatur of Standards*

Under CAA §112(j), the so-called MACT hammer provision, when EPA has not issued MACT standards within 18 months after the statutory due date for a particular MACT standard, a state-permitting authority that has an approved CAA Title V permit program is to make a “case-by-case” MACT determination for the affected source at the facility.<sup>30</sup> This Article discusses the effect of vacatur for the industrial boiler MACT standards, but the same logic would apply to the brick MACT and vacated portions of the PCWP

20. See, e.g., National Emission Standards for Hazardous Air Pollutants: Standards for Hazardous Waste Combustors; Solicitation of Comment on Legal Analysis, 72 Fed. Reg. 54875 (Sept. 27, 2007).

21. 489 F.3d 1250, 37 ELR 20135 (D.C. Cir. 2007).

22. 42 U.S.C. §7429, ELR STAT. CAA §129.

23. *Id.* §7429(g), ELR STAT. CAA §129(g).

24. *NRDC*, 489 F.3d at 1257-58 (citing CAA §129(g)(1) (emphasis added)).

25. 489 F.3d 1364, 37 ELR 20146 (2007).

26. *Id.*

27. *Id.* at 1372.

28. *Id.* at 1373-74.

29. *Id.* at 1374-75.

30. The provision is called the “MACT hammer” because the case-by-case MACT determination requirement is supposed to be triggered automatically when EPA fails to issue a MACT standard; the hammer is said to fall.

standards, and also the vacatur of the Clean Air Mercury Rule (CAMR) discussed in Part III. Although industry has argued that the §112(j) requirements should not be triggered when a court has issued standards (even though the court has vacated those standards), EPA takes the position that the mandates are in fact in place upon vacatur.

Under EPA's §112(j) MACT hammer rules, the facility is supposed to first submit a "Part 1" application that does not contain much detail.<sup>31</sup> Later, a "Part 2" application with far more detail—including recommended emission limitations—is due.<sup>32</sup> In its prior rules, EPA specified an April 28, 2004, deadline for the Part 2 application for industrial boilers.<sup>33</sup> The question now becomes what EPA should require since the industrial boiler standards are vacated, and if it requires submission of the Part 1 and Part 2 applications, by what date should those applications be due now that the deadlines have already passed?

EPA Headquarters has given only verbal guidance to its regional offices and states on the issue. The Agency decided that the closest analogue that it could find to the current situation is found in 40 C.F.R. §63.52(a)(2), which governs the situation where a facility has not submitted a Part 1 application in a timely manner. This provision requires a facility to submit a Part 1 application within 30 days after notification by the state Title V permitting authority. EPA plans to use this same 30-day period in the current situation. Thus, within 30 days of notification by the states in which a company operates boilers, the Part 1 applications would be due. Part 2 applications would be due within 60 days after the submission of the Part 1 application, according to EPA.

The state of Illinois reportedly has pressed for these applications, while other states have not. A clear reason for many states not acting is that promulgating case-by-case MACT standards would be a very time-consuming task for states to carry out on their own. Thus, the National Association of Clean Air Agencies (NACAA)—the group of state and local air regulators formerly known as the State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Control Officials (STAPPA/ALAPCO)—has taken steps to draft model standards that could be used by all the state and local agencies. The NACAA also indicated that it would work with environmental groups and air pollution control companies throughout the process.<sup>34</sup>

## II. Residual Risk Determinations and Technology Reviews of MACT Standards

### A. Residual Risk Determinations and Technology Reviews

Under the "residual risk" provision found in CAA §112(f), eight years following the promulgation of a MACT standard, EPA is required to determine if emissions from sources in the category pose an unreasonable risk to human health and the environment. In doing so, it is to ensure that the MACT standards or further emission limitations provide an

"ample margin of safety" to protect human health. In addition, §112(d)(6) requires that every eight years EPA must "review and revise as necessary (taking into account developments in practices, processes, and control technologies) emission standards issued previously under §112(d)." EPA refers to this latter review as the "technology review," and has been combining its efforts to propose and issue the two reviews at the same time. EPA refers to this as the risk and technology review (RTR).

In March 1999, EPA published its *Residual Report to Congress*.<sup>35</sup> In that report, EPA described the process for multi-pathway risk assessments to judge whether additional emissions reductions are required after the imposition of MACT. The document outlines EPA's approach to making its residual risk determinations—a process that as described below, has been challenged by environmental groups.

