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**United States Court of Appeals**  
**FOR THE DISTRICT OF COLUMBIA CIRCUIT**

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Argued April 23, 2007

Decided June 19, 2007

No. 04-1323

NATURAL RESOURCES DEFENSE COUNCIL AND  
SIERRA CLUB,  
PETITIONERS

v.

ENVIRONMENTAL PROTECTION AGENCY AND  
STEPHEN L. JOHNSON, ADMINISTRATOR,  
ENVIRONMENTAL PROTECTION AGENCY,  
RESPONDENTS

AMERICAN FOREST AND PAPER ASSOCIATION INC., ET AL.,  
INTERVENORS

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Consolidated with  
Nos. 04-1325, 04-1328, 06-1140

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On Petitions for Review of an Order of the  
Environmental Protection Agency

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*James S. Pew* argued the cause for petitioners NRDC, et al.

With him on the briefs was *John D. Walke*. *Amanda C. Leiter* and *David G. McIntosh* entered appearances.

*Russell S. Frye* argued the cause and filed the briefs for petitioner Louisiana-Pacific Corporation.

*Thomas E. Starnes* and *L. Eden Burgess* were on the brief for *amici curiae* State and Territorial Air Pollution Program Administrators and Association of Local Air Pollution Control Officials in support of petitioners.

*David S. Gualtieri*, Attorney, U.S. Department of Justice, argued the cause for respondent. With him on the brief were *John C. Cruden*, Deputy Assistant Attorney General, *David Gunter*, Attorney, and *Michael W. Thrift*, Counsel, U.S. Environmental Protection Agency.

*Claudia M. O'Brien* argued the cause for industry intervenors in support of respondent. With her on the brief was *Cassandra Sturkie*. *Brock R. Landry*, *Guy J. Sternal*, *Paul H. Amundsen*, and *William F. Lane* entered appearances.

*Peter L. de la Cruz* was on the brief for *amicus curiae* Formaldehyde Council, Inc. in support of respondents.

Before: GINSBURG, *Chief Judge*, and ROGERS and GRIFFITH, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge* ROGERS.

ROGERS, *Circuit Judge*: These are consolidated petitions for review of two final rules promulgated by the Environmental Protection Agency in 2004 and 2006 under Section 112 of the Clean Air Act (“CAA”), 42 U.S.C. § 7412, to regulate hazardous air pollution from processing plywood and composite

wood products (“PCWP”).<sup>1</sup> PCWP sources use heat and pressure to bond wood material, usually with resin, to form a panel or other engineering product. The outputs from PCWP processes include veneer, particleboard, oriented strandboard, hardboard, fiberboard, medium density fiberboard, as well as other products. As a result of the PCWP process, at least six primary hazardous air pollutants (“HAPs”) are released into the air. HAPs are defined in the CAA as “pollutants which present, or may present . . . a threat of adverse human health effects . . . or adverse environmental effects whether through ambient concentrations, bioaccumulation, deposition, or otherwise.” 42 U.S.C. § 7412(b)(2).

The Environmental Petitioners—the Natural Resources Defense Counsel, the Sierra Club, and the Environmental Integrity Project (together, “NRDC”)— contend that EPA has failed to adhere to the statutory requirements to set emission standards for listed HAPs. They also contend that EPA exceeded its authority in creating a risk-based subcategory and in extending the deadline for complying with emission standards set by the 2004 Rule. Pursuant to EPA’s request following this court’s decision in *Sierra Club v. EPA*, 479 F.3d 875 (D.C. Cir. 2007), we vacate and remand the 2004 Rule insofar as it fails to set emission standards for listed HAPs; neither the NRDC nor industry intervenors object, although each seeks an additional remedy, which we will leave for EPA’s consideration. We hold that EPA lacked authority to create a

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<sup>1</sup> See National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products, 69 Fed. Reg. 45,944 (July 30, 2004) (“2004 Rule”); National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products; List of Hazardous Air Pollutants, Lesser Quantity Designations, Source Category List, 71 Fed. Reg. 8342 (Feb. 16, 2006) (“2006 Rule”).

low-risk subcategory and to extend the compliance deadline and therefore grant NRDC's petitions on those issues and vacate those provisions of the rules.

