

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued November 7, 2019

Decided July 28, 2020

No. 18-1325

MERITOR, INC.,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

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

Catherine E. Stetson argued the cause for petitioner. With her on the briefs were *Mitchell P. Reich*, *Heidi B. Friedman*, and *Joel Eagle*.

James R. Bieke, *C. Frederick Beckner III*, *Peter C. Tolsdorf*, *Steven P. Lehotsky*, and *Michael B. Schon* were on the brief for *amici curiae* the National Association of Manufacturers, et al., in support of petitioner. *Linda E. Kelly* entered an appearance.

John Thomas H. Do, Attorney, U.S. Department of Justice, argued the cause for respondent. With him on the brief was *Jonathan D. Brightbill*, Principal Deputy Assistant Attorney General. *Jon M. Lipshultz*, Attorney, entered an appearance.

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Before: MILLETT and KATSAS, *Circuit Judges*, and SENTELLE, *Senior Circuit Judge*.

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

MILLETT, *Circuit Judge*: The Environmental Protection Agency maintains a National Priorities List that identifies those hazardous waste sites in most urgent need of cleanup based on the threat that they pose to public and environmental health and to the public welfare. In 2018, the EPA added the Rockwell International Wheel & Trim facility and surrounding areas to the National Priorities List. Meritor, Inc., which has assumed Rockwell International Corporation's environmental liabilities for the facility, challenges the listing as arbitrary, capricious, and contrary to governing regulations. Meritor's main objection is that the EPA failed to take sufficient account of an already installed sub-slab depressurization system in determining the hazardousness of the site. Because the EPA's decision was reasonable and consistent with the governing regulatory provisions, we deny the petition for review.

I

A

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. §§ 9601 *et seq.*, “to address the growing problem of inactive hazardous waste sites throughout the United States.” *Eagle-Picher Indus., Inc. v. EPA*, 759 F.2d 922, 925 (D.C. Cir. 1985). CERCLA directs the EPA to develop “criteria for determining priorities among releases or threatened releases” of hazardous waste into the environment. 42 U.S.C. § 9605(a)(8)(A). Based on those determinations, the EPA must maintain a National Priorities List. *Id.*

§ 9605(a)(8)(B). That List “identifies those hazardous-waste sites considered to be the foremost candidates for environmental cleanup” based on “the relative risk or danger they pose to the public health, public welfare, or the environment.” *CTS Corp. v. EPA*, 759 F.3d 52, 55 (D.C. Cir. 2014).

The EPA has developed a set of regulations, known as the Hazard Ranking System, that it uses to evaluate whether, and to what degree, a site poses a risk to the environment or to human health and welfare. *See generally* 40 C.F.R. Part 300, App. A.

Under that scheme, the EPA evaluates up to four “pathways” through which hazardous substances can migrate: (1) groundwater, (2) surface water, (3) air, and (4) soil exposure. 40 C.F.R. Part 300, App. A § 2.1. The soil-exposure pathway includes analysis of the extent to which hazardous substances intrude from the subsurface. *Id.* In particular, the subsurface intrusion component evaluates the emanation (or potential emanation) of noxious vapors from the soil into occupied buildings. *Id.* § 5.2.0. That subsurface intrusion factor is the central focus of this case.

In evaluating each pathway, the EPA weighs three metrics: (1) the “likelihood of release” of hazardous waste into the environment, (2) the “waste characteristics” of those substances (such as the quantity, toxicity, mobility, persistence, capacity to degrade, or bioaccumulation potential), and (3) the “targets” of the hazardous waste, meaning who will suffer exposure, whether humans, animals, natural resources, or sensitive environments. 40 C.F.R. Part 300, App. A §§ 2.3–2.5.

Based on those metrics, the EPA assigns a numerical value to each pathway, which it then converts into a score between 0

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and 100 for the site as a whole. 40 C.F.R. Part 300, App. A § 2.1.1, 2.1.2 & Table 2-1. Sites scoring 28.5 or higher may be added to the List. 83 Fed. Reg. 46,408, 46,409 (Sept. 13, 2018).