The Agency is significantly behind in issuing its RTRs, but it completed the process for eight source categories between 2005 and 2007; these are the sources which EPA refers to as part of its "RTR Phase I Project."<sup>36</sup> These categories include coke ovens, dry cleaning, industrial cooling towers, the hazardous organic NESHAP (HON), gasoline distribution, ethylene oxide sterilizers, magnetic tap, and halogenated solvents. EPA generally has not required additional emission limitations for these source categories. The Phase II sources are further divided into three groups. EPA has stated that it "plans to address residual risk and perform a technology review for several source categories in one combined effort."<sup>37</sup> For the Phase II, Group 2 sources, the advanced notice of proposed rulemaking (ANPRM) sought comment on emissions and emission release parameters (such as stack heights and exit velocity) for 22 industry source categories. EPA has used its February 2006 version of the national emissions inventory (NEI), updated with facility-specific data that it collected. EPA says that it also gathered data for Phase II, Group 1 sources during the comment period for this ANPRM.

For the Group 2 sources, EPA hopes to issue a proposal in 2008. For the Group 3 sources, the Agency is planning to issue an ANPRM in 2008.<sup>38</sup>

Environmental groups are challenging three of the Phase I determinations—dry cleaning, the HON, and halogenated solvents. The halogenated solvents RTR is currently under administrative reconsideration. In the dry cleaning RTR challenge, briefing began in December 2007. For the HON RTR challenge, NRDC oral argument was heard on April 10, 2008.<sup>39</sup>

The challenge to the HON RTR raises basic issues concerning both the residual risk determinations and the technology reviews, as well as industry-specific data issues. CAA §112(f) is not very clear as to the degree of risk allowed for exposure to carcinogens under the residual risk standards. EPA states that §112(f)(2)(A) and (B) provide

31. See 40 C.F.R. §63.53(a) (2005).

32. *Id.* §63.53(b).

33. See *id.* §63.56, tbl. 1.

34. See *States to Draft Model Boiler MACT After Court Vacates EPA Rule*, INSIDE EPA, Aug. 8, 2007.

35. U.S. EPA, RESIDUAL RISK REPORT TO CONGRESS (1999) (EPA-453/RR99-001), available at [http://www.epa.gov/ttn/oarpg/t3/reports/risk\\_rep.pdf](http://www.epa.gov/ttn/oarpg/t3/reports/risk_rep.pdf).

36. See U.S. EPA, *Risk and Technology Review*, <http://www.epa.gov/ttn/atw/rrisk/rtrpg.html> (last visited on May 6, 2008).

37. Advanced Notice of Proposed Rulemaking for Phase II, Group 2 Sources, 72 Fed. Reg. 14734 (Mar. 29, 2007).

38. *Id.*

39. Natural Resources Defense Council v. EPA, No. 07-1053 (D.C. Cir. Apr. 10, 2008) (oral argument).

that the analysis is to be conducted under the process followed in the 1989 benzene national emissions standards for hazardous air pollutant (NESHAP).<sup>40</sup> In that rulemaking and its residual risk rules to date, EPA used a process in which it first calculated a safe level on a case-by-case basis considering multiple factors, but with a priority on cancer risk of 1 in 10,000 to 1 in 1 million for the maximum exposed individual over a 70-year lifetime. In a second step of the process—to determine whether there is an “ample margin of safety”—EPA would be able to consider costs. NRDC points to other language in § 112(f)(2)(A) suggesting that the cancer risk should never exceed one in one million for such an individual. Thus, the D.C. Circuit will decide between these two interpretations.

NRDC’s second broad challenge in the HON RTR case concerns the requirement for conducting technology reviews every eight years. EPA has taken the position that in carrying out the § 112(d)(6) technology reviews, it need not calculate new MACT “floors” following the requirements of § 112(d)(3). NRDC contends that these floor mandates in § 112(d)(3) apply not only to the original MACT standards promulgated for a source category, but also to the eight-year review process. This would result in a continual “ratcheting down” of the MACT standards because the floors almost certainly would become more stringent with each eight-year review. Once again, the D.C. Circuit will decide this important question, which will have a major impact on the stringency of the standards following EPA’s MACT technology reviews.

### B. Total Facility Low-Risk Determination

EPA has discussed plans to promulgate a total facility low-risk demonstration (TFLRD) rule. Although the Agency has not yet issued a proposal in this much-delayed rulemaking, in 2005 it outlined its basic plan for the proposal. To escape requirements under a residual risk rulemaking for the applicable source category, the facility could conduct a total facility risk assessment that includes all relevant HAPs. EPA has stated that “[l]ow risk facilities would satisfy all of their residual risk requirements by demonstrating compliance with the TFLRD approach.”<sup>41</sup>

If the facility learns that it meets the low-risk criteria defined in the upcoming rule, it would submit its risk assessment to EPA and the permitting authority. Under its plans in 2005, the low-risk criteria would be a maximum cancer risk less than or equal to 1 in 100,000, all non-cancer hazard index values less than or equal to 1, and all ecological hazard quotients less than or equal to 1. Assuming that the permitting authority approves the company analysis, adjustments to the facility’s requirements would be made through the Title V permitting process. Subsequent changes at the facility would trigger a reevaluation.

