United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued November 19, 2014 Decided May 29, 2015

No. 12-1260

MEXICHEM SPECIALTY RESINS, INC.,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY AND GINA MCCARTHY,
RESPONDENTS

AIR ALLIANCE HOUSTON, ET AL.,
INTERVENORS

Consolidated with 12-1265, 12-1266, 12-1267

On Petitions for Review of Final Actions
of the United States Environmental Protection Agency

Douglas J. Behr and *Jean-Cyril Walker* argued the causes for Industry Petitioners. With them on the briefs were *David M. Friedland*, *Kristen H. Gladd*, *Marc D. Machlin*, and *Christopher D. Jensen.* *Eric P. Gotting* and *Peter L. de la Cruz* entered appearances.

Angeline Purdy, Attorney, U.S. Department of Justice, argued the cause for respondent. With her on the brief were

Sam Hirsch, Acting Assistant Attorney General, and *Mark Kataoka*, Counsel, U.S. Environmental Protection Agency.

Emma C. Cheuse argued the cause for respondent-intervenors. With her on the brief was *James S. Pew*.

Before: ROGERS, KAVANAUGH and PILLARD, *Circuit Judges*.

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

Opinion dissenting in part filed by *Circuit Judge* KAVANAUGH.

PILLARD, *Circuit Judge*: This case concerns the production of polyvinyl chloride (PVC), one of the world's most common and versatile plastics, used in everything from water pipes to credit cards. As is true of the making of so many good things, however, the less one knows, the better one sleeps. PVC production results in the emission of more than a dozen known or suspected carcinogens and other hazardous air pollutants, a miasma that includes the known carcinogens 1,3-butadiene, benzene, and vinyl chloride. *See Proposed PVC Rule*, 76 Fed. Reg. 29,528, 29,532 (May 20, 2011). Congress has charged the Environmental Protection Agency with the difficult task of protecting the health of the American public by ensuring that industry reduce to the greatest extent it can emissions into the atmosphere of carcinogens and similarly dangerous chemicals.

In 2012, EPA promulgated a Rule setting first-time-ever limits on the emission of most hazardous air pollutants from PVC production. Petitioners, PVC manufacturers, challenge the Rule. They contend that many of the Rule's emissions limits should be vacated on the grounds that EPA did not

follow required rulemaking procedures, used faulty data in setting some of the limits, and poorly designed certain aspects of the regulation. They also ask the court to set aside some of the Rule's monitoring and compliance requirements. Petitioners raised many of these objections for the first time in petitions for reconsideration with EPA that are awaiting resolution. The Clean Air Act therefore precludes the court from reviewing them now, and we decline Petitioners' request that we stay EPA's Rule pending the agency's completion of its reconsideration. As to those challenges to the Rule that are ready for our review, we hold that EPA acted reasonably and in accordance with the Clean Air Act. We therefore deny the petitions.

I.

The Clean Air Act requires EPA to promulgate regulations limiting the emission of hazardous air pollutants from "major sources" and "area sources." 42 U.S.C. § 7412(d)(1). Those pollutants are specified on a list of hazardous air pollutants Congress established in 1990 in an amendment to the Act.[1] 42 U.S.C. § 7412(b)(1); *see Nat'l Lime Ass'n v. EPA*, 233 F.3d 625, 628-29, 633-34 (D.C. Cir. 2000). For listed pollutants, EPA must set emissions standards in two steps: First EPA sets a baseline, or "MACT floor," derived from data about the cleanest-performing similar sources already in the market; and, second, EPA investigates methods that may not already be in use to discern

[1] The difference between major sources and area sources is size: A "major source" is a stationary source that has the potential to emit 10 tons per year of any single hazardous air pollutant or 25 tons per year of any combination of hazardous air pollutants, 42 U.S.C. § 7412(a)(1); any smaller stationary source is an "area source," *id*. § 7412(a)(2).

whether even more stringent, "beyond-the-floor" standards are achievable to further reduce emissions.[2] *See* 42 U.S.C. §§ 7412(d)(2), (d)(3); *Nat'l Lime*, 233 F.3d at 629, 634.

The Rule under review establishes limits on hazardous air pollutant emissions from major and area sources at various points in the PVC production process. *See PVC Rule*, 77 Fed. Reg. 22,848, 22,851-55 (Apr. 17, 2012); *id.* at 22,857-59 (summarizing major source emissions standards); *id.* at 22,862-63 (summarizing area source emissions standards). The Rule limits the concentration of hazardous air pollutants that may remain in PVC resins (the "stripped resins" limits), the concentration of hazardous air pollutants that can be present in exhaust vented into the atmosphere (the "process vent" limits), and the concentration of hazardous air pollutants that may be dissolved in wastewater (the "process wastewater" limits). *Proposed PVC Rule*, 76 Fed. Reg. at 29,531-35; *see also* 40 C.F.R. § 63.12005. The Rule also requires the installation of monitoring equipment and the implementation of testing policies and workplace practices, all of which are designed to ensure initial and continuous compliance with EPA's emissions limits. *See PVC Rule*, 77 Fed. Reg. at 22,859-62 (summarizing compliance requirements).

The Rule stems from Congress's 1990 amendments to the Clean Air Act. In those amendments, Congress (1) mandated that EPA regulate over one hundred specified hazardous air

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[2] "MACT" is short for "Maximum Achievable Control Technology." *Nat'l Lime*, 233 F.3d at 630. MACT floors are "floors" because they represent the least stringent emissions limits EPA may impose, "even though they in fact establish maximum emission levels" for manufacturers. *Id.* at 629.

pollutants, *Nat'l Lime*, 233 F.3d at 633, and (2) required EPA to review within ten years of the Act's amendment all of its preexisting emissions standards to ensure that they cover listed pollutants. 42 U.S.C. § 7412(q)(1); *see Mossville Envtl. Action Now v. EPA*, 370 F.3d 1232, 1236-37 (D.C. Cir. 2004). As of 1990, EPA already had a longstanding regulation limiting the emission of vinyl chloride, one of the hazardous air pollutants from PVC sources. 41 Fed. Reg. 46,560 (Oct. 21, 1976). Congress's amendments required EPA to revisit its pre-1990 vinyl chloride emissions standard and expand it to regulate all the newly listed hazardous air pollutants from PVC sources.

