United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued November 5, 2010   Decided January 14, 2011

No. 09-1269

US MAGNESIUM, LLC,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

On Petition for Review of a Final Action
of the Environmental Protection Agency

Laurence S. Kirsch argued the cause for petitioner. With him on the briefs were *Valerie E. Ross, David W. Tundermann,* and *M. Lindsay Ford*.

T. Monique Jones, Attorney, U.S. Department of Justice, argued the cause and filed the brief for respondent.

Before: SENTELLE, *Chief Judge,* GARLAND, *Circuit Judge*, and WILLIAMS, *Senior Circuit Judge*.

Opinion for the Court filed by *Senior Circuit Judge* WILLIAMS.

WILLIAMS, *Senior Circuit Judge*: The National Priorities List ("NPL") is a list of places, commonly known as "superfund sites," considered national priorities for environmental remediation because of known or threatened releases of hazardous substances. The Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. §§ 9601-75, requires the President to establish "criteria for determining priorities among releases or threatened releases [of hazardous substances] throughout the United States for the purpose of taking remedial action . . . ." 42 U.S.C. § 9605(a)(8)(A). The Environmental Protection Agency developed the Hazard Ranking System ("HRS") to fulfill that mandate. 40 C.F.R. § 300.425(c)(1); see generally *Eagle-Picher Industries Inc. v. EPA*, 759 F.2d 905, 909-11 (D.C. Cir. 1985). The HRS is the principal guide used by the EPA to place sites on the NPL. 40 C.F.R. Pt. 300, App. A, § 1.1.

This case concerns the NPL listing of a magnesium plant located in Tooele County, Utah, approximately 40 miles west of Salt Lake City and adjacent to the Great Salt Lake. The plant, which is now owned by petitioner US Magnesium LLC ("USM"), has produced molten magnesium since 1972, creating chlorine gas and hydrochloric acid as by-products. A network of ditches carries waste from the plant to an active waste pool. Just beyond that pool is an inactive waste pool, which was previously a recipient of waste.

The EPA completed an HRS evaluation for the US Magnesium site in 2008. The HRS requires the agency to analyze four "pathways": ground water migration, surface water migration, soil exposure, and air migration, and to plug the resulting individual pathway scores into a formula to obtain the site score. 40 C.F.R. Pt. 300, App. A, § 2.1.1. The EPA calculated scores for two out of these four possible "pathways"—air migration and soil exposure. Based on

these, the EPA computed a total HRS score of 59.18 for the US Magnesium site. Because this score is above the threshold for inclusion on the NPL, the EPA published a Proposed Rule proposing to list USM on the NPL. National Priorities List, Proposed Rule No. 49, 73 Fed. Reg. 51,393, 51,393 (Sept. 3, 2008). After receiving and responding to comments on the proposed listing, the EPA added the site to the NPL. National Priorities List, Final Rule No. 48, 74 Fed. Reg. 57,085, 57,087 (Nov. 4, 2009).

USM challenges the NPL listing as "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law." 5 U.S.C. § 706(2)(A); *Board of Regents of University of Wash. v. EPA*, 86 F.3d 1214, 1217 (D.C. Cir. 1996). It claims that the EPA made four errors in calculating an HRS score and that if these errors were corrected, the USM site's HRS score would fall below the 28.5 threshold for listing on the NPL. Because the score assigned to the USM site is far above the 28.5 cutoff for inclusion on the NPL, USM would have to prevail on its first alleged error *and* some combination of the other three alleged errors in order for the NPL listing to be arbitrary or capricious. (If we were to remand based on all the other three alleged errors, the site would still receive a total score of at least 50—21.5 more than the minimum score for inclusion on the NPL.) Although placement on the NPL does not require any action or determine any party's liability for cleanup costs, it may inflict damage on business reputation and cause a loss in property values. *Kent County v. EPA*, 963 F.2d 391, 394 (D.C. Cir. 1992).

We are not persuaded that the EPA in fact erred in the first decision element claimed by USM to have been erroneous—the scoring of multiple "sources" for the air pathway.