Louisiana-Pacific Corporation also petitions for review of the two rules. It contends that EPA was arbitrary and capricious in declining to create a separate subcategory for wet/wet hardboard presses and to establish a variance procedure. Finding no arbitrary or capricious action by EPA, we deny the petition.

## I.

The relevant statutory provisions and the regulatory background of the 2004 and 2006 Rules are as follows.

### A.

Until 1990, Section 112 of the CAA directed EPA to use health-risk-based regulations for air pollution. Thus, Congress directed EPA to establish risk-based air pollution standards that provided an "ample margin of safety to protect public health." 42 U.S.C. § 7412(b)(1)(B) (1990). In 1990, Congress determined that the risk-based approach had "worked poorly." *National Lime Ass'n v. EPA*, 233 F.3d 625, 633-34 (D.C. Cir. 2000). Over the course of twenty years, EPA had promulgated only seven standards. H.R. REP. NO. 101-490, pt. 1, at 151, *reprinted in 2 A LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1990*, at 3175 (1993) ("LEGISLATIVE HISTORY"). Concerned, then, that EPA had failed to adequately regulate toxic emissions, *see* S. REP. NO. 101-228 (1989), *reprinted in 5 LEGISLATIVE HISTORY, supra*, at 8338. Congress adopted the current version of Section 112 to require technology based standards in place of the previous risk-based standards. *See Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855, 857 (D.C. Cir. 2001). Additionally, EPA no longer had discretion

to set emission standards for individual sources, nor to set whatever standards EPA deemed adequate.

Section 112, as amended, provides that EPA “*shall* promulgate regulations establishing emission standards for each category or subcategory of major sources . . . [and that these] standards . . . *shall require* the *maximum* degree of reduction in emissions.” 42 U.S.C. § 7412(d)(1)-(2) (emphasis added). Section 112 thus mandates that EPA list and establish emission standards for each category and subcategory of “major sources” that emit one or more of over 100 HAPs. *Id.* § 7412(b), (c), (e). The standards “shall require the maximum degree of reduction in emissions” of HAPs that EPA, “taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing sources.” *Id.* § 7412(d)(1), (2). The standards for “major sources” of HAPs must reflect the “maximum reduction in emissions which can be achieved by application of [the] best available control technology.” S. REP. NO. 101-228, at 133, *reprinted in* 5 LEGISLATIVE HISTORY, *supra*, at 8473. Congress also specified the degree of control, namely, the maximum achievable control technology (“MACT”), which sets a floor for MACT emissions — a minimum degree of emissions reductions that HAP sources must achieve under the technology-based standards. 42 U.S.C. § 7412(d)(3). For new sources, the MACT floor “shall not be less stringent than the emission control that is achieved in practice by the best-controlled similar source, as determined by the [EPA],” *Id.* § 7412(d)(3); for existing sources, the MACT floor shall be no less stringent than “the average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emissions information).” *Id.* Congress also set the compliance date:

After the effective date of any emissions standard, limitation or regulation . . . the Administrator shall establish a compliance date or dates for each category or subcategory of existing sources, which shall provide for compliance as *expeditiously as practicable*, but in no event later than 3 years after the effective date of *such standard* . . . .

42 U.S.C. § 7412(i)(3)(A) (emphasis added).

Congress further envisioned that there would be circumstances where a “source category” could appropriately be exempted (“delisted”) from MACT emission standards. Subsection 112(c)(9)(B)(i) provides that:

(B) The Administrator may delete any source category from the list under this subsection, on petition of any person or on the Administrator’s own motion, whenever the Administrator makes the following determination or determinations, as applicable:

(i) In the case of hazardous air pollutants emitted by sources in the category that may result in cancer in humans, a determination that *no source in the category* (or group of sources in the case of area sources) emits such hazardous air pollutants in quantities which may cause a lifetime risk of cancer greater than one in one million to the individual in the population who is most exposed to emissions of such pollutants from the source (or group of sources in the case of area sources).

42 U.S.C. § 7412(c)(9)(B)(i) (emphasis added).

**B.**

The 2004 Rule regulates “total HAP” emissions from the process units within each PCWP source. 69 Fed. Reg. at 45,946, 45,949. In view of *Sierra Club v. EPA*, 294 F.3d 155, 161 (D.C. Cir. 2002), which held that EPA could not set a “no emission reduction” standard for existing sources for listed HAPs, we need not review how EPA established the MACT floors for a source other than to note that EPA determined that “the only way in which PCWP [sources could] currently limit HAP emissions” was through add-on controls. 69 Fed. Reg. at 45,968.