EPA got part of the way there. It promulgated a rule in 1992, the "HON Rule," that regulated emissions from the production of ethylene dichloride and vinyl chloride monomer, two inputs to PVC production.[3] *Mossville*, 370 F.3d at 1237. The HON Rule did not, however, regulate emissions arising from the production of PVC itself. *Id.* Because the HON Rule did not cover PVC production, EPA still needed to undertake another rulemaking to comply with Congress's mandate that it revisit and expand its earlier vinyl chloride regulation. *Id*. That second Rule is at issue here.

EPA began development in 1998 of a version of the Rule that it promulgated in 2002. *See* 67 Fed. Reg. 45,886, 45,889 (July 10, 2002). In that Rule, EPA readopted its pre-1990 limits for vinyl chloride emissions from PVC production, determining that those limits were a good estimate of the MACT floors for vinyl chloride. *Mossville*, 370 F.3d at 1237. In a challenge to the 2002 rule's lawfulness and rationality

[3] "HON" is short for "Hazardous Organic NESHAP." *See Mossville*, 370 F.3d at 1237. "NESHAP" is short for "National Emission Standards for Hazardous Air Pollutants." *Id.* at 1235.

under the Clean Air Act, we sustained EPA's judgment. *Id*. at 1234, 1237, 1242. We found the Rule flawed in part, however, for its failure to set limits on all of the remaining hazardous air pollutants the Act requires EPA to regulate. *Id.* at 1242-43. EPA argued that the same technologies that remove vinyl chloride from PVC emissions—"stripping, scrubbing, incineration"—reduce the emission of all hazardous air pollutants to a similar degree and that the emissions limit for vinyl chloride therefore could stand in as a "surrogate" for setting individual limits on the emission of other hazardous air pollutants. *Id*. at 1237. We found EPA's judgment on that point unsupported by the record and vacated and remanded the Rule for further explanation and reconsideration, as appropriate. *Id.* at 1243.

In 2009, EPA began issuing information requests to PVC manufacturers and otherwise gathering the data necessary to set MACT floors for non-vinyl chloride hazardous air pollutants from PVC production. EPA issued a proposed rule in 2011 and accepted comments for a period of two and a half months. *See Proposed PVC Rule*, 76 Fed. Reg. at 29,528; 76 Fed. Reg. 42,613 (July 19, 2011). After the close of the public comment period, PVC manufacturers continued to submit data to EPA, including data the manufacturers recorded from sampling and testing independently of what EPA's data requests required. In response to some of that new information, submitted after the comment period closed, EPA revised its Rule. EPA promulgated the Rule in April 2012. *See PVC Rule*, 77 Fed. Reg. 22,848. Industry Petitioners promptly petitioned EPA for reconsideration and sought judicial review, arguing that EPA had given Petitioners inadequate notice and opportunity to comment on EPA's post comment period revisions. EPA granted reconsideration on several of Petitioners' claims.

II.

Petitioners challenge three aspects of EPA's Rule. First, Petitioners challenge the Rule's limit on the concentration of organic hazardous air pollutants in process wastewater from existing major sources. Petitioners argue that EPA established that limit without providing adequate notice or opportunity to comment. They also argue that the limit is not a logical outgrowth of the proposed rule and that EPA based the limit on data that was incorrect and incomplete.[4]

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[4] On the eve of oral argument, EPA and Petitioners reached a settlement on EPA's Rule setting wastewater limits for area sources. They filed a joint unopposed motion to sever their challenge to that Rule and hold it in abeyance, which this court granted. *See Mexichem Specialty Resins, Inc. v. EPA*, No. 12-1260 (D.C. Cir. Dec. 17, 2014) (order granting joint unopposed motion to sever and hold in abeyance the challenge to the area source wastewater limit). The same emissions limit that governs wastewater from area sources also governs new major sources. That limit was based on a single data point that EPA acknowledges to be erroneous. *See* Resp. Br. 21, 35; *PVC Rule*, 77 Fed. Reg. at 22,854, 22,863. Neither EPA nor Intervenors oppose vacatur of that emissions limit. *See* Resp. Br. 35-36; Int. Br. 20, 33. The parties did not, however, move to sever and hold in abeyance the new major source wastewater emissions limit when they made their motion with respect to the area source emissions limit.

The court, however, is barred from vacating or staying the new major source wastewater limit. Petitioners failed to preserve their challenges to the wastewater emissions limits, including the new major source wastewater limit, and EPA did not waive its exhaustion defense. Petitioners were therefore required to show irreparable harm from the existence of the new major source wastewater limit to obtain a right to a stay or vacatur. Petitioners

Second, Petitioners challenge the Rule's limits on hazardous air pollutants emitted through process vents. EPA's proposed rule set limits applicable to all PVC process vents. During the rulemaking, however, PVC manufacturers notified EPA that some PVC manufacturers also discharge exhaust generated by other (non-PVC) processes through PVC process vents. *See PVC Rule*, 77 Fed. Reg. at 22,851. In response, EPA created a hybrid category in the final Rule—"PVC-combined" process vents—setting distinct emissions limits for process vents that comingle fumes from PVC and non-PVC sources. 40 C.F.R. § 63.12005; *see PVC Rule*, 77 Fed. Reg. at 22,865, 22,869. Petitioners raise a spate of objections to EPA's process vent limits and its decision to create the separate PVC-combined process vent category. They argue that EPA established the PVC-combined process vent limits without providing adequate notice or opportunity to comment. Petitioners claim they were denied an opportunity to provide EPA with supplemental data they believe is necessary to develop accurate PVC-combined process vent limits. Petitioners also maintain that the PVC-combined process vent emissions limits as applied to non-PVC source emissions when they discharge through a common vent with PVC source emissions unlawfully conflict with the limits that already apply to the non-PVC sources.

