

May 3, 2007

Elisabeth A. Shumaker  
Clerk of Court

PUBLISH

**UNITED STATES COURT OF APPEALS**  
**TENTH CIRCUIT**

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CITIZENS FOR ALTERNATIVES TO  
RADIOACTIVE DUMPING, BETTY  
RICHARDS, and BOB GASTON,

Plaintiffs-Appellants,

v.

No. 04-2314

UNITED STATES DEPARTMENT  
OF ENERGY, and SAMUEL W.  
BODMAN,\* United States Secretary of  
Energy,

Defendants-Appellees.

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**APPEAL FROM THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEW MEXICO  
(D.C. NO. CIV-99-321-MCA/ACT)**

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John A. McCall, Albuquerque, New Mexico on the briefs, for Plaintiffs-Appellants.

Jennifer L. Scheller, Attorney, Environment & Natural Resources Division, Department of Justice, Washington, D.C. (Kelly A. Johnson, Acting Assistant Attorney General, and John A. Bryson, Attorney, Environment & Natural Resources Division, Department of Justice, Washington, D.C., David C. Iglesias, United States Attorney, and Raymond Hamilton, Assistant United States Attorney, Office of the United States Attorney, Albuquerque, New Mexico, and Elizabeth C. Rose, Of Counsel, Office of the Chief Counsel, United States

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\* Pursuant to Federal Rule of Appellate Procedure 43(c)(2), Respondent requests that Samuel W. Bodman be substituted for William B. Richardson as the appellee in this case.

Department of Energy, Carlsbad Field Office, Carlsbad, New Mexico, with her on the brief), for Defendants-Appellees.

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Before **MURPHY, BRORBY, and TYMKOVICH**, Circuit Judges.

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**TYMKOVICH**, Circuit Judge.

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After three environmental impact statements spanning two decades, the Department of Energy (DOE) approved operation in 1998 of the Waste Isolation Pilot Plant (WIPP), a nuclear waste repository located in southeastern New Mexico. Citizens for Alternatives to Radioactive Dumping (Citizens) sought to enjoin the facility's operation under the National Environmental Policy Act (NEPA). Citizens argued DOE relied on faulty data regarding the subsurface geomorphology of the site in its environmental review, thereby underrepresenting the environmental hazards of waste storage at the site. The district court denied the requested injunction, finding DOE's actions were not arbitrary and capricious.

Having jurisdiction pursuant to 28 U.S.C. § 1291, we AFFIRM the district court's decision.

### **I. Background**

*The Facility and Location.* Congress approved WIPP near Carlsbad, New Mexico in 1979 to provide "a research and development facility to demonstrate

the safe disposal of radioactive waste resulting from . . . defense activities and programs.” Pub. L. 96-164, 93 Stat. 1259 (1979). One year later, in 1980, DOE completed its first environmental impact statement for the project as required by NEPA. In 1990, after the completion of most of the WIPP construction, DOE prepared a second supplemental environmental impact statement before facility testing would begin.

Finally, before the facility would begin accepting waste, DOE conducted a third impact statement, the Disposal Phase Final Supplemental Environmental Impact Statement (SEIS-II).<sup>1</sup> It published the SEIS-II record of decision in January of 1998, concluding disposal of radioactive wastes at WIPP was the preferred alternative to other options and authorizing disposal at the site. 63 Fed. Reg. 3,624 (Jan. 23, 1998). In conjunction with the SEIS-II, Congress ordered the Environmental Protection Agency to conduct a parallel environmental assessment. The Agency’s review concluded with a finding in 1998 that WIPP would comply with the radioactive waste disposal regulations promulgated by the Agency. 63 Fed. Reg. 27,357 (May 18, 1998).

The waste repository for the WIPP is located 2,150 feet underground, in the Salado Formation, a massive salt bed with low permeability that impedes groundwater flow in and out of the WIPP repository. About 1,400 feet above the

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<sup>1</sup> The SEIS-II’s administrative records fill over 30 boxes. Among the issues studied were site geology and hydrology, worker safety, environmental justice, and transportation.

