

**FOR PUBLICATION**  
**UNITED STATES COURT OF APPEALS**  
**FOR THE NINTH CIRCUIT**

LATINO ISSUES FORUM; SIERRA  
CLUB; and MEDICAL  
ADVOCATES FOR HEALTHY AIR,  
*Petitioners,*

v.

UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY,  
*Respondent,*

and

SAN JOAQUIN VALLEY UNIFIED AIR  
POLLUTION CONTROL DISTRICT;  
ALLIANCE OF WESTERN MILK  
PRODUCERS; and AIR COALITION  
TEAM,  
*Respondent-Intervenors.*

No. 06-71907  
EPA No.  
EPA-1: Clean Air  
Act  
OPINION

On Petition for Review of an Order of the  
Environmental Protection Agency

Argued and Submitted  
October 21, 2008—San Francisco, California

Filed March 5, 2009

Before: J. Clifford Wallace, Sidney R. Thomas and  
Susan P. Graber, Circuit Judges.

Opinion by Judge Graber;  
Concurrence by Judge Thomas

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**COUNSEL**

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Philip M. Jay, District Counsel, San Joaquin Valley Unified Air Pollution Control District, Fresno, California; David E. Cranston, Greenberg Glusker Fields Claman & Machtinger LLP, Los Angeles, California; and Rissa A. Stuart, Kahn, Soares & Conway, LLP, Hanford, California, for the respondent-intervenors.

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### OPINION

GRABER, Circuit Judge:

Petitioners Latino Issues Forum and Sierra Club challenge the Environmental Protection Agency's ("EPA") approval of a revision to the state implementation plan ("SIP") for San Joaquin Valley, California. The revision, known as Rule 4550, is part of the Conservation Management Practices ("CMP") Program, an air-pollutant reduction program, established by the San Joaquin Valley Unified Air Pollution Control District ("District"). Rule 4550 aims to reduce emissions from agricultural sources of a certain kind of particulate matter known as PM-10. We hold that Rule 4550 comports with the requirements of 42 U.S.C. §§ 7509 and 7513a(b)(1)(B) and, therefore, deny the petition.

### STATUTORY AND REGULATORY BACKGROUND

The Clean Air Act, 42 U.S.C. §§ 7401-7671 ("Act"), establishes a comprehensive program for controlling and improving the United States' air quality through state and federal regulation. The Act requires the EPA to establish national ambient air quality standards ("NAAQS") for air pollutants that the EPA determines may reasonably be expected to endanger public health or welfare. 42 U.S.C. §§ 7408, 7409.

The states are responsible for ensuring that their air quality meets the NAAQS. *Id.* § 7407(a). The states are divided into

“air quality control regions,” and each region is designated as being either in attainment or nonattainment, or as unclassifiable with respect to each of the NAAQS. *Id.* § 7407(d). The attainment deadlines and control measures applicable within each region vary, depending on the pollutant and the severity of the region’s pollution problem. *See id.* §§ 7502, 7509, 7511-7514a.

Under the Act, a state must develop a SIP that provides for the attainment, maintenance, and enforcement of the NAAQS in each region within the state. *Id.* § 7410(a). Section 7410 sets forth the general requirements for all SIPs, which include enforceable emission limitations and other control measures to meet the requirements of the Act; enforcement programs; and assurances that the state has adequate personnel, funding, and authority to carry out the SIP. Every SIP or SIP revision must be adopted by the state after reasonable notice and hearing, and each must be submitted to the EPA for approval. *Id.* § 7410(a)(1). The EPA may fully approve, partially approve and partially disapprove, conditionally approve, or fully disapprove a SIP. *Id.* § 7410(k)(3)&(4). The provisions of the SIP that the EPA approves are federally enforceable. *See id.* § 7607(b)(1).

The EPA has established NAAQS for “particulate matter,” that is, the particles found in the air, such as dust, dirt, soot, smoke, and liquid droplets. Particles with a diameter less than or equal to ten micrometers are known as PM-10. 40 C.F.R. § 50.6(c).