Once a site is added to the National Priorities List, it becomes eligible for remedial action financed by the EPA's Superfund Program. *CTS Corp.*, 759 F.3d at 56; *see also* 42 U.S.C. § 9611. If the EPA chooses to conduct a cleanup, it may seek reimbursement from parties who are potentially responsible for contributing to the hazard, known as "Potentially Responsible Parties." *General Elec. Co. v. Jackson*, 610 F.3d 110, 114 (D.C. Cir. 2010) (citing 42 U.S.C. §§ 9604(a), 9607(a)(4)(A)).

B

From 1966 to 1985, the automotive division of Rockwell International Corporation manufactured wheel covers at a facility in Grenada, Mississippi, which we shall refer to as the Rockwell Facility. The Rockwell Facility borders a residential neighborhood, as well as a creek and agricultural land. The wheel-cover manufacturing process produced hazardous substances, including toluene, trichloroethylene (TCE), and cis-1,2-dichloroethene (DCE), which were stored on site. A 1994 investigation revealed that those operations had led to a plume of toluene and TCE collecting in the soil and groundwater under and around the Rockwell Facility.

Exposure to toluene or TCE can cause a range of health impairments. Short-term inhalation exposure can result in central nervous system dysfunction, leading to headaches, dizziness, confusion, and fatigue. Long-term exposure can cause even more serious health repercussions. Among other things, TCE has been shown to be carcinogenic to humans and

chronic exposure to high levels of toluene can cause ataxia and cerebral atrophy.¹

In 1985, Rockwell International sold the Rockwell Facility to another company (that is not a party to this suit). Years later, Rockwell International spun off its automotive division into a separate corporation called Meritor, Inc. As a result, while “Meritor never owned or operated the [Rockwell] Site[.]” J.A. 48 n.5, it contractually “assumed various environmental obligations in certain areas of the [Rockwell] Site[.]” J.A. 52. As Meritor confirmed at oral argument, those environmental obligations include assuming Rockwell International’s legal liabilities with respect to the Rockwell Facility. Oral Arg. Tr. 4:25–5:3 (“Meritor * * * took on the liabilities of Rockwell[.]” including those associated with “the Rockwell [S]ite.”).

More recent studies of the Rockwell Facility demonstrate the continued presence of hazardous waste, which has in turn harmed air quality in the area. J.A. 12–13, 17–18. In October 2016, the EPA’s study of indoor air quality in the Rockwell Facility’s main production building revealed elevated concentrations of toluene, TCE, and DCE. In April 2017, Meritor commissioned a study that found heightened levels of toluene and TCE beneath the surface.

¹ See United States EPA, *Toluene* (2016), <https://www.epa.gov/sites/production/files/2016-09/documents/toluene.pdf>; United States EPA, *Trichloroethylene* (2016), <https://www.epa.gov/sites/production/files/2016-09/documents/trichloroethylene.pdf>; see also Agency for Toxic Substances & Disease Registry, *1,2-Dichloroethene* (1996), <https://www.atsdr.cdc.gov/phs/phs.asp?id=462&tid=82> (discussing the potential adverse health effects of cis-1,2-dichloroethene).

That same year, Meritor installed a sub-slab depressurization system below the Rockwell Facility's main building. The depressurization system was designed to reduce the intrusion of contaminated air into the building by creating a pressure differential between the building and the underlying soil. Despite improvements in air quality following the installation of this system, the degree of contamination within the main building continued to exceed ambient levels. J.A. 585–586.

On September 13, 2018, after going through notice and comment rulemaking, the EPA added the Rockwell Facility and surrounding areas (“Rockwell Site”) to the National Priorities List based on the hazardous subsurface intrusion of toluene, TCE, and DCE. 83 Fed. Reg. at 46,411.

In evaluating the subsurface intrusion component of the soil exposure pathway, the EPA considered the usual three factors: the “likelihood of release” of hazardous waste, the “waste characteristics” of those substances, and the “targets” of such waste. 40 C.F.R. Part 300, App. A §§ 2.3, 2.4, 2.5.

With respect to the “likelihood of release” factor, the EPA either relies on an actual “observed exposure” or measures the “potential for exposure.” 40 C.F.R. Part 300, App. A §§ 5.2.1.1.1, 5.2.1.1.2. If the EPA documents an observed exposure, the “likelihood of release” is automatically assigned a maximum value of 550. *Id.* § 5.2.1.1. Here, the EPA found multiple instances of “observed exposure” based on indoor air samples taken in October 2016 and January 2017, before the sub-slab depressurization system was operative. So EPA assigned the maximum value of 550.