WIPP is a fractured layer of dolomite rock called the Culebra Dolomite. The Culebra is the first layer above the Salado Formation with a continuous body of groundwater. Above the Culebra sits 86 feet of claystone, mudstone, and siltstone sandwiched between layers of anhydrite called the Tamarisk Member. Above the Tamarisk Member, another layer of dolomite, the Magenta Dolomite, runs from 621 to 596 feet below the surface. These formations are arrayed as follows:

<b>Geologic Layer</b>	<b>Depth Below the Surface in Feet</b>
Surface to Forty-Niner	0 to 538
Forty-Niner	538 to 596
<b>Magenta Dolomite</b>	596 to 621
Tamarisk	621 to 707
<b>Culebra Dolomite</b>	707 to 729
Lower Part of Rustler Formation	729 to 844
Upper Part of Salado Formation	844 to 1,343
McNutt Potash	1,343 to 1,727
Lower Part of Salado Formation	1,727 to 2,650
<b>WIPP Site</b>	2,150
	Source: Aple. Supp. App. at 144

The possibility of radioactive material from the WIPP escaping into the local environment via groundwater was a risk factor considered by the DOE in SEIS-II. In modeling the risk, the DOE chose to investigate the Culebra Dolomite in detail, but not the Magenta, because prior studies included in the SEIS-II record led DOE to conclude the Culebra was the “most transmissive unit at the

WIPP site.”<sup>2</sup> Aple. Supp. App at 157. The agency arrived at this conclusion based on a record that established, “[i]n most locations, the hydraulic conductivity of the Magenta is one to two orders of magnitude less than that of the Culebra.” *Id.* at 159. Moreover, the radio-nuclides stored at WIPP would need to make their way through both the Culebra and the Tamarisk, which “functions as a confining layer” due to its low permeability, before reaching the Magenta. *Id.* at 158. Failure to model the Magenta is the basis for Citizens’ appeal.

*Citizens’ Lawsuit.* Citizens first brought common law public nuisance claims in New Mexico state court in 1999, seeking to enjoin the WIPP facility. DOE removed the case to federal court, which denied the request for an injunction. Citizens subsequently amended their complaint to assert an additional claim that the SEIS-II inadequately complied with NEPA. Citizens had previously participated in the public comment phase of SEIS-II. As part of their NEPA claim, Citizens sought to inject evidence outside the administrative record based on research conducted by an expert consultant.

The extra-record evidence allegedly came to light after the record for SEIS-II was completed. Citizens’ consultant, Dr. Richard Hayes Phillips has actively studied the geomorphology around the WIPP site for twenty years. In an affidavit

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<sup>2</sup> Transmissivity is the rate at which water passes through a unit of thickness. It can be measured in square feet per day or equivalent units.

prepared for this litigation, he claims during that time to have “witnessed a pattern of lies and deceptions designed to disguise the true hydrology of the . . . site.” Aplt. App. at 61. Dr. Phillips supports these allegations for purposes of this appeal with two charges: He points to (1) a 1983 study of the Magenta included in the SEIS-II that relies upon a miscalculated data point at a test well (H-3) drilled near WIPP, thereby understating the groundwater transmissivity of the formation; and (2) penciled editing marks made to include the miscalculation in the study, from which Phillips arrives at the conclusion of “data falsification.” *Id.*

The district court upheld DOE’s record of decision. The court concluded (1) the decision was not arbitrary and capricious, and (2) there was no reason to consider the proffered extra-record materials in its review. In particular, the court carefully reviewed a number of charges by Citizens that SEIS-II was inadequate in the way it analyzed the facility’s hydrology, geology, and possible release scenarios. The court, while acknowledging the scientific debate surrounding many of the issues, ultimately found support in the administrative record for the decisions made by DOE.

On appeal, Citizens has narrowed the issues to the following: (1) the district court should have admitted extra-record evidence regarding allegations of tampering with and miscalculation of data involving groundwater studies in the Magenta formation; and (2) DOE was arbitrary and capricious in its evaluation of

the record by not further investigating the properties of the Magenta based on the allegations raised by Dr. Phillips.<sup>3</sup>

## II. Discussion

### *A. Extra-Record Evidence*

Judicial review of agency action is normally restricted to the administrative record. *Lee v. U.S. Air Force*, 354 F.3d 1229, 1242 (10th Cir. 2004). It is only in “extremely limited circumstances, such as where the agency ignored relevant factors it should have considered or considered factors left out of the formal record” that we will consider extra-record evidence. *Id.* (internal quotations omitted).