### III. Vacatur of EPA’s CAMR

Electric-generating units (EGUs) are by far the largest emitters of mercury emissions in the country.<sup>42</sup> When Congress enacted the 1990 CAA Amendments, it required EPA to report to it on HAP emissions from EGUs, and to set forth alternative control strategies for those emissions that might warrant regulation under CAA § 112.<sup>43</sup> EPA completed this *Report to Congress* in 1998.<sup>44</sup> The Agency then made a determination in December 2000 that it was “appropriate and necessary” to regulate coal- and oil-fired units under § 112,<sup>45</sup> and found that the mercury emissions pose significant hazards to public health and the environment.<sup>46</sup> Accordingly, EPA formally added the category for coal- and oil-fired EGUs to the list of source categories in CAA § 112(c).<sup>47</sup>

The Bush Administration, however, revisited this conclusion made in the waning days of the Clinton Administration. In early 2004, EPA proposed two alternatives to control emissions from coal- and oil-fired EGUs. The first would control such units under the MACT provisions of § 112. The second alternative would remove EGUs from the list of source categories under CAA § 112(c), and regulate the sources under the new source performance standards (NSPS) provisions in § 111 instead.<sup>48</sup> Regulation under the NSPS could be less stringent because there are no minimum levels of stringency called for under § 111, while regulation under § 112 requires that such floors be established.

In March 2005, EPA chose to regulate coal-fired EGUs under § 111, and thus removed the units from its air toxics source category list. In doing so, the Agency concluded that regulation under § 112 was no longer “appropriate” nor “necessary.”<sup>49</sup> Shortly afterward, the Agency issued § 111 emission standards and guidelines for the sources, and created a voluntary “cap-and-trade” program for new and existing coal-fired EGUs.<sup>50</sup> EPA called these standards and cap-and-trade program its CAMR.

A number of states and environmental groups promptly challenged EPA’s action by filing a petition for review in the

40. National Emission Standards for Hazardous Air Pollutants: Benzene Emissions From Maleic Anhydride Plants, Ethylbenzene/Styrene Plants, Benzene Storage Vessels, Benzene Equipment Leaks, and Coke By-Product Recovery Plants, 54 Fed. Reg. 38044 (Sept. 14, 1989).

41. EPA Semiannual Regulatory Agenda, 72 Fed. Reg. 23156, 23194 (Apr. 30, 2007).

42. See U.S. EPA, ROADMAP FOR MERCURY 22, tbl. 1 (2006) (EPA-HQ-OPPT-2005-0013), available at <http://www.epa.gov/mercury/pdfs/FINAL-Mercury-Roadmap-6-29.pdf>.

43. 42 U.S.C. § 7412(n)(1)(A), ELR STAT. CAA § 112(n)(1)(A).

44. OFFICE OF AIR QUALITY PLANNING & STANDARDS, U.S. EPA, STUDY OF HAZARDOUS AIR POLLUTANT EMISSIONS FROM ELECTRIC UTILITY STEAM-GENERATING UNITS—FINAL REPORT TO CONGRESS (1998), available at <http://www.epa.gov/ttn/atw/combust/ultitox/eurtc1.pdf>.

45. 42 U.S.C. § 7412(n)(1)(A), ELR STAT. CAA § 112(n)(1)(A).

46. Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam-Generating Units, 65 Fed. Reg. 79825 (Dec. 20, 2000).

47. EPA National Emissions Standards for Hazardous Air Pollutants: Revision of Source Category List Under Section 112 of the Clean Air Act, 67 Fed. Reg. 6521, 6522-24 (Feb. 12, 2002).

48. 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, 69 Fed. Reg. 4652, 4659-61, 4683, 4689 (Jan. 30, 2004).

49. Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam-Generating Units and Removal of Coal- and Oil-Fired Electric Utility Steam-Generating Units From the Section 112(c) List, 70 Fed. Reg. 15994 (Mar. 29, 2005).

50. Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam-Generating Units, 70 Fed. Reg. 28606 (May 18, 2005).

D.C. Circuit. The petitioners argued that EPA's delisting was contrary to the clear language of CAA §112(c)(9) because EPA never made the necessary findings under that provision for removing a source category from the §112(c) list of categories. They also contended that EPA's action was arbitrary and capricious. EPA argued that for EGUs it was not bound by the criteria stated in §112(c)(9) and that it had inherent authority under administrative law to reverse its earlier action to list the category.

