United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued April 10, 2014 Decided July 8, 2014

No. 12-1256

CTS CORPORATION,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY
AND GINA MCCARTHY,
RESPONDENTS

On Petition for Review of Final Agency Action of
the United States Environmental Protection Agency

Dennis Murashko argued the cause for petitioner. With him on the briefs were *Brian J. Murray* and *Michael F. Dolan*.

Justin D. Heminger, Trial Attorney, U.S. Department of Justice, argued the cause for respondents. On the brief were *Robert G. Dreher*, Acting Assistant Attorney General, and *T. Monique Peoples*, Attorney.

Before: BROWN, MILLETT and PILLARD, *Circuit Judges*.

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

MILLETT, *Circuit Judge*: Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. §§ 9601 *et seq.*, the Environmental Protection Agency maintains a National Priorities List that identifies those hazardous-waste sites considered to be the foremost candidates for environmental cleanup. CTS Corporation has petitioned for review of the EPA's decision to add to the National Priorities List a site centered around property formerly owned by the company. CTS argues that, in listing the site, the EPA failed to properly consider and analyze relevant data. Because each of CTS's objections is without merit, forfeited, or impermissibly based on extra-record evidence, we deny the petition for review.

I

Through CERCLA, Congress established a regulatory system (i) to identify and remediate "some of the serious public health and environmental problems * * * caused by improper disposal of hazardous wastes, pollutants and contaminants," *Eagle-Picher Indus., Inc. v. EPA* (*Eagle-Picher I*), 759 F.2d 905, 909 (D.C. Cir. 1985), (ii) "to promote the timely cleanup of hazardous waste sites[,] and [(iii)] to ensure that the costs of such cleanup efforts [a]re borne by those responsible for the contamination," *CTS Corp. v. Waldburger*, 134 S. Ct. 2175, 2180 (2014) (internal quotation marks omitted).

To that end, CERCLA requires the EPA to create and revise annually the National Priorities List (List). 42 U.S.C. § 9605(a)(8). That List identifies the areas of known or threatened releases of hazardous substances throughout the United States that the EPA determines are a priority for remedial action based on the relative risk or danger they pose to the public health, public welfare, or the environment. *Id.*

To inform its listing decisions, the EPA created the Hazard Ranking System. *See* 40 C.F.R. § 300.425; *id.* Part 300, App. A. That System "serves as a screening device to evaluate the potential for releases of uncontrolled hazardous substances to cause human health or environmental damage." *Id.* Part 300, App. A, § 1.0. In evaluating the threat posed by a site, the EPA evaluates up to four separate pathways of contaminant migration: groundwater, surface water, soil exposure, or air migration. *Id.* § 2.1. For each pathway, the Hazard Ranking System evaluates and weighs the "likelihood of release," the "waste characteristics" (that is, its quantity, toxicity, and ability to spread, accumulate, or persist), and the "targets" (that is, the potentially affected human population and environmental resources). *Id.* §§ 2.1.2, 2.4, 2.5. That methodology produces a numerical score ranging from 0 to 100. *Id.* § 2.1.1. Sites with scores at or above 28.50 are eligible for inclusion on the List. *See* 77 Fed. Reg. 15,276, 15,278 (March 15, 2012).

Once a site is placed on the List, remedial action taken at the site can be financed through the EPA's Superfund program. 40 C.F.R. § 300.425(b)(1); *see also Honeywell Int'l, Inc. v. EPA*, 372 F.3d 441, 443 (D.C. Cir. 2004). Inclusion of a site on the List, however, does not guarantee that Superfund program monies will be expended. Rather, the EPA "may also pursue other appropriate authorities to remedy the release, including enforcement actions under CERCLA and other laws." 40 C.F.R. § 300.425(b)(2).

In addition, the listing of a site "does not in itself reflect a judgment of the activities of [the site's] owner or operator, it does not require those persons to undertake any action, nor does it assign liability to any person." *Anne Arundel County v. EPA*, 963 F.2d 412, 413 (D.C. Cir. 1992) (quoting S. Rep. No. 848, 96th Cong., 2d Sess. 60 (1980), *reprinted in* 1 A

LEGISLATIVE HISTORY OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (SUPERFUND), PUBLIC LAW 96-510, at 308, 367 (Comm. Print 1983)); *see also Honeywell Int'l*, 372 F.3d at 443. Instead, Congress intended that the List would serve simply "as a tool for identifying quickly and inexpensively those sites meriting closer environmental scrutiny." *Honeywell Int'l*, 372 F.3d at 443 (quoting *Washington State Dep't of Transp. v. EPA*, 917 F.2d 1309, 1310 (D.C. Cir. 1990)).