We may also delve outside the administrative record when there is a “strong showing of bad faith or improper behavior.” *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 420 (1971). In dealing with scientific and technical evidence, extra-record evidence “may illuminate whether an

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<sup>3</sup> Citizens also contends the district court improperly granted summary judgment on their NEPA challenge. Although Citizens is correct that summary judgment is inappropriate for judicial review of NEPA claims, *see Olenhouse v. Commodity Credit Corp.*, 42 F.3d 1560, 1579–80 (10th Cir. 1994), the district court did not grant summary judgment. It is clear from the court’s order that it relied on the administrative record in reaching its final judgment pursuant to the Administrative Procedures Act. [Mem. Op. and Order at 55.]

DOE argues that Citizens did not present its challenge during the open public comment period and its objections should therefore be forfeited. The district court did not directly address this issue and DOE did not cross-appeal the issue. Since DOE’s actions were not arbitrary and capricious in any event, we do not address DOE’s forfeiture argument.

[environmental impact statement] has neglected to mention a serious environmental consequence, failed adequately to discuss some reasonable alternative, or otherwise swept stubborn problems or serious criticism . . . under the rug.” *Lee*, 354 F.3d at 1242 (internal quotations omitted). We review a district court’s determination of whether or not to exclude extra-record evidence for abuse of discretion. *Valley Cmty. Pres. Comm’n v. Mineta*, 373 F.3d 1078, 1089 n.2 (10th Cir. 2004) (citing *Northcoast Env’tl. Ctr. v. Glickman*, 136 F.3d 660, 665 (9th Cir. 1998)).

To support its claim the administrative record should be supplemented, Citizens contends water flow data for the Magenta was concealed and misrepresented. Relying on the allegations contained in Dr. Phillips’s 1999 affidavit, Citizens claims the studies based on this misrepresentation led the government to wrongly assume the Culebra was the most transmissive geological layer in the storage facility’s proximity. As a result, DOE decided it need not model the transmissive properties of the Magenta layer. Citizens argues that Dr. Phillips’s charges satisfy its obligation to make “a strong showing that DOE engaged in bad faith and improper conduct,” and therefore additional evidence should be produced in the administrative record. Aplt. Brief at 19.

We disagree. Upon examining Dr. Phillips’s affidavit, we find nothing to justify the inclusion of extra-record evidence to demonstrate gaps or inadequacies in the SEIS-II.

Dr. Phillips makes two claims of misrepresentation.

First, he asserts he discovered a document as part of his research that evidences tampering with a hydrology report relied on by DOE. He supports this allegation by pointing to handwritten editing marks (he calls them “alterations”) on a draft of a 1983 report which was eventually included in the SEIS-II.

According to Dr. Phillips, the handwritten notations demonstrate the author of the final report altered transmissivity data for the Magenta dolomite downward from a high of 40-square feet per day to a high of 1-square foot per day. The significance of this data, which he claims DOE relied on in dispensing with further modeling of the Magenta, is to make the Magenta appear more impermeable than it really was.

Second, he claims the 1983 report relied on these altered calculations for one of the test wells drilled into the Magenta, well number H-3, even though the calculations are inconsistent with the raw transmissivity data collected in 1978. The 1983 report calculated a transmissivity at H-3 of 0.1-square feet per day for the Magenta, but Dr. Phillips calculated a rate of 330-square feet per day using the underlying raw data, which he argues is four times more transmissive than the highest rate found anywhere in the Culebra. Dr. Phillips alleges this discrepancy at one well (out of the fifteen drilled into the Magenta) demonstrates the Magenta’s transmissivity numbers were falsified, thus establishing bad faith and improper conduct on the part of the DOE.

The district court disagreed. It concluded, in reviewing the agency record, that the handwritten alterations resemble proofreading and peer review marks: insufficient in themselves to demonstrate a sinister motive. As to the transmissivity calculations, the court found the raw data had been available for twenty years, which was plenty of time for Citizens to review it and comment on it for the administrative record during the normal course of review.

