United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued April 5, 1993 Decided May 11, 1993

No. 92-1085

TEX TIN CORPORATION,
PETITIONER

v.

U.S. ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

Petition for Review of an Order of the
United States Environmental Protection Agency

Stephen Shulman argued the cause for petitioner. With him on the briefs were *Laurence S. Kirsch* and *Joel Kaufman*. *James W. Moorman* also entered an appearance for petitioner.

George B. Wyeth, Attorney, Office of General Counsel, U.S. Environmental Protection Agency, argued the cause for respondent. With him on the brief were *Eileen T. McDonough,* Attorney, Department of Justice, *Raymond Ludwiszewski,* Acting General Counsel, and *Earl Salo,* Assistant General Counsel, U.S. Environmental Protection Agency. *Barry M. Hartman,* Attorney, Department of Justice, also entered an appearance for respondent.

Before: D.H. GINSBURG, SENTELLE, and RANDOLPH, *Circuit Judges.*

Opinion for the court filed by *Circuit Judge* RANDOLPH.

RANDOLPH, *Circuit Judge:* The Comprehensive Environmental Response, Compensation and Liability Act of 1980 directed the President to establish a list of "national priorit[y]" sites most in need of federal remedial attention. *See* 42 U.S.C. § 9605(a)(8)(B). The Environmental Protection Agency then promulgated regulations creating a mathematical model called the Hazard Ranking System (HRS), 40 C.F.R. pt. 300, app. A, to determine the sites deserving of inclusion on the National Priorities List (NPL), *see* 40 C.F.R. pt. 300, app. B. Using the HRS, the Agency evaluates the observed or potential release of hazardous substances into surface water, groundwater and air and quantifies the environmental risks a site poses. The risk and magnitude of hazardous release into each of these three pathways is separately rated and then combined into an aggregate score; all sites receiving an HRS score of 28.50 or greater are listed on the NPL. *See generally Bradley Mining Co.*

v. United States Environmental Protection Agency, 972 F.2d 1356, 1357-58 (D.C. Cir. 1992).

The Agency first declared its intention to include petitioner Tex Tin's Texas City, Texas, smelting facility on the NPL in August 1990. *See* 55 Fed. Reg. 35,502, 35,508 (1990). Tex Tin sought expedited review of that decision in a petition challenging "the criteria EPA used for the air route score" component of the HRS. *See Tex Tin Corp. v. United States Environmental Protection Agency,* 935 F.2d 1321, 1323 (D.C. Cir. 1991) (per curiam) ("*Tex Tin I* "). According to Tex Tin, the Agency had not sufficiently supported its claim that arsenic, present in tin slag waste piles on the site, could "reasonably be expected to be transported away from the facility via the air route." *See* 40 C.F.R. pt. 300, app. A, § 5.2 (1990). If the "reasonably ... expected" standard had not been met, the Agency erred in considering arsenic's toxicity when it computed the air-route component of the HRS. This court viewed the basis for the Agency's treatment of the arsenic as obscure and remanded "for a reasoned explanation for the conclusion that the arsenic is reasonably likely to be transported via the air route." 935 F.2d at 1324.[1]

On remand, the Agency issued a nine-page "Explanation" defending its initial treatment of the tin-based arsenic, *see* U.S. Environmental Protection Agency, Memorandum Re: Explanation of Tex Tin NPL Listing (Aug. 5, 1991) ("Agency Explanation"), and invited the company to comment. After Tex Tin submitted a voluminous legal and scientific response, the Agency placed in the administrative record a further justification of its position. *See* U.S. Environmental Protection Agency, Memorandum Re: Response to Comments of Tex Tin Corp. (Dec. 6, 1991) ("Agency Response"). Tex Tin then brought the current petition for review presenting the question whether the Agency adequately responded to our remand order.[2]

Because the NPL represents only a "rough list" of priority sites, *Eagle-Picher Industries, Inc.*

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[1]In *National Gypsum Co. v. U.S. Environmental Protection Agency,* 968 F.2d 40, 41 (D.C. Cir. 1992), a different panel of this court inaccurately cited *Tex Tin I* as a case involving the vacating of an NPL listing decision.