The site at issue in this case centers around a property near Asheville, North Carolina, formerly owned by a CTS subsidiary. From 1959 through 1986, the property was used as a manufacturing plant engaged in, among other things, electroplating. That electroplating process employed the hazardous chemical trichloroethylene (TCE) as a cleaning agent, with TCE both stored on site and released through drains in the plant facility. For over two decades, waste produced at the plant that could not be reclaimed through the on-site, hazardous-waste treatment plant was disposed of through the city sewers. After 1980, the waste was stored in tanks or drums that were eventually transported off-site for disposal or recycling. Plant operations ceased in April 1986, and CTS sold the property to Mills Gap Road Associates the next year.

Since 1982, the CTS property has been the subject of attention from state and federal environmental agencies. Initial assessments in the late 1980s and early 1990s detected significantly elevated TCE levels in the soil around the former manufacturing plant, and TCE and other hazardous chemicals (specifically, vinyl chloride and 1,2-dichloroethylene) in surface water samples on the property. At the time, however, a contractor for the EPA recommended

no further remedial action, based on the investigation that had been conducted to that point, including an initial migration pathway analysis.

A complaint in 1999 to a state environmental agency regarding an "oily leachate" on a neighboring property sparked renewed concern about the CTS property. J.A. 223. Additional sampling conducted that year detected TCE in springs and wells near the former CTS property. At the property itself, TCE was detected in very high concentrations, both at a significant depth in the soil and in a groundwater monitoring well. In 2008, sampling conducted of fifteen wells in the residential Oaks Subdivision, which is located approximately a half-mile northeast of the CTS property, found TCE in three samples, in concentrations ranging from 8.8 µg/L to 51 µg/L. That far exceeded the maximum contaminant level of 5 µg/L for TCE in drinking water. *See* 40 C.F.R. § 141.61(a). A series of additional investigations, including several by Lockheed Martin for the EPA, studied the groundwater conditions in the area and assessed the risk posed by the contamination in the Oaks Subdivision, as well as its relation to the contamination detected earlier at the former CTS property itself.

In March 2011, the EPA published a proposed rule that would add the site (along with fourteen others) to the National Priorities List. *See* 76 Fed. Reg. 13,113, 13,113 (March 10, 2011). The site included both the contaminated soil under and around the former CTS plant and the associated releases of this contamination to the groundwater, which extended as far as the Oaks Subdivision (CTS Site). The EPA computed the site's Hazard Ranking System score by evaluating the groundwater migration pathway and seven observed releases of hazardous substances, including the contamination found

in four wells in the Oaks Subdivision. The resulting score was 48.64.

After considering public comments, including several from CTS opposing the listing, the EPA recalculated the site's Hazard Ranking System score as 38.40 based on a revised count of the number of people in the area who were potentially affected by the contamination. Because that score still exceeded the 28.50 threshold for listing, the EPA's final rule added the CTS Site to the List. *See* 77 Fed. Reg. 15,276, 15,279 (March 15, 2012).

II

Before addressing the merits of CTS's suit, a word about standing. This court, as a matter of constitutional duty, must assure itself of its jurisdiction to act in every case. *See Friends of the Earth, Inc. v. Laidlaw Environmental Servs. (TOC), Inc.*, 528 U.S. 167, 180 (2000). For that reason, we require parties who petition this court for direct review of agency action to affirmatively demonstrate their standing. *See* D.C. CIR. R. 28(a)(7). CTS accordingly was obligated to identify in the agency record "evidence sufficient to support its standing to seek review or, if there is none because standing was not an issue before the agency, [to] submit additional evidence to the court of appeals." *Sierra Club v. EPA*, 292 F.3d 895, 899 (D.C. Cir. 2002). And because CTS seeks a final judgment on the merits invalidating a regulation, CTS was required to demonstrate "a 'substantial probability' that it has been injured, that the defendant caused its injury, and that the court could redress that injury." *Americans for Safe Access v. DEA*, 706 F.3d 438, 443 (D.C. Cir. 2013) (quoting *Sierra Club*, 292 F.3d at 899); *see also Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992) ("[E]ach element [of standing] must be supported in the same way as

any other matter on which the plaintiff bears the burden of proof, *i.e.*, with the manner and degree of evidence required at the successive stages of the litigation.").