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have not, however, alleged or shown any harm arising from the existence of the limit. Indeed, the record contains no evidence that Petitioners have any plans to build new major sources. The Clean Air Act therefore prevents the court from staying or vacating the new major source wastewater limit.

Because the limits for area sources have been severed and the limits for new major sources are not properly before us, we limit our discussion in the text to the challenge to the existing major source limits.

Petitioners further contend that EPA's Rule irrationally fails to subcategorize process vents on the basis of their emissions control technology.

Third and finally, Petitioners challenge some of the Rule's continuous compliance and monitoring provisions. They argue that EPA's regulations governing when manufacturers may open "bypasses" and mandating the installation of monitoring equipment on "pressure relief devices" are arbitrary and capricious.[5] Petitioners also contend that regulations requiring that all bypasses be equipped with devices that detect when they are opened are "beyond-the-floor" MACT requirements that EPA unlawfully imposed without engaging in cost-benefit analysis as required by the Clean Air Act.

We deny the petitions. Petitioners did not raise procedural or merits objections to the wastewater limit during the notice and comment period. Petitioners also did not raise procedural objections to the PVC-combined process limit during the notice and comment period or challenge the

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[5] Bypasses, as their names suggest, allow fumes to bypass emissions controls and discharge directly into the atmosphere. *See* 40 C.F.R. § 63.12005 ("Bypass means diverting a process vent or closed vent system stream to the atmosphere such that it does not first pass through an emission control device.").

Pressure relief devices are safety devices that, in the process of relieving pressure, can release fumes directly into the atmosphere. *See* 40 C.F.R. § 63.12005 ("Pressure relief device means a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process component. A common pressure relief device is a spring-loaded pressure relief valve.").

rationality of the limit itself. The Clean Air Act prevents the court from considering those objections because Petitioners did not initially preserve them in the administrative process, and EPA is still considering them in a pending reconsideration proceeding. Given the absence of any showing of a likelihood of irreparable harm, we also decline to stay the effectiveness of the Rule until EPA completes its reconsideration.

We also reject each of Petitioners' claims that we are now able to review on its merits. EPA's PVC-combined process vent limits do not conflict with emissions limits applicable to other sources that discharge through PVC-combined process vents. EPA reasonably chose not to subcategorize process vents on the basis of their control technology. EPA's bypass and pressure relief device regulations are reasonable compliance and monitoring requirements, and Petitioners' argument that the bypass-detection regulation is a "beyond-the-floor" MACT requirement lacks merit.

III.

Several of Petitioners' challenges to the Rule are barred because they were not raised during the notice and comment period. *See* 42 U.S.C. § 7607(d)(7)(B). Under the Clean Air Act, "the only objections that may immediately be raised upon judicial review are those that were raised during the public comment period. Objections raised for the first time in a petition for reconsideration must await EPA's action on that petition." *Util. Air Regulatory Grp. v. EPA* (*UARG*), 744 F.3d 741, 747 (D.C. Cir. 2014). That bar extends both to substantive and procedural challenges and applies even if the objections could not have been raised during the comment period. *See* 42 U.S.C. § 7607(d)(9)(D)(ii); *UARG*, 744 F.3d

at 747; *Am. Petroleum Inst. v. Costle*, 665 F.2d 1176, 1192 (D.C. Cir. 1981). That requirement serves the important function of assuring that the agency has had an opportunity to explicate and evaluate objections before we review them. *See generally Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1065 (D.C. Cir. 2001); *Appalachian Power Co. v. EPA*, 135 F.3d 791, 799 n.14 (D.C. Cir. 1998).

Petitioners (1) did not raise their objections to the adequacy of notice and comment during the notice and comment period, (2) did not object that the final rule was not a logical outgrowth of the proposed rule, (3) did not object to the reasonableness of the PVC-combined process vent emissions limits, and (4) did not object to the wastewater limits. *See* Pet. Br. at 37, 48 (conceding failure to raise the foregoing objections during the notice and comment period). Those claims are therefore barred.

Petitioners assert that the court should reach the merits of their challenges to the Rule despite their failure to raise them during the notice and comment period. The Clean Air Act's otherwise categorical bar on judicial review of objections first raised in a petition for reconsideration may be excused only in limited circumstances. Our precedents recognize certain narrow exceptions to the exhaustion requirement, including where the agency completes reconsideration but refuses to acknowledge that it has done so, or where it unreasonably delays the completion of reconsideration. *See Sierra Club v. Thomas*, 828 F.2d 783, 792-96 (D.C. Cir. 1987); *see generally Randolph-Sheppard Vendors of Am. v. Weinberger*, 795 F.2d 90, 104-09 (D.C. Cir. 1986).[6]

[6] Congress has partly abrogated *Sierra Club v. Thomas*, but its analytical framework for determining whether EPA's delay was

Petitioners suggest that EPA has functionally denied their petitions for reconsideration. EPA granted the petitions for reconsideration in September 2012 and does not anticipate completing its review of those petitions until April 2016. Petitioners also cite EPA's data collection demands during the reconsideration proceeding. EPA has issued several requests for new data from PVC manufacturers, and EPA anticipates opening a new notice and comment period on its proposed modifications to the Rule before completing reconsideration. According to Petitioners, EPA's slow pace and ambitious data