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The essence of USM's objection to the EPA's scoring of the air pathway is that the EPA multiplied the *plant*'s rather high "release" score by the site's total "waste characteristics factor," a factor that here was driven overwhelmingly by the *ponds'* relatively high waste quantity scores.[1] Obviously such a procedure has the potential to make a site's score artificially higher than that of a factually far more dangerous site in which release and quantity were, say, middling at a single source. It is a bit like choosing the winner of the "best team" award at a track meet by multiplying each team's highest score in any single event by the team's total number of competitors (no matter how well or badly all other team members may have performed). As we shall see, however, the HRS directs precisely this procedure, and the EPA Hazard Ranking System Guidance Manual ("HRS Manual")[2] invoked by USM neither contradicts it nor suggests a different treatment.

In scoring the air pathway, the EPA evaluated four sources: the plant, the active waste pond, the inactive waste pond, and three anode dust boxes located in the manufacturing area of the plant. HRS Documentation Record, U.S. Magnesium, EPA ID No. UTN000802704, (Nov. 2009) ("HRS Documentation Record") at 10, 13, 16, 19, Joint Appendix ("J.A.") 378, 381, 384, 387. USM appears to

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[1] In accordance with the HRS, the EPA did not calculate a potential to release score for the ponds. HRS § 6.1.2. USM assumes, as will we, that the potential to release score for the ponds would be negligible.

[2] United State Environmental Protection Agency, Hazard Ranking System Guidance Manual, Interim Final, Publication No. 9345.1-07, EPA 540-R-92-026 (Nov. 1992).

suggest that instead of using the system summarized above the EPA ought to have scored each of the four sources for the air migration pathway separately and used the highest of the four individual source scores as the value for the air pathway. Appellant's Br. at 35-37.

But contrary to USM's contention, the HRS clearly contemplates that a pathway score for a site be computed by the system of multiplication across sources to which USM objects. A pathway is defined as a "[s]et of HRS factor categories combined to produce a score to measure relative risks posed by a *site* in one of four environmental pathways . . ." 40 C.F.R. Pt. 300, App. A, § 1.1 (emphasis added here and elsewhere in quotations from the HRS). A site "may include multiple sources and may include the area between sources." *Id*. A source is "any area where a hazardous substance has been deposited, stored, disposed, or placed . . . ." *Id*. The air pathway score is calculated by multiplying three factor categories: (1) likelihood of release, (2) waste characteristics, and (3) "targets." *Id*. § 6.0. The targets score, which represents threats to nearby residents, natural resources, or ecosystems, is not implicated in the error alleged here.

The likelihood of release score is based either on an "observed release" or on a score for "potential to release." *Id*. § 6.1. The waste characteristics score is obtained by multiplying a score for toxicity/mobility and a score for hazardous waste quantity. *Id*. § 6.2.3. USM's complaint, in essence, is that the EPA multiplied a likelihood of release score based on an observed release from the plant by a waste characteristics score based on waste quantity values from the waste pools.

A likelihood of release score of 550 is assigned for the air pathway if an "observed release" is documented for the site.

Id. § 6.1.1. Otherwise, a "potential to release" score must be calculated and used as the likelihood of release value. *Id*. § 6.1.3. An "observed release" may be established by "demonstrating that the *site* has released a hazardous substance to the atmosphere." *Id*. § 6.1.1. The HRS plainly requires the EPA to assign a likelihood of release of 550 for *any* observed release into the atmosphere at the site. This is exactly what the EPA did—based on direct observations of release of chlorine gas from the plant, it assigned a score of 550. HRS Documentation Record at 32-33, J.A. 400-01. This step is uncontested.

The waste characteristics score is the product of two separate values: waste toxicity/mobility and waste quantity. The HRS instructs the agency to "[e]valuate only those hazardous substances available to migrate from the *sources at the site* to the atmosphere" and "assign a toxicity factor value, a mobility factor value and a combined toxicity/mobility factor value" for "each hazardous substance." 40 C.F.R. Pt. 300, App. A, §§ 6.2, 6.2.1. Once all sources have been scored, the agency is to "[u]se the hazardous substance with the highest toxicity/mobility factor value to assign the value to the toxicity/mobility factor for the air migration pathway." *Id*. § 6.2.1.3. The EPA evaluated both PCBs and Hexachlorobenzene, determined that the latter had a higher toxicity/mobility score and used its score of 1,000 for the air pathway calculation. HRS Documentation Record at 34, J.A. 402. This scoring element is also uncontested.