The EPA assigned a “waste characteristics” score of 56/100. That score was based on two elements: (1) the level of toxicity/degradation of the substances in question, and

(2) the hazardous waste quantity, which relates to the quantity of hazardous material found in regularly occupied structures. 40 C.F.R. Part 300, App. A §§ 2.4.1, 2.4.2, 5.2.1.2.

Finally, the EPA analyzed the “targets” factor, which accounts for populations and sensitive environments located near the contaminated area. The EPA began by selecting an “appropriate benchmark” for sorting workers into two tiers. Level I applies to individuals who occupy structures where the concentration of hazardous substances equals or exceeds the health benchmark. 40 C.F.R. Part 300, App. A § 5.2.1.3.1 & Table 5-20. Level II applies to individuals who are in structures or subunits where there is an observed exposure, but where the concentration of hazardous substances falls below the benchmark. *Id.*

Here, the EPA focused on the 217 full-time employees working at the Rockwell Facility at the time of the agency’s decision. Applying residential exposure assumptions, the EPA adopted a benchmark of 0.4 $\mu\text{g}/\text{m}^3$ for cancer risk based on TCE exposure and 2.0 $\mu\text{g}/\text{m}^3$ for non-cancer toxicological risk.² Sorting workers into these two categories yielded a score of 707.33 for the “targets” category.

Based on a complicated formula that we need not navigate, the EPA translated those three subcomponent scores into an overall hazard score of 50 for the Rockwell Site. That meant that based on the subsurface intrusion component alone, the Rockwell Site was well above the 28.5 threshold score for listing, and the EPA added it to the National Priorities List. Given that outcome, the EPA had no occasion to analyze the

² The EPA measures the concentration of toluene, TCE, and DCE in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Rockwell Site's potential listing under the air, surface water, or groundwater pathways.

II

We have jurisdiction to review the EPA's listing decisions under 42 U.S.C. § 9613(a). Meritor's admission that it has taken on former site owner Rockwell International's liability with respect to the Rockwell Site, Oral Arg. Tr. 4:25–5:3, is sufficient to establish the company's standing to challenge the listing as a possible Potentially Responsible Party. *See Mead Corp. v. Browner*, 100 F.3d 152, 155 (D.C. Cir. 1996) (finding standing where the corporation's status as a former owner of the property in question “would provide a plausible basis for a claim that it was a [Potentially Responsible Party]”); *see also CTS Corp.*, 759 F.3d at 58.

In reviewing the EPA's listing decision, we borrow the Administrative Procedure Act's standard of review. *Genuine Parts Co. v. EPA*, 890 F.3d 304, 311 (D.C. Cir. 2018) (reviewing listing decision under the APA standard because “CERCLA does not specify a standard of review applicable to EPA's NPL listing decisions”). As a result, the EPA's decision will be set aside only if it was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” *Carus Chem. v. EPA*, 395 F.3d 434, 441 (D.C. Cir. 2005) (quoting 5 U.S.C. § 706(2)(A)).

In conducting this review, we afford the EPA “significant deference” with respect to the “highly technical issues involved[.]” *Carus Chem.*, 395 F.3d at 441 (quoting *Bradley Mining Co. v. EPA*, 972 F.2d 1356, 1359 (D.C. Cir. 1992)). We are also mindful that the National Priorities List is meant to be a “rough list of priorities, assembled quickly and inexpensively.” *Id.* (quoting *Bradley Mining*, 972 F.2d at 1359); *see also Eagle-Picher Indus., Inc. v. EPA*, 759 F.2d 905,

911 (D.C. Cir. 1985) (The “major purpose” of the National Priorities List and the Hazard Ranking System “is to identify, quickly and inexpensively, sites that may warrant further action under CERCLA.”).