In *Mead Corp. v. Browner*, 100 F.3d 152 (D.C. Cir. 1996), this court recognized that the consequences of a listing decision often may provide "ample" grounds for standing by, for example, dramatically increasing the chances that the EPA will undertake costly cleanup activities that could be charged to the property owner and by providing the EPA with additional bargaining leverage to pressure a party in CTS's position to contribute to the cleanup, *id.* at 155. *Browner* also acknowledged that simply being linked to a site placed on the List may damage a company's business reputation or reduce the value of the listed property. *Id.*; *see also, e.g.*, *US Magnesium, LLC v. EPA*, 630 F.3d 188, 190 (D.C. Cir. 2011).

As the former owner of the underlying property, CTS asserts no legal interest in the impact of the listing on the value of the property itself. Instead, CTS argued in its brief, in fairly conclusory fashion, that the listing could harm its business reputation or potentially increase its responsibility for a cleanup. But the scantiness of CTS's argument overlooks that standing is always a case- and context-specific inquiry. *See National Wildlife Federation v. Hodel*, 839 F.2d 694, 703-704 (D.C. Cir. 1988). As the EPA noted in its brief, CTS's claim that the listing inflicted reputational harm is substantially undermined by the fact that, for more than a quarter century, state and federal environmental agencies already have publicly focused on hazardous-waste concerns at and around the CTS property. In addition, CTS has already entered into an Administrative Order on Consent with the EPA for removal action at its former property at the time of the listing decision, and thus both its resources and reputation were already publicly linked to the cleanup of hazardous

waste at the property. Accordingly, to establish an injury fairly traceable to the listing, CTS was obligated to prove that the listing triggered *additional* reputational harm or *additional* financial responsibility.

While our standing inquiry would have been facilitated by particularized focus on the issue from CTS, we conclude that, on this record, CTS has standing. First, although CTS has already been publicly linked to environmental concerns regarding its former property, the List's inclusion of a larger site based on contamination reaching all the way to the Oaks Subdivision links CTS to a new and expanded "threat to human health and the environment," at least for purposes of further investigation by the EPA. J.A. 78.

Second, as both the government and CTS acknowledged at oral argument, the listing "brings [CTS] within the web of [the Superfund program's] cleanup and enforcement scheme," *Browner*, 100 F.3d at 155, permitting the agency to exert increased leverage over CTS by expending appropriations on remediation while potentially constraining efforts by CTS to cabin the scope of the cleanup action financially attributed to it. Oral Arg. Rec. at 25:44-27:10; 34:56-35:49. Consequently, as in *Browner*, CTS faces an increased risk that the EPA will undertake costly remediation activity for which CTS may be held responsible, as well as an increase in the expected geographic scope of what that remediation activity may cover. CTS has thus adequately demonstrated a legally cognizable injury caused by the EPA's listing decision and redressable by this court.

III

On the merits, there is no dispute that material levels of TCE, the hazardous contaminant used, stored, and released by CTS at its property for decades, were found at four wells in

the Oaks Subdivision. CTS, however, levels three objections to the EPA's identification of the CTS property as the source of any portion of the Oaks Subdivision contamination. That attribution of responsibility is critical because the EPA does not dispute that it was the four observed releases at those Oaks Subdivision wells that pushed the Hazard Ranking System score for the CTS Site over the 28.50 benchmark for listing.

This court affords "significant deference" to the EPA's decision to add a site to the List "because of the 'highly technical issues involved' and because the [List] serves merely as a 'rough list of priorities, assembled quickly and inexpensively.'" *Carus Chemical Co. v. EPA*, 395 F.3d 434, 441 (D.C. Cir. 2005) (quoting *Bradley Mining Co. v. EPA*, 972 F.2d 1356, 1359 (D.C. Cir. 1992)). Accordingly, to prevail, CTS bears the burden of establishing that the EPA's decision that the CTS Site contributed in "[s]ome portion" to the contamination of the Oaks Subdivision wells, *see* 40 C.F.R. Part 300, App. A, § 3.1.1, was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Carus Chemical*, 395 F.3d at 441 (quoting 5 U.S.C. § 706(2)(A)).[1] None of CTS's objections succeed.