On November 15, 1990, the date of enactment of the Clean Air Act Amendments of 1990, Congress designated ten PM-10 nonattainment areas, including the San Joaquin Valley, across the country. 42 U.S.C. § 7407(d)(4)(B). All the PM-10 nonattainment areas were classified initially as “moderate” PM-10 nonattainment areas with an attainment deadline of December 31, 1994. *Id.* § 7513(a)&(c)(1); 56 Fed. Reg. 11,101 (Mar. 15, 1991). The EPA was authorized to reclassify

a moderate nonattainment area as “serious” before the attainment deadline if the EPA found that the area could not “practically” attain the PM-10 NAAQS by the deadline. 42 U.S.C. § 7513(b)(1).

The statutory requirements differ between moderate and serious PM-10 nonattainment areas. *Id.* at 7513a. Whereas moderate PM-10 nonattainment plans must include “reasonably available control measures” (“RACM”), *id.* § 7513a(a)(1)(C) (emphasis added), serious PM-10 nonattainment plans must provide for the implementation of “best available control measures” (“BACM”), *id.* § 7513a(b)(1)(B) (emphasis added). Additionally, plans for an area designated as serious that does not reach attainment by the applicable deadline must provide for attainment of the PM-10 standards and for an annual reduction of PM-10 or PM-10 precursor emissions by the date of an extended deadline. *Id.* § 7513a(d). That annual reduction cannot be less than five percent of the amount of such emissions, as reported in the most recent inventory prepared for the area. *Id.*

The Act does not define RACM or BACM. In 1992, the EPA published a “General Preamble,” which is “an advance notice of how EPA generally intends . . . to take action on SIP submissions.” 57 Fed. Reg. 13,498-01, 13,498 (Apr. 16, 1992). In that document, the EPA set forth the process by which RACM should be determined for inclusion in a moderate-area SIP. The first step is to list all available control measures. *Id.* at 13,540. Second, the states must provide a reasoned justification for rejection of a particular RACM. *Id.* The remaining control measures are then to be “evaluated for reasonableness, considering their technological feasibility and the cost of control in the area to which the SIP applies.” *Id.* at 13,540-41. The control measures that are determined to be reasonable are then considered RACM for the moderate PM-10 area.

The EPA set forth the standards for determining BACM in an Addendum to the General Preamble. 59 Fed. Reg. 41,998

(Aug. 16, 1994). BACM is considered to be a higher level of control than RACM because, “when comparing the terms ‘reasonable’ and ‘best’ as applied to control measures, the word ‘best’ strongly implies that there should be a greater emphasis on the merits of the measure or technology alone and less flexibility in considering other factors.” *Id.* at 42,011. The procedures prescribed by the EPA for determining BACM include: (1) develop an inventory of the sources of PM-10 and PM-10 precursor emissions; (2) evaluate, via modeling, the effect of PM-10 concentrations of various sources to determine which are significant sources; (3) evaluate the technological and economic feasibility of the potential control measures; and (4) evaluate the costs and energy and environmental impacts of potential BACM. *Id.* at 42,012-13.

### **FACTUAL AND PROCEDURAL BACKGROUND**

The San Joaquin Valley, which is located in Central California, comprises approximately 25,000 square miles and includes the counties of Fresno, Kings, Tulare, San Joaquin, Stanislaus, Madera, and Merced, plus a portion of Kern County. The San Joaquin Valley is bordered by the Sierra Nevada range on the east, the Coast Mountain range on the west, and the Tehachapi Mountains on the south.

The Clean Air Act Amendments of 1990 designated San Joaquin Valley as a moderate nonattainment area for PM-10. 42 U.S.C. § 7407(d)(4)(B); *see* 56 Fed. Reg. at 11,103. The Clean Air Act Amendments of 1990 required the District to submit to the EPA the first of its moderate nonattainment plan elements by November 15, 1991. 42 U.S.C. § 7513a(a)(2)(A). The District failed to meet that deadline; consequently, the EPA determined that the PM-10 pollution problems in the San Joaquin Valley were too severe to resolve by the December 31, 1994, statutory deadline for moderate areas. *See* 58 Fed. Reg. 3,334-01, 3,334 (Jan. 8, 1993). Thus, the EPA reclassified the San Joaquin Valley as a serious nonattainment area for PM-10 effective February 8, 1993, thus extending the

deadline for attainment to December 31, 2001. *Id.* at 3,334, 3,337. The District was required to submit a revised SIP no later than February 8, 1997. 42 U.S.C. § 7513a(b)(2).