III

In adding the Rockwell Site to the National Priorities List, the EPA followed the well-established Hazard Ranking System process. The validity of that regulatory framework is not in dispute. Oral Arg. Tr. 7:15–8:8, 44:10–17. Meritor also does not challenge the Hazard Ranking System’s pathway-based approach, nor does it take issue with the inclusion of a subsurface intrusion component within the soil exposure pathway. Instead, Meritor argues that the EPA improperly applied the Hazard Ranking System to the Rockwell Site by (1) failing to account for the company’s mitigation efforts, (2) relying on improper benchmarks when analyzing the “targets” component, and (3) failing to follow the Hazard Ranking System’s tiered approach to analyzing the “waste characteristics” component. None of these arguments succeed.

A

At the outset, Meritor argues that the EPA acted arbitrarily and capriciously by evaluating the Rockwell Site based on measurements taken before the sub-slab depressurization system was installed.

This court previously “rejected the argument that the EPA must consider the effects of remedial measures in scoring a site under” the 1982 Hazard Ranking System. *Eagle-Picher Indus., Inc. v. EPA*, 822 F.2d 132, 149 (D.C. Cir. 1987); *see also Linemaster Switch Corp. v. EPA*, 938 F.2d 1299, 1306–1307 (D.C. Cir. 1991). But, according to Meritor, the “express language of the” *current* Hazard Ranking System strips away

the EPA's discretion to disregard remedial measures. Meritor Br. 22, 24–26; Reply Br. 8; *see also* Oral Arg. Tr. 7:15–25. Rather, Meritor argues, the operative Hazard Ranking System regulations require consideration only of toxic emissions occurring after the mitigation system was installed.

In support of this position, Meritor points to two portions of the Hazard Ranking System that expressly account for the presence of mitigation measures. Meritor Br. 24 (citing 40 C.F.R. Part 300, App. A §§ 5.2.1.1.2.1 & Table 5-12, 5.2.1.3.2.3 & Table 5-21). But the EPA had no need to reach or to rely on either of those provisions in this case.

First, Meritor is correct that, when assessing the *potential* for exposure (in the course of determining the likelihood of a release of hazardous waste), the EPA assigns each building a structural containment value between 0 and 10 based on a number of factors. 40 C.F.R. Part 300, App. A § 5.2.1.1.2.1 & Table 5-12. One of those factors is whether a mitigation system has been installed. *Id.*

But the EPA had no occasion to evaluate the potential for exposure (and so to consider Meritor's installation of a sub-slab depressurization system) because the agency documented an actual, observed exposure at the site. *See* 40 C.F.R. Part 300, App. A § 5.2.1.1.1. Sensibly enough, the regulations do not require calculating the "potential" for exposure when the reality of actual exposure has already been documented. *Res ipsa loquitur*. Nor do the regulations factor in abatement efforts when evaluating whether there has been an observed exposure. *See id.* §§ 2.3 Table 2-3, 5.2.1.1.1. That direct observation is why, under the regulations, the EPA automatically assigned the maximum score of 550 for the "likelihood of release" component without regard to mitigation measures. *See id.* § 5.2.1.1.1.

Second, the Hazard Ranking System requires the EPA, when it assesses the “population within an area of subsurface contamination” component of the “targets” metric, to weight the number of occupants based on whether the building has a mitigation system installed. 40 C.F.R. Part 300, App. A § 5.2.1.3.2.3 & Table 5-21; J.A. 4.

But in this case, the EPA never relied on the “population within an area of subsurface contamination” factor, so it had no occasion to look at mitigation measures through that lens. And by excluding those points from the computation, the EPA’s analysis necessarily resulted in a *lower or equal* overall score for the “targets” metric. *See* 40 C.F.R. Part 300, App. A § 5.2 Table 5-11. Meritor can hardly complain about the EPA’s failure to look at other factors that would have, at best, left the Rockwell Site’s final score right where it was and, at the worst for Meritor, resulted in an even higher score.

Third, Meritor backs off in its reply brief from its initial assertion that the listing decision’s failure to consider the mitigation measure violated the “the express language of the [Hazard Ranking System],” Meritor Br. 22. Instead, Meritor argues in reply that the regulations’ sporadic references to mitigation systems in some factors implicitly mandate the consideration of mitigation systems at every step and for every factor in the analysis, Reply Br. 4.