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[1] We have also at times applied a "substantial evidence" standard to our review under Section 706(2)(A) of the EPA's informal rulemaking in adding sites to the National Priorities List. *See National Gypsum Co. v. EPA*, 968 F.2d 40, 41 (D.C. Cir. 1992). "[I]n their application to the requirement of factual support the substantial evidence test and the arbitrary or capricious test are one and the same." *Butte County v. Hogen*, 613 F.3d 190, 194 (D.C. Cir. 2010) (quoting *Association of Data Processing Serv. Orgs. v. Board of Governors of Fed. Reserve Sys.*, 745 F.2d 677, 683 (D.C. Cir. 1984)).

A. The EPA's Evaluation of Alternative Sources

CTS first argues that the EPA's attribution determination was arbitrary and capricious because the agency failed to investigate potential alternative sources for the elevated TCE levels, emphasizing in particular the potential role of area septic tanks. The EPA, of course, need not exclude all other possible sources of TCE in the Oaks Subdivision wells; it need only "examine[] the relevant data and articulate[] a rational explanation" for its judgment that the original CTS property contributed *some portion* of the contamination. *Board of Regents v. EPA*, 86 F.3d 1214, 1220 (D.C. Cir. 1996) (brackets and ellipses omitted) (quoting *Eagle-Picher I*, 759 F.2d at 921). CTS's claim that the EPA failed in that task is untethered from the administrative record and the law.

Least defensible is CTS's argument that the EPA "failed to follow its own expert's recommendation regarding the possibility that TCE in the Oaks Wells is linked to the nearby septic tanks," rather than to the former CTS property. CTS Br. 24. That is because the EPA's expert, after further study, reconsidered that very recommendation and withdrew its initial assessment regarding the likely source of the contamination in the Oaks Subdivision.

In 2009, Lockheed Martin Technology Services submitted a report to the EPA suggesting that the elevated TCE levels in the Oaks Subdivision wells "probably originate from either one or more local sources, or from a source other than" the former CTS property, and proposing additional testing. J.A. 51. What the record reflects—and what CTS's argument broadly ignores—is that, consistent with its recommendations, Lockheed Martin conducted additional testing in 2010. And based on the results, Lockheed Martin concluded that "leaking septic systems are not probable

sources of contamination in the Oaks Residential Area," and that "a secondary source [of the contamination], topographically upgradient of the Oaks Residential Area"—that is, with contamination flowing down from such a hypothetical secondary source into the wells—"is unlikely." J.A. 348. For that reason, CTS's argument that the EPA, "without explanation or justification, act[ed] contrary to recommendations of its own experts," CTS Br. 24, is baffling.

CTS's argument misunderstands the law as well. This court has not overturned previous EPA listing decisions for failure to follow one "expert's recommendation," but rather for departing without explanation from previously articulated EPA policy or the positions of multiple EPA experts. *See Anne Arundel*, 963 F.2d at 416 (EPA "offered no explanation or justification for its use of unfiltered samples alone in direct conflict *with the stated policy of Region III*") (emphasis added); *Kent County v. EPA*, 963 F.2d 391, 396 (D.C. Cir. 1992) (describing same policy documents at issue in *Anne Arundel* as "documents that discuss what appears to be a well-aired debate between using filtered and unfiltered samples" that "relate to the position of the agency's own experts on the question central to this case"). The EPA certainly is under no rigid obligation to hew to the type of tentative-and-later-superseded expert suggestion to which CTS clings.

CTS's only other response on this point is to note that Lockheed Martin's 2011 report did not "rule out" septic tanks as a possible source of contamination. CTS Reply Br. 27. True enough. But the EPA did not have to do that to rationally conclude that the original CTS property contributed "some portion" of the contamination. The EPA, moreover, could rationally choose to defer any more definitive investigation into the "nature and extent of the problems presented" until after the listing decision. *See Eagle-Picher*

Industries, Inc. v. EPA (*Eagle-Picher III*), 822 F.2d 132, 139 n.26 (D.C. Cir. 1987). While there undoubtedly may be cases in which the presence of a "much more likely source" of a hazardous substance is so patent in the record that it would be arbitrary or unreasonable for the EPA not to conduct a more searching investigation into possible sources, *see Tex Tin Corp. v. EPA* (*Tex Tin II*), 992 F.2d 353, 356 (D.C. Cir. 1993), that is not this case.