The District submitted to the EPA two proposed SIPs, the first in 1994 and the second in 1997. *See* 67 Fed. Reg. 11,925-01, 11925-26 (Mar. 18, 2002). The EPA intended to disapprove each of those plans but, just as the EPA was preparing each proposed disapproval notice, the District informed the EPA that it had withdrawn both plans from consideration by the EPA. *Id.* at 11,926. Accordingly, on February 28, 2002, the EPA issued a finding that the state had failed to submit a SIP for the San Joaquin Valley serious PM-10 nonattainment area. *Id.*

On August 19, 2003, the District submitted to the EPA a revised SIP to satisfy the requirements of section 189(b)-(d) of the Clean Air Act. 42 U.S.C. § 7513a(b)-(d); 69 Fed. Reg. 5,412-01, 5,413 (Feb. 4, 2004). The EPA partially approved the District's revised plan, 69 Fed. Reg. 30,006-01 (May 26, 2004), but stated that it would act at a later date on the elements missing from the District's revised plan, including measures to control PM-10 emissions from agricultural sources, *id.* at 30,014-16. Because the last deadline for attainment had passed, the EPA established 2010 as the earliest date by which the San Joaquin Valley could practicably attain the PM-10 standards. *Id.* at 30,015.

On August 19, 2004, the District adopted Rule 4550 and its associated CMP list. 70 Fed. Reg. 16,207-01 (Mar. 30, 2005). Rule 4550 applies to PM-10 emissions from agricultural operations with 100 or more contiguous acres and from concentrated animal feeding operations that meet or exceed certain minimum size requirements. *Id.* at 16,207-08. The Rule requires those agricultural operations to choose one control practice from each of five categories for cropland and poultry operations, and one from each of four categories for beef and dairy operations. *Id.* at 16,208. Each category presents a menu

of as many as 24 different control options from which the source can choose to comply with the rule. *Id.* In sum, the various menus list more than 100 potential control measures. *Id.*

The District submitted Rule 4550 to the EPA for approval on September 23, 2005. *See* 70 Fed. Reg. 16,207-01 (Mar. 30, 2005). The EPA proposed approval of the rule on March 30, 2005, and published its final notice approving the rule on February 14, 2006. *See* 71 Fed. Reg. 7,683-01, 7,683-88 (Feb. 14, 2006). Petitioners then challenged the EPA's adoption of Rule 4550 by filing a timely petition for review in this court. We have jurisdiction pursuant to 42 U.S.C. § 7607(b)(1).

### STANDARD OF REVIEW

Title 42 U.S.C. § 7607(b)(1), which gives us jurisdiction to review the EPA's approval of Rule 4550, does not specify a standard of review, so we apply the general standard of review for agency actions set forth in the Administrative Procedure Act ("APA"), 5 U.S.C. §§ 701-706. *Vigil v. Leavitt*, 381 F.3d 826, 833 (9th Cir. 2004). Under the APA, we consider whether the EPA's action was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). This standard requires the EPA to "articulate[ ] a rational connection between the facts found and the choice made." *Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife*, 273 F.3d 1229, 1236 (9th Cir. 2001).

We have held:

[C]ourts must carefully review the record to ensure that agency decisions are founded on a reasoned evaluation of the relevant factors, and may not rubber-stamp . . . administrative decisions that they deem inconsistent with a statutory mandate or that frustrate the congressional policy underlying a stat-

ute . . . . Nevertheless, we may not substitute [our] judgment for that of the agency . . . .

*Friends of Yosemite Valley v. Norton*, 348 F.3d 789, 793 (9th Cir. 2003) (alterations in original) (citation and internal quotation marks omitted). In particular, “where, as here, a court reviews an agency action ‘involv[ing] primarily issues of fact,’ and where ‘analysis of the relevant documents requires a high level of technical expertise,’ we must ‘defer to the informed discretion of the responsible federal agencies.’” *Sierra Club v. EPA*, 346 F.3d 955, 961 (9th Cir. 2003) (alteration in original) (quoting *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 377 (1989)). “Even when an agency explains its decision with ‘less than ideal clarity,’ ” we “will not upset the decision on that account ‘if the agency’s path may reasonably be discerned.’ ” *Alaska Dep’t of Env’tl. Conservation v. EPA*, 540 U.S. 461, 497 (2004) (quoting *Bowman Transp., Inc. v. Ark.-Best Freight Sys., Inc.*, 419 U.S. 281, 286 (1974)).