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unreasonable remains applicable to whether Petitioners may be excused for their failure to exhaust their administrative remedies. *Thomas* addressed the circumstances in which courts may compel EPA to take action under the Clean Air Act, and, in that context, held that this court had exclusive jurisdiction over claims to compel agency action "unreasonably delayed." *Thomas*, 828 F.2d at 792-96. Congress in the 1990 Amendments to the Clean Air Act abrogated *Thomas*'s jurisdictional holding and shifted to the district court the power to compel EPA to act. *See* Clean Air Act Amendments, Pub. L. No. 101-549, § 707(f), 104 Stat. 2399, 2683 (1990); *see also* 42 U.S.C. § 7604(a) (explaining that "the district courts of the United States shall have jurisdiction to compel . . . agency action unreasonably delayed"); S. Rep. No. 101-228, at 374 (1989). Those Amendments do not affect our jurisdiction here, however, nor the aspect of *Thomas* on which we rely. This is not a case seeking to compel EPA to take action, but a challenge to existing EPA PVC emissions rules. Petitioners raise their unreasonable-delay allegation in an effort to rebut EPA's contention that Petitioners must await completion of EPA's pending reconsideration of the challenged Rule. When it amended the Clean Air Act, Congress anticipated this very type of case, "where a complaint about agency inaction is 'embedded' in a challenge to agency action," and did not withdraw our jurisdiction. *See* S. Rep. No. 101-228, at 374 (citing *Ind. & Mich. Electric Co. v. EPA*, 733 F. 2d 489, 490 (7th Cir. 1984)).

collection effort show it is not reconsidering the Rule but has embarked on a new rulemaking in the guise of reconsideration.

EPA counters that the Clean Air Act requires EPA to afford on reconsideration "the same procedural rights as would have been afforded" at the time of the original rulemaking, 42 U.S.C. § 7607(d)(7)(B), and that, in this case, affording the parties those "same procedural rights" requires additional data collection and new notice and opportunity for comment. The agency is actively gathering additional data to inform its action on reconsideration, anticipates holding open a new notice and comment period, and predicts that it will complete reconsideration by a date certain (April 2016). There is thus neither a functional denial nor any suggestion in this record that the Agency has finished reconsideration but refused to acknowledge it.

Petitioners also have failed to make the requisite showing that EPA has engaged in unreasonable delay. To establish a claim of unreasonable delay, petitioners must show that they have "a right the denial of which we would have jurisdiction to review upon final agency action but the integrity of which might be irreversibly compromised by the time such review would occur." *Thomas*, 828 F.2d at 796. To qualify as unreasonable, the agency's delay would have to be "so egregious as to warrant mandamus." *Id.* at 797 (internal quotation marks omitted). We have identified two avenues to establishing an unreasonable delay claim: (1) showing that an agency violated a statutory "right to timely decisionmaking" implicit in the agency's regulatory scheme, or (2) showing that some other interest—financial, aesthetic, or related to human health and welfare, for example—"will be irreparably harmed through delay." *Id.* at 796-97.

Petitioners have failed to establish that EPA has deprived them of a statutory right to timely decisionmaking. In evaluating such a claim, we will (a) determine "whether Congress has imposed any applicable deadlines," "exhorted swift deliberation concerning the matter," or otherwise "implicitly contemplate[d] timely final action;" (b) determine "whether interests other than that of timely decisionmaking will be prejudiced by delay;" and (c) determine "whether an order expediting the proceedings will adversely affect the agency in addressing matters of a competing or higher priority." *Id.* at 797. In assessing those factors, we are mindful that, "[a]bsent a precise statutory timetable or other factors counseling expeditious action, an agency's control over the timetable" of its proceedings "is entitled to considerable deference," *id.* (alteration in original) (internal quotation marks omitted) (quoting *Sierra Club v. Gorsuch*, 715 F.2d 653, 658 (D.C. Cir. 1983)), and that "[e]ven where a statutory timetable exists, noncompliance with it has sometimes been excused as long as the agency has acted rationally and in good faith," *Gorsuch*, 715 F.2d at 658 n.35.

The text and structure of the Act suggest that judgments about the permissible duration of a Clean Air Act reconsideration proceeding are fact bound and case specific. The Clean Air Act does not specify limits on the permissible duration of a reconsideration proceeding, and its provisions generally grant the agency broad discretion to correct its own mistakes before its rules are subjected to judicial review. *See* 42 U.S.C. §§ 7607(d)(7)(B), (d)(8).

EPA's forecasted duration of the reconsideration of the wastewater limit and the PVC-combined process vent limit is reasonably proportionate to the gravity and complexity of the rulemaking. EPA has attempted to promulgate a PVC Rule multiple times, and, each time, the attempt has taken several

years. EPA's first attempt began data collection in 1998, and the Rule issued in 2002. *See* 67 Fed. Reg. 45,886, 45,889 (July 10, 2002). This rulemaking began data collection in 2009 for a Rule that issued in 2012. *See PVC Rule*, 77 Fed. Reg. at 22,852, 22,854. The scope of EPA's reconsideration in this case is proportional to the scope of the alleged shortcomings in the 2012 rulemaking, and EPA estimates that its current reconsideration proceeding will take about four years, a duration commensurate with that of EPA's prior efforts to set emissions limits for PVC production.