We have carefully reviewed the record and agree the extra-record evidence does not warrant inclusion in the administrative record. Although our review is thorough, “designation of the Administrative Record, like any established administrative procedure, is entitled to a presumption of administrative regularity. The court assumes the agency properly designated the Administrative Record absent clear evidence to the contrary.” *Bar MK Ranches v. Yuetter*, 994 F.2d 735, 740 (10th Cir. 1993) (citation omitted). Citizens has not overcome the presumption of regularity, nor made a “strong showing” of improper behavior in development of the record.

First of all, we are not convinced that editing marks on a draft report show anything conclusive. Citizens has pointed to no evidence that the final report did not represent the author’s findings and analysis. It is hardly surprising that the study went through a number of rounds of editing; on this record, nothing can be inferred from either the existence of the draft or of handwritten edits. Citizens

has made nothing more than a speculative claim uncorroborated by evidence of wrongdoing.

More importantly, the 1983 Magenta study does not stand alone in the administrative record. The record of decision contains a number of other studies regarding the Magenta, all of which were considered by the DOE's decision-making process. Citizens fails to demonstrate the independent significance of the 1983 report or how it decisively undercuts the entire volume of data considered by DOE.

Confusion centering on one data point from one well does not establish bad faith. As we discuss below, the agency had sufficient evidence to support its decision, and, nothing in the record even suggests SEIS-II relied on the challenged data. Citizens has not carried its burden to demonstrate the record of decision was falsified or altered in bad faith.

Without more, the district court did not abuse its discretion in rejecting Citizens' proffer of extra-record evidence in its review of the agency decision.<sup>4</sup>

#### *B. NEPA Compliance*

“The role of the courts in reviewing compliance with NEPA ‘is simply to ensure that the agency has adequately considered and disclosed the environmental

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<sup>4</sup> Citizens also argues that DOE failed to rebut its allegations in its briefing. But the burden was not on DOE to rebut the charges, it was on Citizens to show bad faith or improper behavior. It did not do so. And even if we did allow in the extra-record evidence, as we explain in the next section, the data do not establish that the DOE's decision was arbitrary and capricious.

impact of its actions and that its decision is not arbitrary and capricious.” *Utah Shared Access Alliance v. U.S. Forest Serv.*, 288 F.3d 1205, 1208 (10th Cir. 2002) (quoting *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 97–98 (1983)). Under this standard, we consider whether “the [agency’s] decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment.” *Overton Park*, 401 U.S. at 416. “An agency action is arbitrary and capricious if the agency . . . entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or [if the decision] is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Utah Environmental Congress v. Richmond*, \_\_F.3d \_\_\_ (10<sup>th</sup> Cir. 2007) (internal quotations omitted). Our review of a district court ruling on NEPA compliance is *de novo*. *Utahns for Better Transp. v. U.S. DOT*, 305 F.3d 1152, 1161 (10th Cir. 2002).

While NEPA advises caution by ordering review of the potential environmental consequences of federal action, it also recognizes the flip-side to this precautionary principle: that adverse consequences, losses, and other hazards may result from federal inaction. “So long as the record demonstrates that the agencies in question followed the NEPA procedures, which require agencies to take a ‘hard look’ at the environmental consequences of the proposed action, the court will not second-guess the wisdom of the ultimate decision.” *Id.* at 1163

(citing *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989)).

Perfection is not required by the NEPA process.

“We apply a rule of reason standard (essentially an abuse of discretion standard) in deciding whether claimed deficiencies in a [final] EIS are merely flyspecks, or are significant enough to defeat the goals of informed decisionmaking and informed public comment.” *Lee*, 354 F.3d at 1237 (citations omitted). Our deference is “especially strong where the challenged decision[] involve[s] technical or scientific matters within the agency’s area of expertise.” *Utah Environmental Congress*, \_\_\_ F.3d at \_\_\_.