With respect to CTS's more specific objections to the substance of the EPA's investigation of alternative contamination sources, those too cannot be reconciled with the EPA's actual decisionmaking record. In listing the CTS Site, the EPA explained that it had investigated the possibility that septic tanks contributed to the TCE contamination in the Oaks Subdivision wells by testing groundwater collected from shallow fractures in those wells. That testing revealed the possible presence of septic tank leachate in only one well, and that well was not one in which TCE or other chlorinated solvents had been detected. CTS, for its part, offered no objection whatsoever during notice and comment to the EPA's use of that testing method. Nor did it explicate any objection to the testing beyond an oblique footnote in its opening brief in this court. Instead, the first time that CTS proffered a non-conclusory challenge to the adequacy of that testing was in its reply brief here. That is far too late. *See Novak v. Capital Mgmt. & Development Corp.*, 570 F.3d 305, 316 n.5 (D.C. Cir. 2009) ("'[T]o prevent sandbagging of appellees and respondents,' the court treats an argument as waived when the petitioners 'were obscure on the issue in their opening brief' and only 'warmed to the issue' in their reply brief.") (ellipses and brackets omitted) (quoting *Board of Regents*, 86 F.3d at 1221); *Kent County*, 963 F.2d at 399 ("We have continually stressed that parties opposing NPL

listing must present their claims clearly and specifically to the agency before raising them in a petition for review.").[2]

The handful of challenges that CTS did timely make to the EPA's testing processes amount to little more than methodological nit-picking. For example, CTS argues that the EPA should have taken two additional steps in its tests: (i) collecting groundwater and soil samples from septic tank fields in the area, and (ii) sending information requests to area homeowners to investigate whether they had cleaned their septic tanks with TCE. What the EPA did do in addition to its shallow-fracture groundwater testing was (i) undertake additional sampling upgradient from the contaminated Oaks Subdivision wells, (ii) submit information requests to area businesses, (iii) follow up with a potential user of TCE that its processes identified, and (iv) conduct testing that revealed that TCE was entering the Oaks Subdivision wells at such a depth as to indicate a more distant, rather than local, source.

Given the substantial deference we owe the EPA on such matters of technical expertise, *see City of Waukesha v. EPA*, 320 F.3d 228, 247 (D.C. Cir. 2003), we conclude that the EPA performed sufficient testing addressing the actual question at issue, which is not whether any TCE may exist around area septic tank fields generally, but rather whether any such alternative sources of TCE were actually the source of contamination at the Oaks Subdivision wells. As the EPA

[2] To be sure, the requirement that an objection first be raised with reasonable specificity before the agency is not jurisdictional. *See EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584, 1602-1603 (2014) (Clean Air Act). Because CTS's double forfeiture here deprived the EPA of any meaningful opportunity to respond to the objection, we decline to exercise our discretion to address the argument.

reasonably explained below, given all the steps that it had already taken to investigate the possibility that septic tanks were contributing to the contamination at the Oaks Subdivision wells, "further efforts were not needed." J.A. 125. Nothing in CERCLA or principles of administrative review obligated the EPA to run the gauntlet of test methodologies before listing the site. *Cf. City of Stoughton v. EPA*, 858 F.2d 747, 756 (D.C. Cir. 1988) ("It is not necessary that EPA's decisions as to what sites are included on the [List] be perfect, nor even that they be the best."). In short, it is impossible on this record to say that the EPA failed to examine the relevant data or to articulate a rational explanation for its actions.

B. The EPA's Determination that a Hydraulic Connection Existed Between the CTS Property and the Contaminated Oaks Subdivision Wells

CTS also contends that the EPA lacked "actual data" supporting its conclusion that a hydraulic connection permitted contamination from the CTS property to migrate to the Oaks Subdivision wells. CTS Br. 32. CTS's argument demands from the EPA a quantum of and conclusiveness in evidence beyond what this preliminary listing decision requires. In fact, substantial evidence supports the EPA's determination that a hydraulic connection existed between the CTS property and the wells.

First, the EPA's starting point was documented proof that TCE had been released into the groundwater in concentrations of up to 35,000 µg/L under and near the former CTS property.

Second, the EPA found no geological evidence of any discontinuities or barriers to water flow within the aquifer underlying the area of the CTS Site, including between the

contamination source under the former CTS plant and the observed releases at the Oaks Subdivision wells.