Petitioners also have failed to establish unreasonable delay in completing reconsideration through the second route our cases have identified: they have not shown that their interests (in this case, financial) will be irreparably harmed if the court awaits the outcome of EPA's reconsideration proceeding. *See Thomas*, 828 F.2d at 794-96*; Randolph-Sheppard Vendors*, 795 F.2d at 107. As we have previously explained in the cognate context of preliminary injunctions, "[t]his court has set a high standard for irreparable injury." *Chaplaincy of Full Gospel Churches v. England*, 454 F.3d 290, 297 (D.C. Cir. 2006). Such injury must be "both certain and great," "actual and not theoretical," "beyond remediation," and "of such *imminence* that there is a clear and present need for equitable relief to prevent irreparable harm." *Id.* (internal quotation marks and citations omitted). Where the injuries alleged are purely financial or economic, the barrier to proving irreparable injury is higher still, for it is "well settled that economic loss does not, in and of itself, constitute irreparable harm." *Wisconsin Gas Co. v. FERC*, 758 F.2d 669, 674 (D.C. Cir. 1985). Financial injury is only irreparable where no "adequate compensatory or other corrective relief will be available at a later date, in the ordinary course of litigation." *Id.*

Petitioners have failed to show any specific, identifiable cost they will incur because of the Rule's emissions limits. They acknowledged at oral argument that the record contains no evidence of their cost of compliance, and they did not then articulate any. *See* Oral Arg. Rec. at 72:55-75:26. For its part, EPA has estimated that "the overall economic impact of this final rule on the affected industries and their consumers should be low," amounting to approximately 0.7 percent of PVC manufacturers' revenues. *PVC Rule*, 77 Fed. Reg. at 22,900. EPA has also estimated that much of the cost of meeting the new emissions standards will arise from verifying compliance with the standard (measuring hazardous air pollutant concentrations from process vents, for example), not purchasing new control technology. *See id.* at 22,899-900. Because costs of measuring emissions in order to monitor compliance must be incurred under any emissions limit, they are not specific to the emissions limits' asserted irrationality and thus not a source of prejudice arising from delay as such.

Petitioners also have failed to establish that EPA's post-reconsideration emissions limits will differ materially from the current limits. That showing matters because, if Petitioners will have to make the same investments and incur the same costs to comply with EPA's ultimate Rule as they have to make under the current Rule, then any delay in shifting from the current limits to (presumptively materially equivalent) final ones is harmless. The court's assessment of the post-reconsideration rule's likely modest impact on existing emissions limits shows that delay in replacing EPA's current emissions limits is in fact likely to be harmless.

In particular, with respect to the existing major source wastewater limit, Petitioners have failed to show any likelihood that the limit will materially change. Petitioners argue the court should vacate EPA's limit because EPA relied

on a faulty data point in setting the limit. But because EPA set the limit through a methodology designed to protect against variability of data, the distorting effect of a single, erroneous data point was minimized; omitting the faulty data point would make the wastewater limit 112 parts per million, rather than 110 parts per million.[7] *See* J.A. 317-18, 326-28. Given that minimal difference, it is probable that Petitioners would have incurred the same costs to comply with either limit.

That conclusion is bolstered by Petitioners' own evidence. Petitioners asserted by post-argument letter to this court that their claim of irreparable harm from the Rule's wastewater limit is substantiated by a document they submitted to EPA in the ongoing reconsideration proceeding measuring emissions from selected PVC production facilities. *See* Letter from Counsel to Petitioners to the Panel (Nov. 21, 2014). The document (assuming its accuracy) cuts against Petitioners' position, however, for it reveals that Petitioners' plants would be unable to comply even with a 1000 parts per million wastewater limit, a limit ten times greater than the 110 parts per million limit in the current Rule. *See* Letter from Richard Krock, Vinyl Institute to Andrea Siefers, USEPA, EPA-HQ-OAR-2002-0037-0561, at 28 (Aug. 16, 2013) ("It is important to note that even with a 1,000 ppm limit, the facility would be in non-compliance at least three times during the sampling period."). Petitioners' admission that they could not comply even with a 1000 parts per million wastewater limit shows that, whether EPA had set the limit at 112 parts per

[7] Intervenors' expert re-conducted EPA's analysis without using the data point that Petitioners contend is faulty, and the fresh calculation produced a new limit of 112 parts per million. *See* Intervenors' Addendum, Sahu Dec. ¶¶ 9-12, Ex. B.

million or 110 parts per million, the different limit's impact on Petitioners likely would have been *de minimis* or zero.

Petitioners have not attempted to articulate how the court's failure to enjoin the Rule based on their other unpreserved objections would result in irreparable harm. They have not established that their procedural objections mean that the Rule is likely to change after reconsideration. Nor have they established that the PVC-combined process vent emissions limits will differ so dramatically after reconsideration that attempting to comply in the meantime with the existing Rule will result in wasteful investments in unnecessarily stringent control technologies.

Because Petitioners have not shown that EPA's delay violates a statutory right to timely decision making or will otherwise cause them irreparable harm, they are not entitled to immediate judicial review of their unpreserved claims. Petitioners' challenges stemming from the inadequacy of notice and comment, to the PVC-combined process vent limits, and to the wastewater limits—all first raised in petitions for reconsideration before EPA—are barred from review at this time.

IV.

Petitioners argue that, if the court cannot immediately review their unpreserved claims, it should stay the effectiveness of the challenged aspects of the Rule pending the outcome of EPA's reconsideration proceeding. For the reasons outlined in the preceding Part, they have failed to show that awaiting the completion of EPA's reconsideration will cause them irreparable harm. *See* Part III, *supra*; *Nken v. Holder*, 556 U.S. 418, 434 (2009) (outlining the requirements for obtaining a stay); D.C. Circuit Rule 18(a)(1). Petitioners are accordingly not entitled to a stay.

The dissent contends that the Court should stay the major source wastewater limit because "EPA itself does not oppose a stay in this case." Dissent at 1. But that oversimplifies EPA's position and does not account for the interests of other stakeholders who supported the rule and who themselves stand to suffer harm from EPA inaction.