Applying these principles, DOE’s approval decision was not arbitrary and capricious. DOE explained as part of the administrative review that it chose not to model the Magenta dolomite because the Culebra was the “most transmissive unit at the WIPP site.” *Aple. Supp. App* at 157. It based this conclusion on various studies that relied on data generated from test wells drilled at the site. Researchers drilled fifteen wells into the Magenta to analyze its transmissivity. [*Aple. Supp. App.* at 159.] These wells generated data over a number of years, which, as the SEIS-II points out, indicated the Magenta’s overall transmissivity was lower than recorded at H-3 and lower than comparative spots in the Culebra.

Contrary to Citizens’s allegations, the SEIS-II did not ignore data regarding the Magenta layer. In fact, the administrative record reported transmissivity rates

in the Magenta as high as 372-square feet per day,<sup>5</sup> even above the 330-square feet per day calculations that Citizens claims were left out of the 1983 report and ultimately the SEIS-II. [*Id.* at 159.] The SEIS-II concluded that “[i]n most locations” the “the hydraulic conductivity of the Magenta is one to two orders of magnitude less than that of the Culebra.” *Id.* at 159. And, importantly, the “Magenta does not have hydraulically significant fractures in the vicinity of WIPP.” *Id.*

As to the test well data, follow-up studies conducted in 1988 and 1989 collected new data on the Magenta’s transmissivity at test well H-3. The new information found transmissivity higher than the 0.1-square feet per day of the 1983 report, but still less than 0.2-square feet per day. [Aple. Supp. App. at 198.] These new studies, which appeared as part of the SEIS-II record, [Aple. Supp. App. at 166] create, at best, a debate over the proper interpretation of H-3 data between the numbers cited by Dr. Phillips and the follow-up reports. In such a debate, the agency was free to side with the reasonable opinions of its own qualified experts.<sup>6</sup> “When specialists express conflicting views, an agency must

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<sup>5</sup> This figure was converted from feet per second in the SEIS-II to feet per day for this opinion.

<sup>6</sup> The district court agreed that Dr. Phillips’s extra-record evidence demonstrated at most “a dispute among members of the scientific community concerning the interpretation of hydrologic and geologic data regarding the WIPP site.” Mem. Op. and Order at 26. Citizens contends the transmissivity calculation from well H-3 is not a matter of opinion open to dispute, but rather an  
(continued...)

have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive.” *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 378 (1989). Even if the Magenta was more transmissive at well H-3, sufficient information from the other fourteen wells in the record support the conclusion that the Culebra was the most transmissive layer overall. DOE neither failed to consider the Magenta, nor failed to consider data counter to the evidence before it.

Furthermore, transmissivity was not the only factor the DOE relied upon in modeling the Culebra instead of other layers. The DOE also focused on the Culebra because it is the closer formation to WIPP storage.<sup>7</sup> Radio-nuclides stored at WIPP would need to make their way through both the Culebra and the low permeability of the Tamarisk before reaching the Magenta. If waste were unlikely to escape the Culebra, it was even less likely to escape the overlying Magenta. The DOE both considered and disclosed the environmental impact of its modeling decision, in compliance with NEPA.

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<sup>6</sup>(...continued)  
empirical matter. The district court was not claiming the 1978 transmissivity reading from well H-3 was in dispute, however; it was suggesting a reasonable dispute existed regarding the *overall* transmissivity of the Culebra versus the *overall* transmissivity of the Magenta in light of Phillips’s evidence.

<sup>7</sup> “The Rustler Formation is the most significant hydrogeologic unit above WIPP because it contains the Culebra Dolomite, the first laterally continuous hydrologic unit above the Salado Formation” where WIPP would store the radioactive waste. Aple. Supp. App. at 156.

In sum, DOE was not arbitrary and capricious in its review of the geological data before it. It did not ignore the Magenta layer in its evaluation, but rather provided careful and reasoned explanations for modeling the Culebra and not the Magenta. The i's were dotted, the t's were crossed, and NEPA requires nothing more. On this record, we cannot discern that DOE made a "clear error in judgment" in concluding that its site modeling was adequate.

### **III. Conclusion**

\_\_\_\_\_ For the above reasons, we find that DOE was not arbitrary and capricious in its environmental review, and the district court did not abuse its discretion in rejecting the extra-record evidence. We therefore AFFIRM the district court decision.