Third, a host of data on the surface and subsurface geology of the area reinforced the evidence of connection, including assessments conducted by the United States Geological Survey and the North Carolina Geological Survey. Those assessments, and the analysis of them prepared by the EPA's geologist, revealed that fractures in the bedrock underneath the CTS property were generally oriented to permit groundwater to flow first to the east-southeast toward two nearby wells in which high levels of TCE had been found. Then, once outside the immediate area of the CTS property and those nearby wells, the bedrock fractures were generally oriented to allow water to continue to flow to the north-northeast, directly toward the Oaks Subdivision wells and another highly contaminated well located between the former CTS property and the Oaks Subdivision.

Fourth, packer testing revealed that the TCE in the Oaks Subdivision wells was more concentrated at greater depths and appeared to be entering the wells through relatively deep fractures before being carried upward.[3] That corroborated the EPA's judgment that the contamination was likely flowing to the wells from a distant source through deep fractures in the bedrock.

Fifth, the testing performed by Lockheed Martin on the EPA's behalf suggested a direct hydraulic connection between the Oaks Subdivision wells and "Well 1," a highly

[3] Packer testing involves isolating a specific fracture zone in a well, often identified through an earlier geologic survey, and then pumping the well to sample water specifically from the particular depth or fracture that has been isolated.

contaminated well closer to the CTS property. And CTS does not dispute Well 1's hydraulic connection to the property. Specifically, when Lockheed Martin capped Well 1, it observed that water levels at two of the Oaks Subdivision wells in which TCE was detected rose, and when Well 1 was uncapped, water levels at the two wells fell. While Lockheed Martin proposed additional aquifer testing to confirm this result, the well-capping test it had already performed buttressed the EPA's judgment that a hydraulic connection existed among the wells.

That interlocking chain of evidence is more than sufficient at this early listing stage to support the EPA's reasonable inference of a hydraulic connection between the CTS property and the Oaks Subdivision wells. This court has repeatedly sustained similar EPA judgments reasonably connecting or tracing contaminant flow based on relevant geological indicators. In *Eagle-Picher III*, for example, the EPA rested a listing decision, in critical part, on equating a documented release of hazardous substances into one aquifer (the Boone aquifer) with a documented release into another (the Roubidoux aquifer). The EPA did so "because of the documented existence of bore holes and the possibility of other links between" the two aquifers. 822 F.2d at 138; *see id*. at 139 & nn.25-26 (final verification of interconnecting pathway not necessary for listing decision). When a petitioner demanded "empirical data * * * demonstrat[ing] that mine water is, in fact, migrating to the Roubidoux formation through 'boreholes,'" this court held that it was "appropriate and adequate" for the agency to make "reasonable inferences," given that "documentation of the Boone's contamination and the existence of numerous boreholes connecting it with the Roubidoux strongly supports the inference that the Roubidoux receives polluted water from the Boone." *Id.* at 141; *see also B & B Tritech, Inc. v. EPA*,

957 F.2d 882, 884 (D.C. Cir. 1992) ("The presence of trace contaminants in the deep aquifer layer, together with the direct evidence of vertical permeability, was sufficient to demonstrate a connection between the two layers of the Biscayne Aquifer."); *City of Stoughton*, 858 F.2d at 752 (following *Eagle-Picher III*).

CTS's demand for "actual data" documenting the hydraulic connection fares no better than the petitioner in *Eagle-Picher III*'s demand for "empirical data" evidencing a connection "in fact." 822 F.2d at 141. Both as a matter of making the sensible technical judgments that Congress assigned to it and shepherding taxpayer resources, the EPA can make its preliminary listing decision without first pursuing every test suggested or persuading the most fervent skeptic. The law requires substantial evidence, not proof beyond a reasonable doubt.[4]

Finally, CTS's reliance on *Tex Tin II* is misplaced. In that case, the EPA had inferred that arsenic was reasonably likely to migrate through the air from a tin slag heap. *See Tex Tin II*, 992 F.2d at 354. The problem for the EPA was that it was exceedingly difficult for arsenic to be separated out from the slag except at very high temperatures. *Id.* While arsenic-

[4] In this court, CTS advanced for the first time in its reply brief an argument that hydraulic connection is distinct from hydraulic influence, and contended that the data tied to Well 1 relates only to hydraulic influence. That argument is too little too late. Having failed to present this argument to the agency and having raised it here only in its reply brief, CTS's conclusory argument (as well as its similarly belated attempt to dispute the EPA's inference based on the vertical distribution of TCE within the Oaks wells), is forfeited twice over. *See Novak*, 570 F.3d at 316 n.5; *Kent County*, 963 F.2d at 399.