As relevant to the petitioners’ remaining challenges, the 2004 Rule created a PCWP “low risk” subcategory, pursuant to § 112(c)(9)(B), which included sources that met the statutory criteria and additional requirements, such as annual emissions testing and reporting, set forth in the 2004 and 2006 Rules. 69 Fed. Reg. 45,955; 71 Fed. Reg. 8344-49. Subject to acknowledged omissions, EPA determined that the sources in the low-risk subcategory did not emit carcinogens in excess of the statutory ceiling, namely, in amounts resulting in a lifetime cancer risk exceeding one in a million to the most-exposed individual; that they did not emit non-carcinogens in amounts exceeding a level adequate to provide an ample margin of safety to protect public health; and that no source emitted any HAP or combination of HAPs in amounts resulting in an adverse environmental effect as defined in subsection 112(a)(7). 69 Fed. Reg. at 45,946, 45,953-54. Where site specific data was unavailable, EPA used standards ten times more protective of human health to analyze model emissions data for potentially low-risk facilities. *Id.* at 45,954. Eight sources met the criteria initially and EPA contemplated that others also would be relieved of all emission reduction requirements upon EPA approval of their low-risk eligibility. *Id.*

The 2006 Rule, as relevant, reset the MACT standard compliance date from October 1, 2007 to October 1, 2008. The 2004 rule had set the earlier compliance date. After the NRDC requested reconsideration of the low-risk subcategory and the delisting of sources under the 2004 Rule, EPA proposed amendments to the 2004 Rule, which concerned such matters as the definition of “affected source,” “plywood and composite wood products manufacturing facility” (among others), procedures for the low-risk demonstration process, and other permitting and timing issues. 70 Fed. Reg. 44,012, 44,014 (July 29, 2005). After receiving comments, EPA concluded that the changes to the emission testing requirements in the 2004 Rule had caused many sources to postpone emissions tests necessary to demonstrate eligibility for the low-risk subcategory and to identify their MACT compliance options. 71 Fed. Reg. at 8357-58. Therefore, EPA determined to allow PCWP sources additional time to comply with what it characterized as “substantial” changes to the 2004 Rule. *Id.* at 8357.

## II.

We first address, as a threshold issue, industry intervenors’ challenge to the NRDC’s standing under Article III of the Constitution. Industry intervenors contend specifically that the NRDC failed to allege a sufficiently “concrete and particularized” or “actual and imminent” injury and thus failed to show an injury-in-fact. This contention fails.

The NRDC claims associational standing to represent their individual members. Consequently, it must demonstrate that at least one member would have standing under Article III to sue in his or her own right, that the interests it seeks to protect are germane to its purposes, and that neither the claim asserted nor the relief requested requires that an individual member participate in the lawsuit. *See Hunt v. Wash. State Apple Adver.*



*Comm'n*, 432 U.S. 333, 342-43 (1977); *Sierra Club v. EPA*, 292 F.3d 895, 898 (D.C. Cir. 2002). Such a member, therefore, must meet three-prong test set out in *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992), by showing (1) an injury in fact that is actual or imminent, not conjectural or hypothetical; (2) an injury that is fairly traceable to the EPA's challenged action; and (3) the likelihood that a favorable decision will redress the member's concerns. *Id.*

In *Friends of the Earth v. Laidlaw Environmental Services*, 528 U.S. 167, 183 (2000), the Supreme Court held that “environmental plaintiffs adequately allege injury in fact when they aver that they use the affected area and are persons ‘for whom the aesthetic and recreational values of the area will be lessened’ by the challenged activity.” Industry intervenors ignore this precedent. In *Laidlaw*, the affidavits referred to observations of pollution and alterations of behavior as a result of the risk of pollution in an affected area. 528 U.S. at 181-84. Two members of the petitioning organizations live near PCWP facilities that are exempt as low-risk facilities from all HAP controls. Holly Clark, a member of NRDC, states that she lives near the exempt facility in Rocklin, California. She monitors the air quality reports and on particularly polluted days she cuts back on her outdoor activities, including her gardening, and she does not drive her car. In the past 17 years she has seen the horizon become visibly smoggier; although she was once able to see the Sacramento skyline, she no longer can. Karen Kirkwood, a member of the Sierra Club, states that emissions from a nearby low-risk PCWP facility “diminish the enjoyment that [her] family . . . derive[s] from outside recreational activities, including gardening, walking, working with animals, and sitting on the back porch.” These are the kinds of harms that the Supreme Court in *Laidlaw* determined were sufficient to show injury-in-fact because the member-affiants use or live in areas affected by the PCWP sources, and are persons “‘for

whom the aesthetic and recreational values of the area [are] lessened' by the challenged activity.” 528 U.S. at 183.

