

Bradley Mining Co. v. U.S. Environmental Protection Agency, 22 ELR 21493 (1992)
(UID:001004636)No. 90-1556 UNITED STATES COURT OF APPEALS FOR THE
DISTRICT
OF COLUMBIA

Before RUTH B. GINSBURG, BUCKLEY, and D. H. GINSBURG, Circuit Judges.

Counsel for Petitioner
Anthony Garvin
Brobeck, Phleger & Harrison
One Market Pl., San Francisco CA 94105
(415) 442-1620

Counsel for Respondent
George B. Wyeth
U.S. Environmental Protection Agency
401 M St. SW, Washington DC 20460
(202) 260-2090

Lewis M. Barr, Eileen T. McDonough Environmental and Natural Resources Division U.S.
Department of Justice, Washington DC 20530 (202) 514-2000

BUCKLEY, Circuit Judge: Petitioner Bradley Mining Company seeks review of a rulemaking in which the Environmental Protection Agency listed the Company's inactive mercury mine on the National Priorities List of sites containing hazardous substances. The Company claims that the EPA acted arbitrarily and capriciously in listing the property because the EPA failed to demonstrate that mercury found in an adjacent lake was caused by mining operations and because the Agency incorrectly calculated the risk that the mercury would contaminate usable ground water. We find that sufficient evidence supported the Agency's decision to add the site to the priorities list and reject the petition.

I. BACKGROUND

A. Statutory and Regulatory Framework

The Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (1988) ("CERCLA"), sets out a broad strategy for dealing with inactive hazardous waste sites. CERCLA requires the President to prepare a contingency plan for cleaning up hazardous substances and to create a list of priority sites where there have been known or threatened releases

of hazardous substances. CERCLA § 105(a), 42 U.S.C. § 9605(a) (1988). The EPA is charged with drafting this "National Priorities List" ("NPL") and updating it through informal rulemakings. The NPL serves two narrow purposes: It sets priorities for the use of clean-up monies in the "Superfund" established by CERCLA, and it informs the public of environmental hazards. Although listing on the NPL often leads to orders for remedial action, such action is not required. See *Apache Powder Co.*

v. EPA, No. 90-1543, slip op. at 3 (D.C. Cir. June 23, 1992).

The EPA analyzes sites for inclusion on the NPL with the aid of a scientific and mathematical model, the Hazardous Ranking System ("HRS"). See generally 40 C.F.R. Pt. 300, App. A (1990).

The Agency applies the HRS to data on the observed or potential release of hazardous substances from a site into three "pathways" -- surface water, ground water, and the air -- and it assesses the relative risks posed by these releases to human populations and the environment. The ratings will reflect the toxicity of the substances released and their potential for migration into drinking water or to population centers.

In rating the risks, the EPA prepares separate score sheets for ground water, surface water, and airborne releases. For each of these, the HRS calls for a determination of whether a release has been observed and an assessment of the risk that a release might take place. An actual release results in a much higher score than a potential one. See *Eagle-Picher Indus., Inc. v. EPA*, 759 F.2d 905, 910-11 (D.C. Cir. 1985); 40 C.F.R. Pt. 300, App. A (1990). (UID:001004636)The potential for a release into the ground water is rated based, among other factors, on how close the site is to an aquifer, the permeability of the soil, and the existence of barriers that would contain the hazardous substances -- i.e., through an examination of the factors that might inhibit migration. See 40 C.F.R. Pt. 300, App. A §§ 3.2-3.3 (1990). The factors relevant to potential releases into surface water are the terrain near the site, the distance of the surface water from the site, annual rainfall, and containment. *Id.* §§ 4.2-4.3.

Ratings for toxicity and persistence, quantity of a release, and the potential targets are then added to the scores, reflecting the risk of harm to human health in a potential or actual release. Finally, the scores for releases into the three "pathways" are factored together through a complex formula. Any site generating a score of 28.5 or greater is added to the list. See generally *Eagle-Picher*, 759 F.2d at 910-11.

The EPA issued its initial HRS in 1982. Amendments to CERCLA enacted in 1986 required the EPA to promulgate a new HRS that would "assure, to the maximum extent feasible, that the .