laden dust was also considered toxic, the petitioner had provided detailed and specific expert testimony during the rulemaking indicating that its slag was unlikely to generate dust capable of becoming airborne, to which the EPA had responded with generic studies on waste piles in the abstract. *See id.* at 354-355. Moreover, any ability the agency might have had to rely on the presence of arsenic in the soil as support for the inference of potential migration was precluded by the petitioner's identification of a "much more likely source" of the contamination: the facility's smokestack, which formerly had a federal permit to emit arsenic. *Id.* at 356. On that particular record, we faulted the EPA for relying on only "unsupported assumptions to back up its conclusion that arsenic-laden dust particles are likely to come from the tin slag." *Id.* at 355; *see also Tex Tin Corp. v. EPA*, 935 F.2d 1321, 1324 (D.C. Cir. 1991) (rejecting the EPA's argument that the court should "'use [its] common sense' to conclude that slag containing arsenic * * * can be 'reasonably expected' to migrate"). Here, by contrast, the EPA's judgment rested on multiple sources of reliable, site-specific hydrogeological evidence all pointing in the same direction—to the original CTS property—and providing substantial support for the EPA's reasonable conclusion that CTS's counter-theories required no further investigation.

C. CTS's Reliance on Extra-Record Evidence Relating to Isotope Data

CTS's concluding effort to delink the CTS property and the Oaks Subdivision wells seeks to bypass the administrative record and process altogether and have this court consider new scientific evidence in the first instance. Specifically, CTS proffers in its briefs a new expert report critiquing an EPA isotope analysis performed on the TCE in groundwater samples taken from some of the Oaks Subdivision wells and

from Well 1. CTS contends that its analysis of the relative biodegradation of the TCE and 1,2-dichloroethylene in the samples shows that the TCE could not have travelled to the Oaks Subdivision wells from the former CTS property through Well 1, as (according to CTS) the EPA had hypothesized. That challenge fails in multiple respects.

To begin with, CTS's premise is wrong. The EPA did *not* proceed during rulemaking solely on the theory that the TCE contamination had travelled to the Oaks Subdivision wells by way of a single "rock pipeline" passing under Well 1. CTS Reply Br. 18. The EPA explained that the contamination could have arrived in the Oaks Subdivision through multiple routes, including bedrock fractures located "at any point" between the former CTS property and Well 1, J.A. 86, and, indeed, "distant wells could be connected directly to the contamination under the CTS facility through fractures," J.A. 87.

In any event, we need not linger over the parties' geological debate. The entire argument is procedurally foreclosed. CTS made no effort at all to present this argument or the expert analysis on which it relies to the agency; neither appears anywhere in the administrative record. It is "black-letter administrative law that in an [Administrative Procedure Act] case, a reviewing court 'should have before it neither more nor less information than did the agency when it made its decision.'" *Hill Dermaceuticals, Inc. v. FDA*, 709 F.3d 44, 47 (D.C. Cir. 2013) (quoting *Walter O. Boswell Mem'l Hosp. v. Heckler*, 749 F.2d 788, 792 (D.C. Cir. 1984)).

Exceptions to that rule are quite narrow and rarely invoked. They are primarily limited to cases where "the procedural validity of the agency's action remains in serious

question," *Hill Dermaceuticals*, 709 F.3d at 47 (brackets and ellipsis omitted) (quoting *Esch v. Yeutter*, 876 F.2d 976, 991 (D.C. Cir. 1989)), or the agency affirmatively excluded relevant evidence, *Kent County*, 963 F.2d at 396 ("[S]upplementing the administrative record might be proper if petitioners made a prima facie showing that the agency excluded from the record evidence adverse to its position[.]") (internal quotation marks omitted).

In those situations, resort to extra-record evidence may, for example, help the court to determine whether the administrative record is deficient in the first place. *See Theodore Roosevelt Conservation P'ship v. Salazar*, 616 F.3d 497, 514 (D.C. Cir. 2010). But even then, the exception "at most * * * may be invoked to challenge *gross procedural deficiencies*—such as where the administrative record itself is so deficient as to preclude effective review." *Hill Dermaceuticals*, 709 F.3d at 47 (emphasis added).