In its briefing and at oral argument EPA was emphatic: it did not waive its non-merits, threshold defense that Petitioners are barred from challenging the wastewater limits because they failed to object to them during the notice and comment period. Resp. Br. 33-35; Oral Arg. Rec. at 30:00-32:00; 40:30-45:00. EPA contended that, if the court found the issue to be properly before the court, then and only then would EPA "not oppose" a stay or vacatur of the wastewater limits. Resp. Br. 35.

EPA's consent is not alone a sufficient basis for us to stay or vacate a rule. The court is not bound to accept, and indeed generally should not uncritically accept, an agency's concession of a significant merits issue. *Cf. Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 212-13 (1988) (holding that courts will not defer to an agency's litigating position where it contradicts the agency's prior "regulations, rulings, or administrative practice"). The risk is that an agency could circumvent the rulemaking process through litigation concessions, thereby denying interested parties the opportunity to oppose or otherwise comment on significant changes in regulatory policy. If an agency could engage in rescission by concession, the doctrine requiring agencies to give reasons before they rescind rules would be a dead letter. *See Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 52 (1983).

We note, moreover, that the Clean Air Act provides that "the effectiveness of [a] rule may be stayed during . . . reconsideration . . . by the Administrator [of the EPA] or the court for a period not to exceed three months." 42 U.S.C. § 7607(d)(7)(B). The partial dissent contends that the Court may stay a Clean Air Act rule indefinitely, notwithstanding that language, pointing to the more general stay provisions of the Administrative Procedure Act, 5 U.S.C. § 705, and our decision in *Portland Cement Assoc. v. EPA*, 665 F.3d 177, 189 (D.C. Cir. 2011) (per curiam), which granted a stay pending reconsideration without explicitly squaring it with the Clean Air Act's three-month limitation. We need not reconcile the divergent authorities on the stay question however, because, even assuming the court's power to grant them one, Petitioners have failed to show irreparable harm warranting a stay.

V.

Petitioners' preserved challenges to the substance of EPA's Rule fail on their merits. EPA's PVC-combined process vent limits do not conflict with other emissions limits, and EPA's decision not to subcategorize process vents on the basis of their emissions control technology was reasonable. EPA's bypass opening requirements are not arbitrary and capricious, and its requirement that PVC manufacturers install monitoring equipment on pressure relief devices is not irrational. Finally, Petitioners' argument that some of EPA's bypass regulations are unlawful beyond-the-floor MACT requirements stems from misapprehension of the Clean Air Act and is without merit.

First, the Rule's PVC-combined process vent limits do not create a regulatory conflict with other emissions limits. Petitioners insist that because PVC-combined process vent

limits, by their very nature, incidentally limit emissions from sources outside the PVC source category, the Rule creates a conflict with the emissions limits applicable to those other sources. But, as EPA explained in the preamble to the present Rule, overlapping limits are not necessarily "conflicting" or "inconsistent." *PVC Rule*, 77 Fed. Reg. at 22,865 (internal quotation marks omitted). If a PVC manufacturer chooses to discharge combined emissions from PVC and non-PVC processes through a single vent, that manufacturer must comply with limits applicable to both and, where they differ, comply with the more stringent of the two. *Id.* If the two limits rely on different methods of measurement, both methods must be used. *See id*. That may be burdensome, but it is neither unachievable nor unreasonable. Manufacturers hold the keys to this particular regulatory box. They can avoid the overlap, as EPA explained, by separating PVC-production emissions from those emanating from other sources. *Id.* If they do so, the PVC-only process vent limits will apply to the emissions from PVC production, and the other source's relevant emissions limits will apply to its emissions, eliminating the requirement that the other source comply with the PVC-combined emissions limits. *Id.*

Second, EPA reasonably decided not to subcategorize process vents on the basis of which particular emissions control technology PVC manufacturers choose. The conclusion that EPA need not—indeed should not—relax its emissions limits when polluters use insufficiently effective control technology is inherent in the very idea of technology-forcing regulation. Petitioners contend, however, that the superior effectiveness of their emissions control technology is not accurately measured by EPA's approach.

The thrust of Petitioners' argument is as follows: Most PVC production facilities use "thermal oxidizers" to reduce

their emissions into the atmosphere of hazardous air pollutants. Some, however, use "vent gas absorbers," a control technology with a "radically different" emissions profile from that of a thermal oxidizer. Pet. Br. 52. Thermal oxidizers vent continuously and at high flow rates; vent gas absorbers vent intermittently and at very low flow rates.

EPA's method of determining compliance with the Rule's process vent limits relies on measuring the concentration of hazardous air pollutants in a process vent's effluent stream. A difference in how the two technologies operate means a vent gas absorber's effluent stream has a higher maximum concentration of hazardous air pollutants than does the relatively consistent effluent stream from a thermal oxidizer. Petitioners contend that EPA inaccurately rates vent gas absorbers as less effective than thermal oxidizers at controlling emissions because of the higher concentration of pollutants that vent gas absorbers emit. Vent gas absorbers may nonetheless be a better emissions control technology than thermal oxidizers, Petitioners claim, because they emit their relatively concentrated pollutants only intermittently and at lower rates. The Rule's focus on the concentration of hazardous air pollutants means that vent gas absorbers rate poorly even though they may in fact be more effective.