In reviewing a decision made by an administrative agency, our “proper role is simply to ensure that the [agency] made no ‘clear error of judgment’ that would render its action ‘arbitrary and capricious.’ ” *Lands Council v. McNair*, 537 F.3d 981, 993 (9th Cir. 2008) (en banc) (quoting *Marsh*, 490 U.S. at 378). We are to be “most deferential” when the agency makes “predictions, within its [area of] special expertise, at the frontiers of science.” *Forest Guardians v. U.S. Forest Serv.*, 329 F.3d 1089, 1099 (9th Cir. 2003). We are “not free to ‘impose upon the agency [our] own notion of which procedures are “best” or most likely to further some vague, undefined public good.’ ” *Churchill County v. Norton*, 276 F.3d 1060, 1072 (9th Cir. 2001) (alteration in original) (quoting *Vt. Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc.*, 435 U.S. 519, 549 (1978)).

On questions of statutory interpretation, we follow the two-step approach set out in *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984). First,

we employ “traditional tools of statutory construction” to determine whether Congress has expressed its intent unambiguously on the question before the court. *Id.* at 843 n.9. “If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress. *Id.* at 842-43. If, instead, Congress has left a gap for the administrative agency to fill, we proceed to step two. *Id.* at 843. At step two, we must uphold the administrative regulation unless it is “arbitrary, capricious, or manifestly contrary to the statute.” *Id.* at 844.

### DISCUSSION

Petitioners challenge two aspects of EPA’s approval of Rule 4550 as being arbitrary, capricious, or not in accordance with law. First, Petitioners claim that Rule 4550 does not incorporate “all feasible measures,” as required by 42 U.S.C. § 7509(d)(2). Second, Petitioners assert that Rule 4550’s menu of options for controlling agricultural PM-10 emissions does not constitute BACM, as required by 42 U.S.C. § 7513a(b)(1)(B). We consider each of those arguments in turn.

#### A. 42 U.S.C. § 7509(d)(2)

Section 7509 of the Act concerns the consequences of a state’s failure to attain reduced emissions. The statute is constructed in such a way that, every time a state fails to meet a deadline for its implementation plan or plan revision, the statutory requirements become more stringent. For example, if the EPA initially classifies an area as a moderate nonattainment area, only the RACM standard applies. 42 U.S.C. § 7513a. If an area then fails to meet its deadline, the EPA reclassifies that area as a serious nonattainment area, and the more rigorous BACM standard applies. *Id.* If the same area again fails to meet its deadline, then its plan must provide for attainment by achieving an annual reduction that is not less

than five percent of the amount of emissions as reported in the most recent inventory prepared for the area. *Id.* Additionally, within one year of the EPA Administrator's publication of a notice of failure to attain, the state must submit a revision to the applicable SIP:

[T]he revision shall include such additional measures as the Administrator may reasonably prescribe, including all measures that can be feasibly implemented in the area in light of technological achievability, costs, and any nonair quality and other air quality-related health and environmental impacts.

*Id.* § 7509(d)(2).

Petitioners argue that, under § 7509(d)(2), the District was required to implement *all* feasible measures to control PM-10 emissions without delay, because the San Joaquin Valley had failed to meet its attainment deadlines. Petitioners contend that allowing agricultural operators to choose one control option (among many) from each of a few categories fails to meet the “all feasible measures” standard.

The EPA responds with three separate arguments. First, the EPA contends that § 7509(d)(2) does not apply to Rule 4550 because that statute applies only to the San Joaquin Valley Plan as a whole. Second, the EPA asserts that Petitioners' argument regarding § 7509(d)(2) is untimely because Petitioners failed to raise their objection within 60 days of the date of notice of approval of the San Joaquin Valley Plan. Third, if § 7509(d)(2) does apply to Rule 4550 and if Petitioners raised their objection in time, the EPA argues that its interpretation of § 7509(d)(2) as applied to Rule 4550 must be upheld.

1. *Section 7509(d)(2) applies to Rule 4550.*

The EPA argues that § 7509(d)(2) applies to the San Joaquin Valley Plan as a whole, but not to Rule 4550 on its own.