The HRS instructs the EPA to

> Evaluate the hazardous waste quantity factor by first assigning *each source* (or area of observed contamination) a source hazardous waste quantity value as specified below. *Sum* these values to obtain the

hazardous waste quantity factor value for the pathway being evaluated.

40 C.F.R. Pt. 300, App. A, § 2.4.2. For three pathways, including the air pathway, the agency is to "assign a source hazardous waste quantity value to *each source*" including only sources "having a containment factor value greater than 0 for the pathway being evaluated," an exclusion in essence for sources that effectively wall hazardous substances off from escape. *Id*. §§ 2.4.2.1, 6.1.2.1.1, 6.1.2.2.1. In order to calculate the final hazardous waste quantity factor value for the site, the agency must "[s]um the source hazardous waste quantity values assigned to *all* sources . . . for the pathway being evaluated . . ." *Id*. § 2.4.2.2.

Here the EPA found that each of the four sources had containment values of greater than zero for the air pathway. HRS Documentation Record at 11, 14, 17, 19, J.A. 379, 382, 385, 387. It assigned quantity values for both waste pools. *Id*. at 34, J.A. 402. It also found that the hazardous waste quantity for the anode dust boxes and for the plant stack were greater than zero but that the total amount was unknown. *Id*. Therefore, as HRS § 2.4.2 explicitly directs, it added the quantity values for the two waste ponds to obtain the waste quantity factor value for the pathway. *Id*. It then multiplied the toxicity/mobility factor value by the waste quantity factor value to obtain a waste characteristics score as provided by HRS § 6.2.3. *Id*.

The remainder of the calculation was purely mechanical. The EPA entered the likelihood of release score and the waste characteristics score in the air migration pathway scoresheet, HRS Table 6-1. *Id*. It calculated the final air pathway raw score by multiplying the likelihood of release score, the waste characteristics score and the targets score and dividing the

product by 82,500. 40 C.F.R. Pt. 300, App. A, § 6.4, Table 6-1.

The HRS thus requires the EPA to score likelihood of release on the basis of observed releases from *any* source on the site, and to score waste quantity on the basis of the *sum* of scores from *all sources* at the site. These two scores are eventually multiplied, even in cases where the observed release is from a source with a trivial waste quantity. The same system prevails when an "observed release" cannot be shown and the agency relies on "potential to release." See 40 C.F.R. Pt. 300, App. A, § 6.1.2. The multiplication is not a product of agency discretion, but an artifact of the scoring methodology mandated by the HRS. So to the extent that USM's claim asserts arbitrary application of the HRS, it must fail.

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USM's argument that the EPA violated the letter or spirit of the source aggregation provisions in the HRS Manual is similarly unavailing. The HRS Manual provides detailed guidance on how to apply the HRS. The section invoked by USM, § 4.2, discusses how to score sites with multiple sources. It defines source aggregation as "[t]he treatment of two or more areas that could be considered individual sources as one discrete source." HRS Manual § 4.2 at 49. And it goes on to list various criteria appropriate to consider when deciding whether to aggregate sources. *Id*. at 51. In general, the EPA may aggregate sources that are very similar when doing so would have little impact on the final score. *Id*. The HRS Manual suggests that source aggregation is desirable when this would have no impact on the overall HRS score "because this should limit the number of separate sources evaluated." *Id.*

In this case, the EPA aggregated three anode dust boxes by treating them as one source for the purpose of scoring. HRS Documentation Record at 16-18, J.A. 384-86. In the end this aggregation had no material effect on the USM plant's score. It did, however produce a modest economy of effort: the EPA took only two samples, whereas if each dust box had been treated as a single source it would have had to take at least one for each dust box. HRS § 2.2.2. Similarly, because of the way scoring for "containment" proceeds, if the EPA aggregated a source with zero containment with one with a positive containment factor value, the positive finding would, in most cases, trump the zero for the whole aggregated source. See HRS § 6.1.2.1.1, Table 6-3. Aggregation in such a case would risk violating the precept against any aggregation that is likely to affect the score. HRS Manual § 4.2 at 51.