[2]The Tex Tin facility's initial HRS score was 38.43. If the air-route score used in that calculation were eliminated entirely from the original figures, the HRS score would apparently drop to 17.87, significantly below the NPL cut-off. The *Tex Tin I* remand order contemplated, and neither party disputes in this appeal, that NPL listing would be inappropriate on the present record if the Agency could not justify its treatment of the tin-based arsenic.

v. United States Environmental Protection Agency, 759 F.2d 922, 932 (D.C. Cir. 1985), and because the listing of a facility itself produces no official consequences, *see generally Kent County, Delaware Levy Court v. United States Environmental Protection Agency,* 963 F.2d 391, 394 (D.C. Cir. 1992), some Agency "imprecision" in HRS calculations is tolerable. *Bradley Mining Co.,* 972 F.2d at 1359. Nevertheless, the imprecision may rise to such a level that agency action becomes arbitrary and capricious and not otherwise in accordance with law. *See* 5 U.S.C. § 706(2)(A); *National Gypsum Co.,* 968 F.2d at 45.

Conflicting assertions about the physical and chemical properties of tin slag are at the heart of this dispute. Both sides agree that arsenic is present in tin slag. Because of the physiochemical composition of tin slag (an unwanted by-product of tin smelting), pure arsenic does not separate from the rest of the slag except at extremely high temperatures. It is at least possible, however, that small, arsenic-laden slag particles might exist. While these particles would not be pure arsenic, the Agency nonetheless considers them toxic for the purposes of the HRS.[3] Particles smaller than 75 microns in diameter—dust—are "entrainable," that is, capable of becoming airborne. There is disagreement about whether the tin slag at the Tex Tin facility is "reasonably likely" to emit dust, through erosion or other processes. The investigation of this subject has proceeded theoretically: to date, there has been no documented instance of the release of arsenic-laden dust from Tex Tin's tin slag. This fact alone would not necessarily doom the Agency's position. The regulation's "can-reasonably-be-expected" language assumes that the risk of release is enough for purposes of the HRS. *See Tex Tin I,* 935 F.2d at 1323.

The Agency's primary argument, both in support of its initial listing and on remand, is that uncovered tin slag waste piles are, by their nature, likely to produce entrainable dust particles. In its Explanation on remand, the Agency cited a number of studies finding that particulate releases from slag piles "commonly occur as a result of wind erosion, vehicular traffic, and site operations."

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[3]Tex Tin's expert, in an affidavit submitted to the Agency on remand, argued that certain compounds of arsenic-laden dust would have a much lower toxicity than pure arsenic. The Agency's response to this assertion did little to clarify matters. *See* Agency Response at 14-15 & nn.26-27. For the purposes of this opinion, however, we will assume that the Agency may treat arsenic-laden dust, in whatever compound form, as comparably toxic to pure arsenic.

Agency Explanation at 2. The studies were of piles of iron and steel slag and crushed rock. *See id.* Tex Tin responded with an affidavit from Peter A. Wright, an expert metallurgist familiar with the Tex Tin site. Wright claimed that whatever the Agency's experience with other types of waste piles, the tin slag at the Tex Tin facility was unlikely to generate any entrainable dust. In particular, Wright noted that the Tex Tin facility produced its slag by pouring out the molten materials, slowly cooling the materials, and then breaking the solid mass into large pieces with a back-end loader. Wright stated that this process itself "does not generate dust," and that slag created by this "air cooled" method would be "very unlikely" to generate dust through wind erosion or other processes. Faced with this detailed and specific evidence, the Agency's Response merely cited again the general waste pile studies. *See* Agency Response at 6, 15-17.