Here, CTS did not even move to supplement the record. *See, e.g.*, *Kent County*, 963 F.2d at 395 (considering request to supplement the administrative record). Instead, CTS simply attached the new evidence to its brief and takes two inconsistent tacks in arguing for its consideration. Neither works.

First, CTS invokes *Esch* in a conclusory fashion, arguing in a footnote that it could *sua sponte* supplement the record because, in CTS's view, the EPA had "hid[den] * * * the isotope analysis data" until the final rulemaking, depriving CTS of any "opportunity to comment on EPA's explanation," CTS Br. 35 n.6. A footnote is no place to make a substantive legal argument on appeal; hiding an argument there and then articulating it in only a conclusory fashion results in forfeiture. *See, e.g.*, *Bryant v. Gates*, 532 F.3d 888, 898 (D.C.

Cir. 2008) (argument made only in "single, conclusory statement" on appeal forfeited); *Hutchins v. District of Columbia*, 188 F.3d 531, 539-540 n.3 (D.C. Cir. 1999) (this court "need not consider cursory arguments made only in a footnote").

Perhaps the argument was conclusory because there is little to be said in support of it. CTS's concern over "hidden" data ignores that the EPA included the isotope data in the final administrative record. That is why it is not the allegedly hidden data that CTS seeks to add to the record, but its own expert's newly created analysis responding to that data.

More importantly, CTS's argument fails meaningfully to respond to the EPA's explanation that the report in question was not included in the record at the proposal stage because the data was too degraded for the distinct comparative analysis it had intended to perform and, for that reason, the EPA did not rely on the data to establish a hydraulic connection. *See Building Indus. Ass'n v. Norton*, 247 F.3d 1241, 1245-1246 (D.C. Cir. 2001) ("The APA generally obliges an agency to publish for comment the technical studies and data *on which it relies*.") (emphasis added).

Beyond that, the remedy for an alleged procedural violation of this sort is not the outright judicial displacement of agency analysis that CTS seeks, but rather the opportunity to comment on the data before the agency in the first instance, *see, e.g., American Radio Relay League, Inc. v. FCC*, 524 F.3d 227, 240 (D.C. Cir. 2008), a remedy for which CTS has not asked on appeal.

Second, CTS argues in its reply brief that its newly commissioned consultant's report and never-before-voiced specific criticisms of the EPA's isotope analysis are not, in fact, new arguments. Just stating the point disproves it. The

administrative process, moreover, is not an exercise in hair splitting. When it comes to listings under CERCLA, "the 'dialogue' between administrative agencies and the public 'is a two-way street[,]'" and "[j]ust as 'the opportunity to comment is meaningless unless the agency responds to significant points raised by the public,' so too is the agency's opportunity to *respond* to those comments meaningless unless the interested party clearly states its position." *Northside Sanitary Landfill, Inc. v. Thomas*, 849 F.2d 1516, 1520 (D.C. Cir. 1988) (quoting *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 35-36 (D.C. Cir. 1977)). Accordingly, the mere fact that the general topic of isotope analysis had been broached by the EPA as part of its own investigation does not relieve CTS of its obligation to "clearly state[] its position" regarding the analysis the EPA performed and any conclusions the EPA drew to that agency in the first instance. *Id*.

Specifically, if CTS felt that further comment on the EPA's isotope analysis were necessary after the EPA added the study to the final record, CTS could have petitioned the EPA for either reconsideration or a new rulemaking, *see Northside*, 849 F.2d at 1520-1521 & n.11 (citing 5 U.S.C. § 553(e)), or to reopen the notice-and-comment period, *see Anne Arundel*, 963 F.2d at 417. Alternatively, CTS could have pursued a procedural challenge arguing that the EPA's failure to include the isotope data in the record at the promulgation stage required that it be afforded an additional opportunity to comment on the data. CTS chose none of those routes, opting instead for an end run around the agency's substantive geological judgments in this court. We

cannot provide such administrative consideration of its arguments and evidence in the first instance.[5]

* * * * *

For the foregoing reasons, the petition for review is denied.

So ordered.

[5] At times, CTS seems to contend that the EPA's conclusion that the isotope data was too degraded to provide useful information was arbitrary and capricious. That argument fails too. Again, CTS made no attempt to raise any such criticisms before the agency through a petition for reconsideration or any other administrative mechanism following the promulgation of the final rule. *See Northside*, 849 F.2d at 1520-1521 & n.11.