Therefore, because NRDC members meet the *Lujan* test for standing, we reject industry intervenors' challenge and hold that the NRDC has standing to challenge the 2004 and 2006 rules.

### III.

In reviewing the challenges to the final rules, our review of EPA's interpretation of the Clean Air Act follows the familiar standard set out in *Chevron U.S.A. v. NRDC*, 467 U.S. 837 (1984). If Congress has directly spoken to the precise question at issue and the intent of Congress is clear, that is the end of the matter; the court, as well as EPA, must give effect to the unambiguously expressed intent of Congress. *Id.* at 842-43. If, however, the court determines that Congress has not directly addressed the precise question at issue, and the statute is silent or ambiguous, then the court must determine whether EPA's interpretation is a permissible construction of the statute. *Id.*

#### A.

Following the decision in *Sierra Club*, 479 F.3d 875, EPA requested a remand of the 2004 Rule to the extent it failed to establish emission standards for listed HAPs. In *Sierra Club*, the court held that EPA's failure to set floors for existing small tunnel brick kilns and existing and new periodic brick kilns violated CAA Section 112(d)(3), 42 U.S.C. § 7412(d)(3), noting that in *National Lime*, 233 F.3d at 633-34, the court had held unlawful EPA's "no control" emission floors for categories in which the best performers used no emission control technology. *Sierra Club*, 479 U.S. at 878. In the instant case, using the same rationale, the NRDC challenged EPA's failure to set emission standards for listed HAPs that PCWP plants emit. EPA declined to do so on the rationale that these HAPs are not

controlled with technology. *See* 68 Fed. Reg. 1276, 1285 (Jan. 9, 2003); 69 Fed. Reg. at 45,949 (Table 1); *id.* at 45,967-68. However, the fact that one form of control does not control emissions does not excuse EPA from finding other means to achieve that result. *National Lime*, 233 F.3d at 633-34.

### **B.**

The thrust of the NRDC challenge to EPA's establishment of a low-risk subcategory is based on the proposition that EPA cannot do an end-run around the statutory scheme enacted by Congress. First, the low-risk subcategory contravenes the plain text of subsections 112(c)(2) and (d)(1), which indicate that Congress intended EPA to create categories and subcategories as a step toward *establishing* emission standards. Thus, subsection 112(d)(1) provides that EPA "*shall* promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of hazardous air pollutants." 42 U.S.C. § 7412(d)(1). Hence, the NRDC maintains, Congress never intended EPA to create a category or subcategory "whose defining characteristic is that its members will never be subject to emission standards." Second, EPA's authority under Section 112(d)(1) to establish categories and subcategories for sources does not authorize it to ignore subsection 112(c)(2)'s requirement that EPA establish emission standards for the low-risk subcategory; otherwise, the NRDC contends, emissions would be allowed that Congress has expressly prohibited. Third, because Section 112 categories, "[t]o the extent practicable . . . shall be consistent with the list of source categories established pursuant to [Section 111]," 42 U.S.C. § 7412(c)(1), the NRDC contends that when EPA acts under Section 112(d)(4) to establish emission standards it should only be looking to "classes, types, and sizes" of sources, as mentioned in Section 112(d)(1). Fourth, the NRDC points to legislative history indicating that Congress did not intend EPA to base subcategories on risk. *See* House Debate (May 23,

1990), Comm. Print S. Prt. 103-38, *reprinted in* 2 LEGISLATIVE HISTORY, *supra*, at 2725.