But that would amend rather than apply the existing regulatory scheme. Nothing in the text of the regulations imposes such a pervasive requirement to factor in mitigation efforts. To the contrary, the Hazard Ranking System’s selective inclusion and omission of mitigation systems as a consideration suggests “that the omission” of any reference to mitigation systems in other “context[s] was deliberate.” *Council for Urological Interests v. Burwell*, 790 F.3d 212, 221

(D.C. Cir. 2015) (applying that principle in a statutory construction case); *see also Yonek v. Shinseki*, 722 F.3d 1355, 1359 (Fed. Cir. 2013) (“Where an agency includes particular language in one section of a regulation but omits it in another[,] [courts] generally presume[] that the agency acts intentionally and purposely in the disparate inclusion or exclusion.”) (formatting modified); *Atlas Tel. Co. v. Oklahoma Corp. Comm’n*, 400 F.3d 1256, 1265 (10th Cir. 2005) (similar).

It certainly was not arbitrary and capricious for the EPA to apply its regulations as written.

B

Meritor next argues that the EPA acted arbitrarily by relying on a residential health benchmark when evaluating the “targets” metric.

The Hazard Ranking System’s categorization of occupied structures is multilayered. Bear with us.

The EPA designates any structure with an observed exposure as Level I if the hazardous substance’s concentration inside equals or exceeds the “appropriate benchmark[.]” 40 C.F.R. Part 300, App. A § 5.2.1.3.1. If the concentration of a hazardous substance triggers an observed exposure, “but do[es] not equal or exceed the appropriate benchmark[.]” the agency designates the structure as Level II. *Id.*³

The relevant benchmarks are the “health-based benchmarks from Table 5-20.” 40 C.F.R. Part 300, App. A § 5.2.1.3.2. That Table directs the agency to use the

³ This same measurement scheme applies to partitioned subunits within a structure. 40 C.F.R. Part 300, App. A § 5.2.1.3.1.

“[s]creening concentration for cancer corresponding to” a one-in-a-million risk of cancer. *Id.* § 5.2.1.3.2 Table 5-20. It also instructs the EPA to select a benchmark “for noncancer toxicological responses” caused by oral or inhalation exposure. *Id.*

Once the EPA categorizes each building that has an observed exposure as either Level I or Level II, it divides the number of occupants in each structure by three if they are full-time workers or by six if they are part-time workers. 40 C.F.R. Part 300, App. A §§ 5.2.1.3.2.1, 5.2.1.3.2.2. The resulting number is then multiplied by 10 for the Level I category. *Id.* § 5.2.1.3.2.1. The Level II figure is *not* multiplied by ten. *Id.* § 5.2.1.3.2.2. These modified Level I and Level II values are summed, along with the “population within the area(s)” rating, to calculate the “population” score for the “targets” metric. *Id.* § 5.2.1.3.2.4.⁴

When selecting the appropriate Hazard Ranking System cancer and non-cancer risk benchmarks, the EPA relies on an exposure scenario “consistent with a residential individual * * * across all * * * pathways[,] as this is most protective.” J.A. 648. Such residential health benchmarks are based on the assumption that the occupants are exposed to the hazardous substance “24 hours per day” and “350 days per year” for a duration of 26 years. J.A. 652. Applying this approach, the EPA selected TCE benchmarks of 0.4 µg/m³ for

⁴ The “population within the area(s)” subcomponent is typically added to the modified Level I and Level II values to obtain the overall population score. 40 C.F.R. Part 300, App. A § 5.2.1.3.2.4. The EPA did not, however, calculate that subcomponent for the Rockwell Site, making that score effectively zero.

cancer risk and $2.0 \mu\text{g}/\text{m}^3$ for the risk of a toxicological response.⁵

In Meritor's view, the Hazard Ranking System's mandate that the EPA select an "appropriate benchmark," 40 C.F.R. Part 300, App. A §§ 5.2.1.3.1, 5.2.1.3.2, requires the agency to adopt site-specific exposure assumptions for cancerous and toxic health risks. Meritor Br. 38–41. In particular, Meritor argues, the EPA should have used an industrial, rather than residential, health benchmark because the employees did not reside at the Rockwell Facility full time. Rather, they worked "8-hour shifts" for "five to seven days per week." J.A. 41. So Meritor advocates for the assumption that workers are exposed 8 hours per day and 250 days per year for 25 years. Meritor Br. 37 (citing J.A. 652).

Meritor's argument is unsupported by either the text or the structure of the Hazard Ranking System.