Here the EPA, though aggregating the dust boxes, did not aggregate that "source" with the other three—the plant stack and the two waste ponds. Rather, it analyzed each of these four sources individually and then applied the HRS scoring methodology to score the site as a whole. USM's quarrel is not with failure to apply the Manual, or failure to apply it correctly, but with the process explicitly mandated in the HRS and not contradicted by any passage in the Manual.

USM appears to believe that HRS Manual § 4.2 counsels a policy inconsistent with USM's scoring of the USM site. But § 4.2 recognizes that some components of the HRS pathway score are created by *adding* values for all sources at a site (such as the waste quantity score under HRS § 2.4.2),[3] while other components take the highest value for any source

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[3] In a typo, the EPA uses "hazardous waste quality" when its citation to the HRS makes clear that it intends "hazardous waste quantity." See Manual § 4.2 at 50.

at the site (such as the potential to release score for the air pathway under HRS § 6.1.2). *Id*. We can find nothing in the Manual that contradicts the clear language of the HRS.

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USM presents its claim as one of arbitrary application of the rules to its site. Certainly if the HRS gave the EPA a choice of air migration pathway formulas and the EPA had exercised discretion to use this formula rather than another formula under these circumstances, that decision might well have been arbitrary and capricious. But the HRS gives the EPA no discretion to alter the air migration pathway score formula when it produces peculiar results (or, indeed, on any other ground).

In a sense, then, the real thrust of USM's argument seems more properly directed at the HRS regulations themselves. Here it has not posed a challenge to the rationality of the HRS regulation. See Oral Arg. Recording at 5:55-6:15, 15:44-16:24. Nor does it argue that the EPA should have declined to place the USM site on the NPL notwithstanding a HRS score of over 28.5. Since the EPA's scoring was consistent with the HRS, we are left with no theory on which we may overturn the EPA's decision.

We note that CERCLA imposes exceptional limits on efforts to attack the EPA's regulations in this field:

> Review of any regulation promulgated under this chapter may be had upon application by any interested person only in the Circuit Court of Appeals of the United States for the District of Columbia. Any such application shall be made within ninety days from the date of promulgation of such regulations. Any matter with respect to which review could have been obtained under

this subsection shall not be subject to judicial review in any civil or criminal proceeding for enforcement or to obtain damages or recovery of response costs.

42 U.S.C. § 9613(a). We have said that this leaves in place a party's usual ability to petition for a rulemaking to revise such regulations, see *RSR Corp. v. EPA*, 102 F.3d 1266, 1270 (D.C. Cir. 1997), for the denial of which it could obtain judicial review, see *Massachusetts v. EPA*, 549 U.S. 497, 527-28 (2007). In addition, even under § 9613 there may be some room to challenge a regulation when litigating its application. See *RSR Corp.*, 102 F.3d at 1269-70; see also *NLRB Union v. FLRA*, 834 F.2d 191, 195-97 (D.C. Cir. 1987); cf. *National Air Transportation Ass'n v. McArtor*, 866 F.2d 483, 486-87 (D.C. Cir. 1989). Regardless of whether a challenge paralleling USM's "arbitrariness" contention here but framed as a statutory attack on the HRS would be permissible under such cases, USM failed to meet the prerequisite of raising the issue before the EPA. See *Linemaster Switch Corp. v. EPA*, 938 F.2d 1299, 1308-09 (D.C. Cir. 1991); Letter from M. Lindsay Ford, et al., Counsel to US Magnesium LLC to United States Environmental Protection Agency (Nov. 24, 2008), J.A. 129-272.

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Because the EPA followed the HRS precisely in scoring the air migration pathway and affirmation of the EPA on that first issue results in a score above the cut off for inclusion on the NPL, listing of the USM site on the NPL was not arbitrary or capricious. The petition for review is therefore

Denied.