EPA itself states in the 2004 Rule that “[a]t the time of the 1990 Amendments, Congress did not consider it necessary to provide express relief for additional groups such as low-risk PCWP facilities, beyond those defined by traditional category and subcategory criteria.” 69 Fed. Reg. at 45,990. Nonetheless EPA maintains its interpretation of its authority under subsection 112(c)(1) is reasonable because nothing in the CAA limits EPA’s authority to subcategorize as the NRDC suggests. Congress allowed EPA to establish categories and subcategories “as appropriate,” 42 U.S.C. § 7412(c)(1). Because emission levels from PCWP sources are so low as to be of negligible harm to human health and the environment, EPA maintains the PCWP category was particularly well suited to subcategorization based on risk, and that it stands to reason that EPA should eliminate unnecessary and costly regulatory controls. 69 Fed. Reg. at 45,985. Although finding no correlation between the facilities it identified as low-risk and the factors it had previously applied to subcategorize facilities, based on considerations such as technology, process, product, and emissions characteristics, 69 Fed. Reg. at 45,990-91, EPA maintains that its broad discretion allows it to consider other factors and that Congress recognized that in certain instances a risk-based approach can be appropriate.

That EPA may have broad subcategorization authority, however, does not authorize EPA to sidestep what Congress has plainly prohibited. Whatever factors EPA might properly consider for subcategorization, it has no authority to create a low-risk subcategory scheme that allows harmful emissions in a manner contrary to Congress’s statutory scheme. Section 112(c)(9)(B) provides that EPA may delete from its source list “any source *category*.” (emphasis added) Not only is the risk-

based exemption for a *subcategory* contrary to the plain language of the statute, but EPA also failed to make the required statutory determination that no source in the category, rather than in the low-risk subcategory, emits HAPs “in quantities which may cause a lifetime risk of cancer greater than one in one million to the individual in the population who is most exposed to emissions . . . .” 42 U.S.C. § 7412(c)(9)(B)(i). EPA responds that Congress used the words “category” and “subcategory” interchangeably, but fails to demonstrate that Congress did not mean what it said in subsection 112(c)(9)(B)(i). *See Engine Mfrs. Ass’n v. EPA*, 88 F.3d 1075, 1088-89 (D.C. Cir. 1996). While neither word is defined in the statute, the absence of a statutory definition does not render a word ambiguous. *SEC v. Goldstein*, 451 F.3d 873, 878 (D.C. Cir. 2006). The “words of the statute should be read in context, the statute’s place in the overall statutory scheme should be considered, and the problem Congress sought to solve should be taken into account” to determine whether Congress has foreclosed the agency’s interpretation. *PDK Labs. Inc. v. DEA*, 362 F.3d 786, 796 (D.C. Cir. 2004).

As a matter of the plain text, “subcategory” is a subset of “category,” as EPA has previously recognized. 64 Fed. Reg. at 56,494. Read in the context of subsection 112(c)(9), Congress’s use of the words suggests that they have different meanings; in Section 112 at various points Congress specified both “category” and “subcategory” alone, and also used the combined phrase “category or subcategory” where appropriate. Regardless of whether or not Congress may have used the two words interchangeably in other subsections—EPA cites subsections 112(e)(4) and (f)(2)(A)—does not necessarily show that in subsection 112(c)(9)(B), “as a matter of historical fact, Congress did not mean what it appears to have said, or that, as a matter of logic and statutory structure, it almost surely could not have meant it.” *New York v. EPA*, 443 F.3d 880, 889 (D.C.

Cir. 2006); *see also New York v. EPA*, 413 F.3d 3, 41 (D.C. Cir. 2005). As the NRDC point out, because subsection 112(c)(9) involves carcinogens, limiting delistings to source “categories,” as distinct from “subcategories,” accords with Congress’s tighter restrictions on carcinogenic HAPs. *See, e.g.*, 42 U.S.C. § 7412(f)(2)(A). By contrast, EPA’s interpretation would make the words redundant and one of them “mere surplusage,” which is inconsistent with a court’s duty to give meaning to each word used by Congress. *See, e.g., TRW Inc. v. Andrews*, 534 U.S. 19, 31 (2001).

Because EPA’s interpretation of Section 112(c)(9) as allowing it to exempt the risk-based subcategory is contrary to the plain language of the statute, EPA’s interpretation fails at *Chevron* step one.

### C.

In the 2006 Rule, EPA extended by one year the compliance date for the emission standards established in the 2004 Rule in light of what it characterized as “substantial” changes made in the 2006 Rule. 71 Fed. Reg. at 8357, 8372. Only the 2004 Rule, effective September 28, 2004, set the emissions standards for PCWPs. Consequently, the NRDC contends, under the plain language of the statute, the compliance date may be no later than October 1, 2007. We agree.