. relative degree of risk to human health and the environment posed by sites and facilities" is assessed accurately. CERCLA § 105(c)(1), 42 U.S.C. § 9605(c)(1). The amendments set a 1988 deadline for the development of a new HRS, but the new system did not become effective until March 1991.

Although the mining site at issue was scored under the old system, we have upheld the use of that system for sites listed after 1988. See *Linemaster Switch Corp. v. EPA*, 938 F.2d 1299, 1302-05 (D.C. Cir. 1991).

B. The Sulphur Bank Mine

Bradley Mining Company owns the site of the Sulphur Bank Mine ("site" or "property"). The property is located adjacent to the shore of Oaks Arm, an inlet of Clear Lake, in Lake County, California. Open-pit and underground mining of mercury and sulphur took place periodically on the property between the 1850's and 1957. The EPA proposed to list the site on the NPL in 1988. The Agency described the property as having "[a]pproximately 120 acres of tailings and an open, unlined mine pit (called the Herman Pit) The mine tailings extend into the Oaks Arm of Clear Lake along 1,320 feet of shoreline. The Herman Pit covers approximately 23 acres and is 750 feet upgradient of the lake. The pit is filled with water to a depth of 150 feet.

EPA, HRS Package, reprinted in Petitioner's Appendix ("App.") at 36. The Agency also found approximately seventeen acres, set back from the lake, that had mine tailings piled five to fifteen feet high. The EPA believed that surface runoff from the property was capable of eroding the tailings and transporting this material into the lake. Agency staff found evidence that "a 32.3-acre portion of the waste rock had been deposited" into the lake. *Id.* Other waste piles, containing high concentrations of mercury, were left along the shoreline.

Applying the HRS, the EPA determined that an "observed release" into the lake caused by mining operations had occurred. The EPA examined lake bottom sediments taken within a half mile radius of the site and compared them with samples taken from the mouth of Oaks Arm, approximately three miles away. The nearby sediments averaged 102 mg/kg of mercury, as compared with a range of 7.6 mg/kg to 26 mg/kg in the background samples taken in the mouth of the inlet. The mine tailings ranged up to 624 mg/kg of mercury. See *id.* at 6-6A, reprinted in App. at 49-50. The Agency determined that the waste was highly toxic and present in large quantities. As to possible "targets" of the release, the EPA found that the waters of the lake are used for recreation and irrigation and that mercury contamination threatens those uses as well as sensitive wetlands. In applying the HRS formula to this data, the Agency found that the total points calculated for the surface water route alone resulted in an HRS score above the 28.5 required for listing.

(UID:001004636)The EPA saw no observable release to the ground water. *Id.* at 2, reprinted in App. at 44. It therefore calculated a ground water score based on the risk of release. The EPA found a shallow alluvial aquifer, composed of silty sand and gravel with a thin layer lying below the site that extended, without interruption, to the town of Clearlake Oaks. *Id.* As the area has significant precipitation, and the soil is permeable, see *id.* at 3, reprinted in App. at 45, the Agency concluded that the possibility that substances would be released into the ground water was high. It found wells that served 1,245 year-round residential homes within three miles of the site (the relevant radius under CERCLA regulations). See *id.* at 5, reprinted in App. at 47. After application of the HRS formula, the ground water route also produced an HRS score high enough to mandate listing on the NPL.

II. DISCUSSION

A. Standard of Review

Given the highly technical issues involved in the Agency's decision to list a facility, this court gives significant deference to the EPA's determination. "[T]he importance of EPA's goals, including protecting human life from potentially disastrous contamination and the congressionally mandated need for speedy action," means that "[i]t is not necessary that EPA's decisions as to what sites are included on the NPL be perfect, nor even that they be the best." *City of Stoughton, Wisc. v. EPA*, 858 F.2d 747, 756 (D.C. Cir. 1988).