Spelling out the objection makes it immediately clear that Petitioners' real dispute is not with inadequate subcategorization. Petitioners concede that it was reasonable for EPA to require vent gas absorbers and thermal oxidizers to meet the same emissions limits. Instead, Petitioners' grievance appears to be that the Rule's method of measuring the emission of hazardous air pollutants erroneously concludes that vent gas absorbers are less effective emissions controls than thermal oxidizers. Petitioners' claim, in effect,

is that EPA acted arbitrarily and capriciously in failing to create an alternate method of measuring output from a PVC process vent on the basis of the total mass of hazardous air pollutants it emits, rather than on the basis of the concentration of hazardous air pollutants in its effluent stream.

EPA, however, reasonably chose not to create an alternative measurement format on the basis of total mass emission rates. In the Rule, EPA explained that it "considered setting alternative formats for the process vent emission limits" but that, in its judgment, it "did not have sufficient information provided from industry on process vent stream flow rates and concentrations to develop or evaluate other formats, such as mass emission rates." *PVC Rule*, 77 Fed. Reg. at 22,869. Petitioners counter that EPA's explanation is insufficiently specific and that its want of specificity alone suffices to render it arbitrary and capricious. *See Ne. Md. Waste Disposal Auth. v. EPA*, 358 F.3d 936, 949 (D.C. Cir. 2004). We disagree. EPA's explanation, though short, fully conveys the agency's rationale in declining to set an alternative measurement format and furnishes concrete grounds for framing a challenge to the decision's substantive rationality. Petitioners have done so, arguing that EPA had sufficient information to set alternative emissions formats. Pet. Br. 53. On the merits, Petitioners have not carried their burden of showing that, contrary to EPA's explanation, it did in fact have sufficient data to establish an alternative emissions format. We defer to EPA's judgments about data insufficiency, at least in the absence of further information or explanation from Petitioners regarding why deference is inappropriate. Petitioners' challenge to EPA's decision not to subcategorize process vents on the basis of their emissions control technology therefore lacks merit.

Third, EPA's bypass-opening requirements are not arbitrary and capricious. Petitioners argue that EPA's regulations make opening a bypass unlawful without exception, even if the opening occurs during routine maintenance after performing the equipment opening steps called for elsewhere under the Rule governing maintenance, and that compliance with the Rule is therefore impossible. Pet. Br. 55-56 (citing 40 C.F.R. §§ 63.11955, 63.11930(c)). Petitioners misread EPA's regulations. The regulations anticipate that regulated entities will be allowed to open bypasses during maintenance as long as they comply with the opening provisions set forth therein. 40 C.F.R. §§ 63.11955(a)-(b). Otherwise, the very existence of regulations setting forth instructions for opening bypasses would be superfluous. In the preamble to the Rule, EPA explained that it does not interpret 40 C.F.R. § 63.11930(c) as categorically prohibiting all discharges through bypasses. *See PVC Rule*, 77 Fed. Reg. at 22,885. EPA's interpretation of its own regulations is entitled to our deference. *See Auer v. Robbins*, 519 U.S. 452, 462-63 (1997). In view of the text of EPA's regulations and the Agency's repeated representations about their meaning, Petitioners' claims that EPA's regulations arbitrarily and capriciously prohibit opening bypasses for purposes of routine maintenance are without merit.

Fourth, EPA's requirements for monitoring pressure relief devices are not arbitrary and capricious. Pressure relief devices are important safety equipment that, if not built to route emissions through emissions controls, may, when triggered, emit significant amounts of hazardous air pollutants directly into the atmosphere. *See PVC Rule*, 77 Fed. Reg. at 22,881-82. EPA requires that all releases by pressure relief devices meet the Rule's process vent emissions limits. 40 C.F.R. § 63.11915(c)(1). EPA provides for two methods of

compliance: (1) PVC manufacturers may route discharges from pressure relief devices through emissions control equipment to ensure compliance with the Rule, or (2) equip their pressure relief devices with release indicators to detect uncontrolled discharges. 40 C.F.R. § 63.11915(c)(1)-(2). EPA concluded that such monitoring is necessary to ensure that uncontrolled emissions will be "identified and controlled in a timely manner" and that "repeat problems" will be corrected. *PVC Rule*, 77 Fed. Reg. at 22,882.

Petitioners contend the regulation is unreasonable, however, because EPA did not have enough data about hazardous air pollutant releases from pressure relief devices to justify imposing a costly monitoring requirement. According to Petitioners, releases from pressure relief devices may be so rare, insignificant, and well prevented or well detected by current industry monitoring methods that the regulation is wasteful and unnecessary. EPA responded in the Rule by explaining that, in its judgment based on the data in the record, PVC facilities had not been effectively detecting and recording releases from pressure relief devices. *PVC Rule*, 77 Fed. Reg. at 22,882.

EPA's judgment was reasonable. The paucity of data about the frequency and severity of discharges from pressure relief devices could be because the PVC industry lacks effective methods for detecting or recording releases. If EPA were required to gather exhaustive data about a problem for which gathering such data is not yet feasible, the agency would be unable to act even if such inaction had potentially significant consequences. We have consistently held that, in situations in which an agency must make a judgment in the face of a known risk of unknown degree, the "agency has some leeway reasonably to resolve uncertainty, as a policy matter, in favor of more regulation or less." *Ctr. for Auto*

Safety v. Fed. Highway Admin., 956 F.2d 309, 316 (D.C. Cir. 1992). Here, the agency's choices were to do nothing, consistent with PVC manufacturers' assertions that their current efforts were adequate, or promulgate a regulation to protect against risk. *See PVC Rule*, 77 Fed. Reg. at 22,881-82. Petitioners point to some data EPA had on certain devices and claim EPA ignored it. But, as EPA explained in the Rule, that data did not give EPA reason to believe that *all* PVC manufacturers have and use effective discharge detection and recording technology. *Id.* EPA recognized the high stakes of the decision to do nothing, explaining that releases from pressure relief devices "have the potential to emit large quantities of [hazardous air pollutants], and a large number of these releases that may occur may not be identified and controlled in a timely manner, and may be due to repeat problems that have not been corrected." *Id.* at 22,882. EPA thus reasonably exercised its broad discretion to require monitoring of pressure relief devices to ensure compliance with the Rule's emissions limits.