Specifically, the EPA asserts that it is in the context of a comprehensive attainment plan that the EPA prescribes Clean Air Act planning obligations for a nonattainment area.

[1] We disagree. Nothing in § 7509(d)(2) limits its application to review of the plan in its entirety. To the contrary, the statute plainly provides that § 7509 applies to “*any* implementation plan or *plan revision* required under this part . . . or required in response to a finding of substantial inadequacy.” 42 U.S.C. § 7509(a) (emphases added). Rule 4550 was a required revision to the District’s SIP. *See* 70 Fed. Reg. at 16,207 (“EPA is proposing to approve revisions to the [District’s] portion of the California [SIP]. These revisions concern particulate matter emissions from agricultural operations.”). Because Rule 4550 was a required revision to the District’s SIP, and because § 7509 applies to any plan revision, § 7509 of the Clean Air Act applies not only to the San Joaquin Valley Plan as a whole, but also to Rule 4550 separately.

2. *Petitioners timely raised their objection to § 7509(d)(2).*

Petitioners did not object to the EPA’s interpretation of § 7509(d)(2) during the notice-and-comment period preceding the EPA’s adoption of the San Joaquin Valley Plan in 2004. But, as we have explained, § 7509(d)(2) applies separately to Rule 4550, which is a revision of the Plan. Accordingly, Petitioners had to raise their objection in the notice-and-comment period preceding the EPA’s approval of Rule 4550.

The EPA received a letter from Petitioners, dated April 29, 2005, which asserted that Rule 4550 was defective because it allowed agricultural operators to select only one control measure per category. 71 Fed. Reg. at 7683. Petitioners argued that *every* available and feasible measure to control PM-10 must be mandated. *Id.* Although Petitioners did not cite

§ 7509(d)(2) as authority, the substance of its present argument plainly was raised.

[2] This court “will refuse to consider contentions not presented before the administrative proceeding at the appropriate time,” but waivers of arguments “are not designed to extinguish claims which, although not comprehensively or artfully presented in the early stages of the administrative process, are presented fully before the process ends.” *Getty Oil Co. v. Andrus*, 607 F.2d 253, 256 (9th Cir. 1979). Petitioners did present their argument fully, even if not comprehensively or artfully on account of failing to cite § 7509(d)(2). Therefore, we hold that Petitioners’ argument regarding the applicability of § 7509(d)(2) was not waived.

3. *The EPA’s interpretation of § 7509(d)(2) is reasonable.*

The parties disagree about the interpretation of § 7509(d)(2). Petitioners argue that the EPA must include “all feasible measures” in an implementation plan revision, meaning that the plan revision must include all feasible measures; in their view, the Administrator has discretion only in the sense that he or she may decide what measures are technically possible under statutory criteria. The structure of the Act, Petitioners continue, supports that interpretation because Congress demands more and more stringent control measures when current requirements are insufficient to bring a particular area into attainment.

The EPA offers an alternative reading of § 7509(d)(2). The EPA argues that the section provides that submitted revisions must contain additional measures, but that the only additional measures required are those the Administrator reasonably may choose to prescribe. The measures that the Administrator may reasonably prescribe, the EPA asserts, include all measures that can be feasibly implemented in the area *in light of*

technological achievability, costs, and economic, health, and environmental effects.

[3] At the first step of the *Chevron* analysis, we conclude that § 7509(d)(2) is ambiguous. The first clause states that a plan revision “shall include such additional measures as the Administrator may reasonably prescribe.” 42 U.S.C. § 7509(d)(2) (emphases added). Both of the parties’ interpretations of § 7509(d)(2) are plausible and reasonable, one emphasizing “shall” and the other emphasizing “may.” Because § 7509(d)(2) is ambiguous and the EPA’s statutory interpretation is reasonable, we hold that the EPA acted lawfully by not requiring implementation of “all feasible measures” into Rule 4550.

B. 42 U.S.C. § 7513a(b)(1)(B)

[4] Petitioners next argue that Rule 4550’s menu of options for controlling PM-10 emissions from agricultural sources does not constitute the best available control measures. Section 7513a(b)(1)(B) states that, for areas designated as “serious,” “[p]rovisions to assure that the best available control measures for the control of PM-10 shall be implemented no later than 4 years after the date the area is classified (or reclassified) as a Serious Area.” The EPA set forth its definition of BACM in its Addendum to the General Preamble of the Act:

The BACM is the maximum degree of emissions reduction of PM-10 and PM-10 precursors from a source . . . which is determined on a *case-by-case basis*, taking into account energy, environmental, and economic impacts and other costs, to be achievable for such source through application of production processes and available methods, systems, and techniques for control of each such pollutant.