First, nothing in the text of the Hazard Ranking System expressly instructs the EPA to use site-specific exposure assumptions on the front end of the process when it is selecting the appropriate health benchmarks. The regulation, instead, instructs the EPA to use "health-based benchmarks" as set out in Table 5-20. 40 C.F.R. §§ 5.2.1.3.1, 5.2.1.3.2 & Table 5-20. That Table directs the EPA to consider both toxicological and carcinogenic benchmarks and, for cancer-related risks, establishes a one-in-a-million risk of cancer as the appropriate threshold. *Id.* The benchmark selection regulation thus makes no mention of site-specific characteristics, such as residential

⁵ The EPA found that the DCE and toluene concentrations in the main building did not exceed the selected residential benchmarks, so the choice between a residential and an industrial benchmark was of no consequence as to those substances.

or industrial use. Nor does it mandate that the EPA adopt any particular exposure assumptions.

Second, the Hazard Ranking System accounts for the lower exposure faced by workers relative to full-time residents on the back end of its calculation. Once the occupants are sorted into either Level I or Level II, the EPA divides the number of people by three if they are full-time workers and by six if they are part-time workers. *See* 40 C.F.R. Part 300, App. A §§ 5.2.1.3.2.1, 5.2.1.3.2.2. This weighting accounts for the fact that full-time workers and part-time workers spend approximately one-third or one-sixth of the day at work respectively. UNITED STATES EPA, TECHNICAL SUPPORT DOCUMENT FOR U.S. EPA'S FINAL RULE: ADDITION OF A SUBSURFACE INTRUSION COMPONENT TO THE HAZARD RANKING SYSTEM 62 (2016) ("2016 TECHNICAL SUPPORT DOCUMENT").

So at bottom, because the Hazard Ranking System already accounts for the workers' reduced hours of exposure relative to residents, the EPA reasonably relied on residential health exposure assumptions when selecting the appropriate health benchmarks. In fact, because the Hazard Ranking System requires those divisions by three or six regardless of which health benchmark is used, 40 C.F.R. Part 300, App. A §§ 5.2.1.3.2.1, 5.2.1.3.2.2, if the EPA had used an industrial health benchmark as Meritor proposes, it would have *twice* reduced the "targets" score based on worker status. Nothing in the Hazard Ranking System endorses, much less mandates, such double discounting.

Beyond that, the EPA's use of residential exposure assumptions is reasonable.

For starters, when making listing decisions, the EPA uniformly uses residential exposure assumptions because it

favours a more “conservative (i.e. protective) approach[.]” J.A. 650. Erring on the side of caution in evaluating the toxigenic effects of hazardous substances on people is not unreasonable. See *Board of Regents of the Univ. of Wash. v. EPA*, 86 F.3d 1214, 1219 (D.C. Cir. 1996) (“It is not on its face unreasonable for the EPA to strike the balance by erring on the side of over-inclusion at the listing stage and on the side of under-inclusion at the remedial phase[.]”); see also *Carus Chem.*, 395 F.3d at 441 (The National Priorities List is meant to be a “rough list of priorities, assembled quickly and inexpensively.”) (internal quotation marks omitted).

In addition, when selecting health benchmarks, the EPA generally uses uniform residential exposure assumptions across *all* sites and pathways. J.A. 648–650. That ensures that the Hazard Ranking System properly measures the “relative rather than absolute risk” of different hazardous waste sites in identifying the priority sites. 40 C.F.R. Part 300, App. A § 1.0; see also 42 U.S.C. § 9605(a)(8)(B) (National Priorities List is intended to identify sites that are a “priorit[y]” for remedial action).

Finally, by using the more conservative benchmark, the agency accounts for both present and possible “future land-use conditions.” J.A. 650 (The EPA assumes “long-term/chronic exposures” because that is “the reasonable maximum exposure * * * expected to occur under both current and future land-use conditions.”).

Because the EPA has reasonable policy reasons for starting out with a residential health benchmark, and its analysis properly adjusted the Rockwell Site’s score to account for workers’ reduced hours of exposure, the agency’s use of a residential health benchmark in calculating the “targets” score passes muster.