Fifth, EPA's regulations designed to ensure the detection of discharges through bypasses are not beyond-the-floor MACT requirements. The Rule requires PVC manufacturers to install a flow indicator, lock-and-key system, or "car seal" on bypasses to detect when they are opened. 40 C.F.R. §§ 63.11930(c)(1), (2).[8] Petitioners contend that EPA failed to determine whether its regulation would be "achievable" in light of "cost, energy requirements, and other factors," as

[8] A car seal may be an inexpensive plastic fastener (*e.g.*, a zip tie) or a steel cable closed in a loop with a small block of aluminum or steel. *See* 40 C.F.R. § 63.12005 (defining "Car-seal" as "a seal that is placed on a device that is used to change the position of a valve . . . in such a way that the position of the valve cannot be changed without breaking the seal").

EPA is required to do before imposing a beyond-the-floor MACT limit under Section 112(d)(2) of the Clean Air Act. *Sierra Club v. EPA*, 353 F.3d 976, 989 (D.C. Cir. 2004); *see* 42 U.S.C. § 7412(d)(2). Petitioners' argument lacks merit because EPA's bypass Rule simply is not a beyond-the-floor MACT requirement and so is not subject to Section 112(d)(2). The requirement was enacted pursuant to EPA's statutory authority under Section 114(a)(1)(C), permitting the agency to require the installation, use, and maintenance of monitoring equipment to ensure compliance with a MACT emissions limit. *See* 42 U.S.C. § 7414(a)(1)(C); *PVC Rule*, 77 Fed. Reg. at 22,860. Bypass flow indicators, locks, and car seals are all monitoring devices: they determine whether a PVC facility is in violation of the Rule by identifying either mechanically (as with a flow indicator) or visually (as with an open lock or broken seal) an open bypass that may discharge pollutants. EPA reasonably and lawfully required PVC manufacturers to install, use, and maintain them pursuant to Section 114(a)(1)(C). We therefore reject Petitioners' argument that EPA's bypass monitoring regulation somehow triggers Section 112(d)(2)'s cost-benefit requirements.

* * *

For the foregoing reasons we deny the petitions for review.

KAVANAUGH, *Circuit Judge*, dissenting in part: EPA issued a rule that imposes limits on emissions of hazardous air pollutants by manufacturers of polyvinyl chloride. But EPA later concluded that one category of those limits – the so-called wastewater limits on hazardous air pollutants that may be dissolved in wastewater – was based on bad data. EPA is therefore reconsidering the wastewater limits. EPA says that it will complete the reconsideration process in 2016.

Petitioners, who are manufacturers of polyvinyl chloride, contend that EPA's flawed wastewater limits should be stayed under 5 U.S.C. § 705, the general Administrative Procedure Act provision authorizing stays pending judicial review. Petitioners are correct. They obviously have demonstrated a likelihood of success on the merits; after all, EPA concedes that the wastewater limits are flawed. And petitioners also have shown irreparable harm – namely, the high costs to comply with the flawed wastewater limits. Moreover, petitioners have precedent on their side: In a similar case in which EPA was reconsidering a concededly flawed rule, we readily granted a stay. *See Portland Cement Association v. EPA*, 665 F.3d 177, 189 (D.C. Cir. 2011) ("We will, however, enter a stay of the NESHAP standards applicable to clinker storage piles. EPA has conceded that it 'did not give sufficient notice' of those standards and has granted PCA's request for reconsideration . . . . Thus, industry should not have to build expensive new containment structures until the standard is finally determined.").

Even EPA itself does not oppose a stay in this case. EPA's position is telling. Given the circumstances here, as well as our *Portland Cement* precedent, I would stay the wastewater limits pending judicial review.

To be sure, the Clean Air Act imposes a 3-month limit on stays *pending agency reconsideration*. *See* 42 U.S.C. § 7607(d)(7)(B). But Section 705 of the APA authorizes

courts to stay agency rules *pending judicial review* without any time limit on the duration of the stay. *See* 5 U.S.C. § 705 (reviewing court "may issue all necessary and appropriate process to postpone the effective date of an agency action or to preserve status or rights pending conclusion of the review proceedings"); *In re GTE Service Corp.*, 762 F.2d 1024, 1026 (D.C. Cir. 1985) (Section 705 provides "statutory authority to stay agency orders pending review in this court.").[1] Therefore, in this case, we should issue a stay that remains in effect pending judicial review.

For those reasons, I respectfully dissent from the majority opinion's decision not to stay EPA's wastewater limits.[2]

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[1] The Clean Air Act does not displace Section 705, the general APA provision governing stays pending judicial review. The Clean Air Act expressly provides that several provisions of the APA – 5 U.S.C. §§ 553-557 and 706 – "shall not, except as expressly provided in this subsection, apply to actions to which this subsection applies." 42 U.S.C. § 7607(d)(1). Section 705 is not on that list. By contrast, Congress has displaced Section 705 in other statutory regimes. *Cf.* 16 U.S.C. § 1855(f)(1) (fishery management regulations subject to judicial review in accordance with Administrative Procedure Act, but not with Section 705); *id.* § 3636(c) (Pacific salmon fishing regulations subject to judicial review in accordance with Administrative Procedure Act, but not with Section 705). Had Congress wanted to prevent courts in Clean Air Act cases from issuing stays under Section 705, Congress could have done so.

[2] Petitioners also challenge EPA's process vent emissions limits and the compliance and monitoring provisions. I agree with the majority opinion that those claims lack merit.