59 Fed. Reg. at 42,010 n.32 (emphasis added).

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1. *History of Rule 4550 and its EPA approval.*

In a document titled “Revised Final Draft Staff Report,” dated August 19, 2004, the District submitted its CMP Program. The report states that more than half of all directly emitted PM-10 emissions originate from agriculture-related sources and that the purpose of the CMP Program is to limit those emissions. Participation in the program is mandatory unless a source falls below the exemption level. The program is meant to function in the following way: Agricultural operators must select at least one CMP from each of the identified, applicable CMP categories that is most appropriate to their operations.<sup>1</sup> The selected CMPs then must be marked on the applications provided by the District to the agricultural operators. The applications are submitted to the District for approval; when approved by the District, the completed applications constitute CMP Plans.

Rule 4550 is part of the CMP Program, and its purpose “is to limit fugitive dust emissions from agricultural operation sites.” The rule applies only to larger farms and animal feeding operations, but the District estimated that 90% of the harvested acres and more than 70% of the animal population in the San Joaquin Valley would be covered.

In developing Rule 4550, the District’s staff met with agricultural representatives known as the AgTech Committee. The AgTech Committee included representatives from the

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<sup>1</sup>The CMP categories are “Cropland,” “Poultry Operations,” “Dairy Operations,” and “Feedlot Operations.” Each of those categories is divided into four or five subcategories, and a number of CMPs are listed under each subcategory. For example, to reduce PM-10 emissions from unpaved roads in poultry operations, one CMP option is to minimize any and all material that adheres to and agglomerates on all vehicles and equipment from unpaved roads. Ways of accomplishing that goal include maintaining a sufficient length of paved or graveled interior roads to allow mud and dirt to drop off vehicles before exiting the site, or using a “grizzly” to dislodge debris from the tires and undercarriages of vehicles leaving the site.

District, California Air Resources Board, California Cotton Ginners Association, California Cotton Growers Association, Nisei Farmers League, Almond Hullers and Processors Association, Natural Resource Conservation Services, EPA, and local farm bureaus. Additionally, representatives from the California Department of Food and Agriculture, Western United Dairymen, and university researchers participated. The District's staff and the AgTech Committee organized various stakeholder meetings over a two-year period to collect information and discuss the CMP Program. They held two rounds of public workshops to present the proposed rules and a draft list of CMPs. Growers, public agencies, and other interested parties provided comments. The District and the AgTech Committee then held several focus group meetings to discuss compliance costs and financial effects. The AgTech Committee developed a draft list of CMPs potentially suitable to agricultural sources in the San Joaquin Valley nonattainment area. The measures represented a wide array of potential CMPs and were evaluated using available information on technological feasibility, costs, energy, and environmental effects. The AgTech Committee considered comments from various stakeholders and conducted further evaluation itself. Eventually, the draft CMP list was "refined to represent feasible, effective and common sense practices for the nonattainment area[,] which minimize potential negative impacts on local agriculture."

In its "Technical Support Document for EPA's Proposed Rulemaking for the California [SIP]," the EPA evaluated Rule 4550 as submitted by the District. The EPA found that the CMP list, which contains more than 100 practices that are grouped into 18 CMP categories, "is more comprehensive than any similar lists existing in other serious nonattainment areas." The EPA further noted that, when no feasible CMP can be used from the list for a certain category, section 6.2 of Rule 4550 allows an agricultural operator to select a substitute CMP from another category. If an agricultural operator wants to use a CMP not on the CMP list, it may do so after obtain-

ing approval from the District. In order to be approved, the alternative CMP must demonstrate that it achieves PM-10 emission reductions that are at least equivalent to the reductions expected from CMPs on the list.