Significant deference is also called for because the NPL represents only "a rough list of priorities, assembled quickly and inexpensively." *B&B Tritech, Inc. v. EPA*, 957 F.2d 882, 884 (D.C. Cir. 1992) (quoting *Eagle-Picher Indus., Inc. v. EPA*, 759 F.2d 922, 932 (D.C. Cir. 1985)). For these reasons, we have tolerated imprecision in calculations. See *id.* at 885. We have made it clear, however, that our deference is not limitless. See *National Gypsum Co. v. EPA*, No. 90-1574, slip op. at 2 (D.C. Cir. June 19, 1992). As always, because the decision results from a rulemaking procedure, the arbitrary and capricious standard of review of the Administrative Procedure Act applies. 5 U.S.C. § 706(2)(A) (1988).

B. Analysis

Bradley attacks, as arbitrary and capricious, the EPA's finding that there was an "observed release" into the surface water, as well as its scoring for the ground water route. We find that sufficient evidence supports the EPA's scoring for surface water releases. As this is adequate to require listing on the NPL, we do not address petitioner's challenge to the ground water scoring.

The finding of an observed release into the surface water accounted for over forty percent of the points in the HRS surface water route calculation. The EPA's guidelines for use of the HRS state that

"[d]irect evidence of release to surface water must be quantitative evidence that the facility is releasing contaminants into surface water. Quantitative evidence could be the measurement of levels of contaminants from a facility . . . or downhill from it, that represents a significant (in terms of demonstrating that a release has occurred, not in terms of potential effects) increase over background levels.

40 C.F.R. Part 300, App. A § 4.1 (1990). According to Bradley, the EPA did not have direct evidence that a significant increase over background levels had occurred and thus that mercury levels were due to mining operations. Bradley claims that the sediment samples taken from the mouth of the Oaks Arm inlet, three miles from the property, are not representative of the background at the site.

Based on reports produced by its consultants, as well as historical studies of the Clear Lake area, Bradley asserts that the presence of mercury at the property is the result of natural geothermal processes and that in examining mercury occurrences on the site, the EPA must distinguish between natural mercury contamination and the contamination stemming from mining. The Company contends that the EPA's regulations require the Agency to produce quantitative evidence proving that mining caused the heightened levels of the hazardous substances, and that the EPA failed to meet this requirement by using lake bottom sediments from the mouth of Oaks Arm, rather than on-site soil samples, to establish background levels for the pollutants. Bradley also asserts that the Agency did not respond to comments Bradley made during the rulemaking raising these problems.

The EPA disagrees. In its view, samples of lake bottom sediments taken at a distance from the property provide a proper measure of naturally occurring mercury. The Agency argues that drawing samples from the property itself would not allow any basis for comparison, as it would be impossible to tell whether the mercury present in the samples resulted from mining activities or from geothermal activity. The EPA adds that the HRS does not impose a rule regarding where samples are to be drawn.

While there may be differences of opinion as to the best evidence of background mercury values, we have been given no reason to believe that the EPA acted arbitrarily or capriciously when it selected lake bottom sediments as its marker. Nor does the presence of naturally occurring mercury in the samples taken from the property render them useless for determining whether a release

occurred that was related to mining activities. Perhaps most important, the relationship between, on the one hand, the mine tailings, overburden, and waste rock moved and produced in the course of mining operations and, on the other, the high levels of mercury in Oaks Arm finds substantial support in a January 1990 study, Abatement and Control Study: Sulphur Bank Mine and Clear Lake ("Humboldt Report"), that was commissioned by the California Water Quality Board.

The study notes that "[a]pproximately 2060 ft of the shoreline of the Oaks Arm is in contact with mine wastes. Of this, about 1240 ft of the shoreline is in contact with a very steep, barren bank made up of overburden and waste rock." Humboldt Report at 14, reprinted in App. at 872. It concludes that "[s]oil erosion along the shoreline of the mine . . . discharges about 100 kg of mercury per year into the Oaks Arm. This represents approximately 90 percent of the total mercury entering the Oaks Arm annually." Id. at 173, reprinted in App. at 1023.