In a *Chevron* step-one analysis, the court held that EPA's delisting action was contrary to the clear language of CAA §112(c)(9).<sup>51</sup> It rejected all of EPA's arguments, and stated that one of EPA's contentions "deploys the logic of the Queen of Hearts, substituting EPA's desires for the plain text of section 112(c)(9)."<sup>52</sup> The D.C. Circuit therefore vacated EPA's delisting rule. Because there was no basis for the CAMR either, the court vacated those regulations as well.<sup>53</sup> Environmentalists have since argued that the CAA §112(j) "MACT hammer" described above has now fallen, given the court's vacatur of the §111 standards and the overdue date for promulgating MACT standards for EGUs. That would mean EGUs would need to undergo "case-by-case" MACT determinations.<sup>54</sup>

#### IV. Area Source Standards

EPA has also been issuing technology-based standards for "area sources," which are defined in CAA §112(a)(2) as facilities that are not "major sources."<sup>55</sup> In a number of MACT standards over the years, EPA has used its discretion to identify area source categories that it believes pose "a threat of adverse effects to human health or the environment."<sup>56</sup> But EPA also has a mandatory duty to promulgate either MACT or generally available control technology (GACT) standards for certain area sources.

51. *New Jersey v. EPA*, Nos. 05-1097 et al., 2008 App. LEXIS 2797, at \*6, 38 ELR 20046 (D.C. Cir. Feb. 8, 2008). For more information on the *Chevron* case, see *Chevron, U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837, 14 ELR 20507 (1984).

52. *Id.*

53. *Id.* at \*7.

54. See *Activists Move to Halt, Reverse Plant Permits in Wake of Mercury Ruling*, INSIDE EPA, Feb. 29, 2008; *Court Order Opens Power Plants to Mercury Emissions Regulations*, Daily Env't Rep. (BNA), Mar. 20, 2008.

55. A "major source" is a facility that on a fence-line-to-fence-line basis, has the potential to emit 10 tons per year (TPY) of any HAP, or 2,225 tpy of all HAPs in the aggregate. 42 U.S.C. §7412(a)(2), CAA §112(a)(2).

56. 42 U.S.C. §7412(c)(3), ELR STAT. CAA §112(c)(3).

Section 112(k)(3) and the second sentence of §112(c)(3) require that EPA produce a list of the 30 HAPs that pose the greatest threat to public health in the largest number of urban areas. EPA then is required to "ensure that area sources representing 90 percent of the area source emissions" for those pollutants are regulated under §112(d). Again, these standards can be either MACT or GACT standards. The major difference is that for GACT standards EPA does not set floors, i.e., minimum levels of stringency.<sup>57</sup> EPA also need not conduct a §112(c)(6) residual risk analysis for area sources controlled by GACT standards.

In 1999, EPA published (and subsequently revised) its list of the source categories to be regulated under this area source program for urban areas. The Agency was delinquent in publishing the area source standards, however, and the Sierra Club brought a suit to compel EPA to issue the standards by certain deadlines. In 2006, Judge Paul Friedman of the U.S. District Court for the District of Columbia granted the Sierra Club's motion for summary judgment and issued an order setting a schedule.<sup>58</sup> The order specified a series of deadlines between December 15, 2006 and June 15, 2009. EPA is required to promulgate a specific number of area source standards by each of the dates provided in the order. EPA now has issued a number of the area source standards, promulgating them under the GACT authority in CAA §112(d)(5).<sup>59</sup> These GACT standards are less stringent than they would have been if EPA relied upon its MACT authority under CAA §112(d)(2) and (3).

#### V. Conclusion

Toward the end of the period for issuing air toxics MACT standards, EPA is confronted with several D.C. Circuit opinions finding the Agency's decisions on key aspects of those standards to be contrary to the CAA. EPA therefore in key respects must change its methodology for the development of the remaining standards. In the meantime, the Agency is promulgating numerous "area source" air toxics standards. It also has begun its residual risk and technology reviews for the MACT standards previously promulgated. With litigation underway on these more recent standards and reviews, it remains to be seen whether EPA fares better in the D.C. Circuit than it has in 2007 and early 2008.

57. *Id.* §7412(d)(5), ELR STAT. CAA §112(d)(5).

58. *Sierra Club v. Johnson*, Civ. No. 01-1537 (D.D.C. Mar. 31, 2006) (consent order).

59. See, e.g., *National Emission Standards for Hazardous Air Pollutants for Six Area Sources*, 72 Fed Reg. 38864 (July 16, 2007).