Subsection 112(i)(3)(A) provides, in relevant part, that:

After the effective date of any emissions standard, limitation or regulation . . . the Administrator shall establish a compliance date or dates for each category or subcategory of existing sources, which shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the effective date of

*such standard . . .*

42 U.S.C. § 7412(i)(3)(A) (emphasis added). Where Congress used the terms “emissions standard, limitation, or regulation” earlier in the subsection, but specified only “such standard” as the trigger for the three-year compliance period, Congress made clear that only the effective date of Section 112 emissions standards matters when determining the maximum compliance date. EPA’s policy argument that extensions of time for compliance should be allowed across the board whenever it determines that “substantial” changes and amendments have been made is not what Congress envisioned. Congress stated it wanted “expeditious[]” compliance, which is inconsistent with the notion that EPA has authority to “reset the compliance deadlines” for compliance with Section 112 standards anytime it adjusts reporting terms. It also addressed EPA’s concern by authorizing EPA to make source-by-source extensions under subsection 112(i)(3)(B), 42 U.S.C. § 7412(i)(3)(B), on which EPA does not rely.

EPA persists that the reference in subsection 112(i)(3)(A) to “limitation or regulation” recognizes that sources must comply with more than an emissions standard, namely, requirements for work practices, maintenance, reporting and monitoring, startup, shutdown, and malfunctions. This indicates, EPA maintains, that Congress authorized it to grant sources additional time to comply with the whole “regulation” and not just with the “emission standards.” 42 U.S.C. § 7412(i)(3)(A). EPA’s interpretation, however, is inconsistent with Congress’s policy as reflected in the plain language of subsection 112(i)(3)(A). Not only did Congress indicate it wanted “expeditious[]” compliance with emission standards, it set an outer limit of three years after emissions standards took effect and referred only to “such standard” for the compliance date trigger, and not to the limitations or regulations mentioned

earlier in the subsection. Further, Congress enumerated specific exceptions to the three-year maximum, which indicates that Congress has spoken on the question and has not provided EPA with authority under subsection 112(i)(3)(B) to extend the compliance date in the 2006 rule. *See also* 42 U.S.C. § 7412(i)(4), (6)-(8). “Where Congress explicitly enumerates certain exceptions to a general prohibition, additional exceptions are not to be implied, in the absence of a contrary legislative intent.” *TRW Inc.*, 534 U.S. at 28.

#### D.

Turning to the question of remedy, consistent with *Allied-Signal, Inc. v. United States Nuclear Regulatory Commission*, 988 F.2d 146, 150 (D.C. Cir. 1993), in the case of an inadequately supported rule, the decision whether to vacate depends on “the seriousness of the [rule’s] deficiencies (and thus the extent of doubt whether the agency chose correctly) and the disruptive consequences of an interim change that may itself be changed.” *Id.* at 150-51. *See, e.g., Sierra Club v. EPA*, 167 F.3d 658, 664 (D.C. Cir. 1999); *National Lime*, 233 F.3d at 635. As to the seriousness of the deficiencies in this case, because the CAA does not permit EPA to set a “no emission reduction” standard for listed HAPs, create a low-risk subcategory, or extend the deadline for sources to comply with the requirements of the 2004 Rule, EPA could not justify those choices by shoring up its reasoning on remand. The agency’s errors could not be more serious insofar as it acted unlawfully, which is more than sufficient reason to vacate the rules.

Vacatur would be disruptive if it set back achievement of the environmental protection required by the CAA. As the court explained in *Davis County Solid Waste Management v. EPA*, 108 F.3d 1454, 1458-59 (D.C. Cir. 1997), “the more equitable and appropriate course for this court to take is to retain the . . . emission guidelines . . . on remand” because



“vacating the guidelines [would] result in an eighteen month period in which greater . . . emissions [would] occur than would occur [if the court] remand[ed] for further rulemaking without vacating.” PCWP sources emit at least 19,000 tons per year of organic HAPs, including 330 tons of acrolein and 3,400 tons of formaldehyde; they also emit 50,000 tons of hydrocarbons and over 10,000 tons of deadly particulate matter. 69 Fed. Reg. at 45,956. Although the MACT floor standards in the 2004 Rule are inadequate to the extent emission standards are not set for all listed HAPs, the rules provide protection from the HAPs for which EPA did establish such standards.