An analysis of the sediments indicates a strong correlation between the deposition of mercury along the lake bottom and mining activities:

Of the mercury already in the Oaks Arm, the greatest amount -- about 100,000 kg -- is contained in the upper sediments. This large quantity of mercury was most probably produced during the time periods of 1927-44 and 1955-57 when mining practices disposed of waste rock and surface overburden directly into the lake. By comparison, much smaller amounts of mercury are contained in the deeper sediments and the water column -- about 440 kg and 60 kg, respectively.

Id. at 173, reprinted in App. at 1023. By contrast, the study estimates that geothermal activity contributed no more than 2.4 to 119 kg of mercury a year. "At those rates, about 800 to 40,000 years would be required to produce the amount of storage observed in the sediments in the absence of any other inputs." Id. at 100, reprinted in App. at 952. The studies of Bradley's consultants do not contradict this point. As the NPL is concerned with the risks presented by releases, regardless of when they occurred, historical data are highly relevant. See CERCLA § 105(a)(8), 42 U.S.C. § 9605(a)(8).

Thus, the record provides a sufficient foundation for the EPA's conclusion that an observed release of mercury occurred. In the face of this evidence, we cannot quarrel with the Agency's choice of background samples. Nor do we find merit in Bradley's claim that the Agency provided no quantitative evidence of a significant release. Even if the EPA's regulations demanded the use of statistical evidence, the Humboldt study provides such data. The Agency pointed to the Humboldt study in responding to Bradley's comments, fulfilling its obligations to meet challenges to its decision.

See EPA, Support Document for the Revised NPL Final Rule at 9-184 to 9-185 (Aug. 1990), reprinted in App. at 1139-40.

Finally, in its reply brief, Bradley argues that the EPA failed to meet its obligation under section 105(g)(2)(A) of CERCLA, which requires the Government to consider the "extent to which hazard ranking system score for the facility is affected by the presence of any special study waste at . . . such facility." CERCLA § 105(g)(2)(A), 42 U.S.C. § 9605(g)(2)(A). Special study wastes include, inter alia, solid wastes resulting from the extraction and processing of ores and minerals. Id. § 9605(g)(1)(B) (incorporating 42 U.S.C. § 6921(b)(3)(A)(ii)). The Company criticizes, as inadequate, the analysis of special study wastes performed by the Agency and seeks a remand for additional analysis. See Reply Brief for Petitioner at 6-8.

In its initial brief, Bradley listed among its issues raised "[w]hether the [EPA] . . . failed to comply with the requirements of 42 U.S.C. § 9605(g) regarding the addition of property containing special study wastes[.]" Brief for Petitioner at 9. The initial brief specifically stated, however, that it would not address that issue, see id.; and, relying on that statement, the EPA did not discuss the impact of the special waste study provision in its brief. The EPA moves to strike those portions of petitioner's reply brief. Bradley asserts, first, that its reference to the issue at the beginning of its brief, and the fact that it did not explicitly waive the issue, protects it from the bar on new issues in reply briefs. Second, the Company maintains that the reference to the analysis of special study wastes in the reply brief is not intended to raise a new issue; rather, it is directed to an essential element of the claims it advanced in its initial brief.

We have stated that "[c]onsidering an argument advanced for the first time in a reply brief . . . is not only unfair to an appellee but also entails the risk of an improvident or ill-advised opinion on the legal issues tendered." *McBride v. Merrell Dow & Pharmaceuticals, Inc.*, 800 F.2d 1208, 1211 (D.C. Cir. 1986) (citations omitted). Here, the Company listed the issue in its opening brief and then specifically stated that it would not address the question in the remainder of that brief. Thus the EPA did not have any need to address the question. We see no merit in Bradley's assertion that its special waste study assessment is relevant to the claims that the Company did pursue initially. Therefore, we grant the motion to strike the portions of petitioner's reply brief suggesting that the EPA did not comply with the dictates of section 105(g)(2)(A). Consideration of this question is inconsistent with the adversary process and would be "inappropriate." *In re Barr Laboratories, Inc.*, 930 F.2d 72, 75-76 (D.C. Cir.), cert. denied, 112 S. Ct. 297 (1991).

III. CONCLUSION

For the reasons stated herein, we deny the petition for review and grant the motion to strike.

So ordered.