We are thus confronted with a state of affairs reminiscent of *Tex Tin I.* Then, as now, we had only the Agency's "conclusory statements" (935 F.2d at 1323) to weigh against specific scientific evidence Tex Tin provided. Despite the "cursory nature of the NPL listing process," the Agency may not "base a listing decision on unsupported assumptions." *National Gypsum Co.,* 968 F.2d at 44. With respect to the Agency's primary argument, we again conclude that the Agency has supplied nothing more than unsupported assumptions to back up its conclusion that arsenic-laden dust particles are likely to come from the tin slag.

On remand, the Agency supplemented the record with studies and observations of the Tex Tin plant. (Because Tex Tin was able fully to examine and comment upon these items during the remand, the Agency appropriately considered them in reaching its present decision. *See, e.g., National Grain & Feed Ass'n v. OSHA,* 903 F.2d 308, 310-11 (5th Cir. 1990).) The Agency tells us these new studies lend further support to its conclusion that because the tin slag will produce dust, particles containing arsenic will become airborne. We remain unconvinced.

The Agency's 1991 site characterization study found arsenic present in a variety of materials other than the tin slag at the Tex Tin location. *See* Agency Explanation at 4-5. This information, however, is not responsive to our remand order in *Tex Tin I,* which required the Agency to justify its conclusion that the tin slag was a likely source of arsenic emissions. *See* 935 F.2d at 1324. It is too

late for the Agency to base its listing on a new theory for the source of arsenic. *Cf. Anne Arundel County, Md. v. United States Environmental Protection Agency,* 963 F.2d 412, 418 (D.C. Cir. 1992).

The Agency also reports the results of a sampling of the tin slag piles it took from the Tex Tin facility in July 1991, showing entrainable dust particles present in the piles in concentrations of 0.2 to 2.8 percent. *See* Agency Explanation at 6-7. The problem is that the Agency never conducted any chemical analysis to confirm that the particles came from the tin slag. It is as if dust accumulated on an automobile's windshield; one could not simply infer that the dust came from the window glass rather than the air. So here. Tex Tin claims—entirely plausibly, it seems to us—that the small particles blew onto the uncovered piles from elsewhere. The fact remains that the Agency has never documented a single speck of dust with a chemical composition associating it with Tex Tin's tin slag. Given this gaping evidentiary hole, the Agency was not entitled merely to assume that the untested dust particles on the tin slag pile were produced by the slag.

Finally, the Agency notes that the 1991 site characterization study found high concentrations of arsenic in soil adjacent to the Tex Tin facility. *See* Agency Explanation at 5. Tex Tin attributes these concentrations to the plant's smokestack, which for years had a federal permit to emit more than 8000 pounds of arsenic annually.[4] Given the volume, the smokestack qualifies as a much more likely source, at least in the absence of any chemical analysis linking the arsenic found in the soil to the tin slag. The Agency claims that the documented presence of the arsenic in the surrounding soil is at least "probabilistic" evidence that the tin slag is likely to release arsenic. *See* Agency Response at 20. This confuses correlation with causation. Without any evidence showing that the tin slag releases dust or is likely to do so, the presence of arsenic in the soil merely points to the one known source of arsenic, the smokestack.

The Agency has failed to comply with our remand order. Once again it has come up with insufficient support for its conclusion that the tin slag at Tex Tin's site is "reasonably likely" to emit

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[4]In its Response, the Agency suggested in passing that the smokestack emissions of arsenic themselves satisfied the requirements of the remand. *See* Agency Response at 20 n.39, 23 n.46. Because Tex Tin has ceased smelter operations at its Texas City facility, this theory, even if responsive to the remand order, would appear problematic. In any event, the Agency now disclaims any reliance on the smokestack emissions. *See* Final Brief for Respondent at 35 n.34.

arsenic into the air. Tex Tin's petition for review is granted and the company's Texas City, Texas, facility is ordered deleted from the NPL.

Petition for Review Granted.