However, vacatur of the challenged provisions will not adversely affect public health or the environment. By granting EPA’s motion for a partial vacatur and remand of those portions of the 2004 Rule setting “no emission reduction” floors for certain HAPs for PCWP plants, there is no adverse effect on environmental protection as these provisions provide none, as the NRDC points out. *See* Env’tl. Pet’rs’ Resp. to EPA’s Mot. for Voluntary Partial Vacatur and Remand at 1. By vacating the low risk subcategory and the compliance date extension, PCWP facilities will be subject to the other provisions of the rules, including the compliance date set in the 2004 Rule, resulting in greater protection to public health and the environment. Accordingly, we vacate the challenged provisions of the 2004 and 2006 Rules. We decline to set a two year limit on EPA’s proceedings on remand as the NRDC requests; mandamus affords a remedy for undue delay. We also decline to require EPA, as industry intervenors request, to provide affirmative relief raised in their post-brief and post-argument pleadings as these are matters for EPA’s evaluation in the first instance. *Cf. Oljato Chapter of Navajo Tribe v. Train*, 515 F.2d 654 (D.C. Cir. 1975).

#### IV.

Louisiana-Pacific Corporation (“L-P”) petitions for review of the 2004 and 2006 Rules based on EPA’s refusals to establish a separate subcategory for its presses and, alternatively, to provide a variance procedure. Essentially, L-P contends that EPA unjustifiably ignored key differences between L-P’s wet/wet press process, which requires an employee to remain in the press area when hardboard mats are created in order to prevent them from sticking together, and other press processes, which do not require human intervention, and can thus use a variety of controls, such as enclosing the press area, to comply with the emission standards set for the category under the 2004 Rule. Because Congress has vested EPA with subcategorization authority under Section 112(c)(1), and its exercise of that authority involves an expert determination, L-P carries a heavy burden to overcome deference to the agency’s articulated rational connection between the facts found and the choices made. *Am. Trucking Ass’ns, Inc. v. EPA*, 283 F.3d 355, 374 (D.C. Cir. 2002); *cf. Lignite Energy Council v. EPA*, 198 F.3d 930, 933 (D.C. Cir. 1999).

EPA followed the principle that PCWP equipment should be classified “according to its function,” 69 Fed. Reg at 45,948, and relied on three factors in placing the L-P facility in the same category as other PCWP facilities: (1) use of the same inputs to create its products—in particular, the same resins—as other PCWP facilities; (2) competition in the same markets as other PCWP facilities; and (3) similar levels of HAP emissions. Creating a subcategory for L-P would, EPA concluded, give L-P a competitive advantage over other facilities, *Summary of Public Comments and Responses* at 2-53 (Feb. 2004). L-P does not dispute that the three factors show similarity with other PCWP facilities. Rather L-P’s contends that it will experience greater costs in complying with the MACT floor. But cost is not a factor that EPA may permissibly consider in setting a MACT floor. *See National Lime*, 233 F.3d at 640. To the

extent that L-P maintains that it cannot comply with the MACT floor based on complete enclosure and capture of emissions because it cannot enclose its presses, L-P also relies on an incorrect premise that the MACT level of emissions reduction is invalid if it is based on control technology that a source cannot install. The 2004 Rule does not require a source to use any particular method to achieve compliance: if L-P cannot use enclosure and capture, it may utilize other compliance techniques. Hence, L-P fails to show that EPA was arbitrary or capricious in refusing to create a subcategory for it.

L-P's variance objection fares no better. Section 112(i) allows for a certain number of exceptions and compliance extensions, but none applies to L-P's situation, 42 U.S.C. § 7412(i)(3)-(6). The CAA also does not require EPA to allow a variance. The Clean Water Act cases on which L-P relies are inapposite because in those cases, the court held that EPA was authorized to establish categorical limitations by regulation but that, because the statute also appeared to require one set of limitations to be set source-by-source, "some allowance [must be] made for variations in individual plants." *E.I. duPont de Nemours & Co. v. Train*, 430 U.S. 112, 128 (1977). That rationale does not apply because Section 112(d)(1) explicitly requires regulation by category or subcategory.

Accordingly, we deny L-P's petition. We also decline to address its post-brief and post-argument request for affirmative relief. *Cf. Oljato*, 515 F.2d 654.