C

Finally, Meritor argues that the EPA incorrectly calculated the “waste characteristics” component of the subsurface intrusion pathway. The “waste characteristics” score has two components: “toxicity/degradation” and “waste quantity.” 40 C.F.R. Part 300, App. A §§ 2.4.2, 5.2.1.2. Meritor’s challenge aims at the latter—EPA’s measurement of the waste quantity. Meritor Br. 47–51.

The Hazard Ranking System creates a tiered approach to calculating the quantity of waste in structures.

Under Tier A, the EPA calculates the “mass of constituents found in [a] regularly occupied structure[] where [an] observed exposure has been identified.” 40 C.F.R. Part 300, App. A §§ 2.4.2.1.1, 5.2.1.2.2. If the EPA is able to estimate the quantity of waste under this method with “reasonable confidence,” the waste quantity inquiry ends there. *Id.* §§ 2.4.2.1.1, 2.4.2.1.2, 5.2.1.2.2. If not, the EPA turns to Tier B.

Under Tier B, the EPA must calculate the “flow-through volume” of the structure. 40 C.F.R. Part 300, App. A §§ 2.4.2.1.1, 2.4.2.1.2, 5.2.1.2.2. That is the amount of hazardous substances “that flows into the structure from the subsurface.” 2016 TECHNICAL SUPPORT DOCUMENT, *supra*, at 42.

If that computation proves infeasible, the EPA moves to Tier C, where it must estimate the volume of occupied portions of the structure. 40 C.F.R. Part 300, App. A §§ 2.4.2.1.3, 5.2.1.2.2; *see also* 2016 TECHNICAL SUPPORT DOCUMENT, *supra*, at 43. From this, the agency can estimate the “possible amount of hazardous substances” in occupied areas of the

building. *See* 2016 TECHNICAL SUPPORT DOCUMENT, *supra*, at 41.

And if all else fails, the EPA turns to Tier D, which allows the agency to derive a waste quantity score based on the structure's floor area. 40 C.F.R. Part 300, App. A §§ 2.4.2.1.3, 2.4.2.1.4, 5.2.1.2.2. The EPA applied Tier D to calculate the waste quantity in the Main Building at the Rockwell Site.

Meritor claims that the EPA should have used Tier A to calculate waste quantity once the sub-slab depressurization system was installed. This was so, the company argues, because the sub-slab depressurization system ensured that the concentration of TCE, DCE, and toluene stayed within a narrow range. That, in turn, eliminated the high variance in concentrations that the EPA cited as an obstacle to calculating the mass of constituents with "reasonable confidence," as Tier A requires. J.A. 35. Meritor also argues that the EPA erroneously stated that it needed air flow data to calculate the mass of hazardous substances under Tier A.

Both of those arguments are forfeited because Meritor did not raise them before the EPA. The law is settled that those who challenge a National Priorities List placement "must present their claims clearly and specifically to the agency before raising them in a petition for review." *See CTS Corp.*, 759 F.3d at 60 (quoting *Kent County v. EPA*, 963 F.2d 391, 399 (D.C. Cir. 1992)); *see also Honeywell Int'l, Inc. v. EPA*, 372 F.3d 441, 449, 451 (D.C. Cir. 2004); *Linemaster Switch*, 938 F.2d at 1308.

Meritor does not dispute its duty to present its challenges first to the EPA. It argues instead that it sufficiently raised its objection to the Tier D analysis by informing the agency that "it had violated rules 'requiring EPA to consider an active vapor mitigation system * * * when calculating the hazardous

waste quantity.” Reply Br. 24 (omission in original) (quoting J.A. 48 n.7); *see also* Oral Arg. Tr. 31:5–23.

That argument, though, only advocated for consideration of the sub-slab depressurization system somewhere in the process of the “waste characteristics” analysis. It did not put the EPA on notice of Meritor’s specific objection to the tier used in the agency’s waste quantity analysis. *See CTS Corp.*, 759 F.3d at 60 (“[P]arties opposing NPL listing must present their claims clearly and specifically to the agency before raising them in a petition for review.”); *Carus Chem.*, 395 F.3d at 441 (Parties seeking to challenge agency action must first raise their objections with “reasonable specificity during the period for public comment[.]”) (internal quotation marks omitted).

IV

For all of those reasons, the petition for review is denied.

So ordered.