Rule 4550 requires that each agricultural operator implement at least one CMP for each applicable category but does not require more than one CMP per category. The EPA reasons that this flexibility gives agricultural sources a variety of CMPs to select from in order to tailor PM-10 controls to their individual circumstances without causing an unnecessary economic burden. The EPA contends that a program requiring an individual source to select one control method from a list, but allowing the source to select which method, is most appropriate for its situation. The EPA further emphasizes that giving agricultural sources the discretion to choose from a range of specified options is important for the agricultural sector because of the variable nature of farming and the widely varying economic circumstances of farmers throughout the San Joaquin Valley.

After having evaluated the submitted rule and the CMP list, the EPA concluded that Rule 4550 and the CMP list met the BACM requirements of 42 U.S.C. § 7513a(b)(1)(B). The EPA recommended approval of Rule 4550, and the District adopted it.

*2. The EPA followed its four-step process.*

[5] The EPA has created a four-step process to determine BACM for a particular area: (1) developing an inventory of the sources of PM-10 and PM-10 precursor emissions; (2) evaluating, via modeling, the effect of PM-10 concentrations of various sources to determine which are significant; (3) evaluating the technological and economic feasibility of the potential control measures; and (4) evaluating the costs and energy and environmental impacts of potential BACM. 59 Fed. Reg. at 42,012 13. Those four steps emphasize the need

for flexibility and variability within particular plans. For example, the first step, establishing an inventory of sources of PM-10 and its precursors, specifies that the BACM “applicable in a nonattainment area must be determined on a *case-by-case basis* since the nature and extent of a nonattainment problem may vary within the area and from one area to another.” *Id.* at 42,012 (emphasis added). The EPA further explains that “[n]onattainment problems range from reasonably well-defined areas of violation caused by a specific source or group of sources to violations over relatively broad geographical areas due predominantly to large numbers of small sources widely-distributed over the area.” *Id.* With regard to the third step, evaluating alternative control techniques, the EPA recognizes that the “technological feasibility of reducing emissions from area sources depends on the ability to alter the characteristics that affect emissions from the sources.” *Id.* at 42,013. The characteristics to which the EPA refers “have to do with the size or extent of the sources, their physical characteristics[,] and the operating procedures.” *Id.*

[6] Petitioners argue that the EPA failed to follow its own four-step process in determining BACM before approving Rule 4550. We are not persuaded.

[7] The administrative record shows that the District developed a detailed emissions inventory of source categories for PM-10 and PM-10 precursors, as required by the first step, in 2004 as part of its revisions to the San Joaquin Valley SIP. The EPA reviewed that inventory when it was submitted to it as part of the total revisions to the SIP. 69 Fed. Reg. at 30,035. By approving all of the revisions to the SIP in 2004, the EPA necessarily approved of the inventory of source categories submitted by the District. *Id.*

[8] The record also shows that the EPA reviewed the District’s *de minimis* analysis, as required by the second step, when it proposed to approve the San Joaquin Valley SIP in 2004. 69 Fed. Reg. at 5,418. In that review, the EPA con-

cluded “that the commitments and rules for the significant source categories below meet the RACM/BACM requirements” of 42 U.S.C. § 7513a(b)(1)(B). *Id.*

[9] The third step for determining BACM is the evaluation of the technological and economic feasibility of the control measures. 59 Fed. Reg. at 42,012. The record demonstrates that the District, together with the AgTech Committee, conducted a thorough process in developing the CMP Program, in which the feasibility of potential control measures was evaluated. Further, recognizing that new practices will become available with the advent of technology, the District built into the CMP Program a means for upgrading the CMP list as necessary. The District has committed to review the CMP list every three years. The District’s staff stated in 2004 that it is committed to using the best available research and to continue to work with the EPA to ensure that thorough evaluations and assessments of possible new practices will be conducted. The EPA noted the possibility of new practices in its approval of Rule 4550, stating that BACM might change over time “to a progressively tighter or more ambitious program at later dates.”

[10] The fourth and final step in determining BACM is to evaluate the economic feasibility of implementing the control measures. 59 Fed. Reg. at 42,013. The record contains detailed analyses of the CMPs and an assessment of the costs, feasibility, and effects associated with them. 71 Fed. Reg. at 7,685. Those analyses were included in the Staff Report that the EPA reviewed. 70 Fed. Reg. at 16,208. The District evaluated the costs of the CMP Plans to the agricultural industry in its own Cost Effectiveness Analysis and Socioeconomic Analysis. Additionally, the District’s Staff Report, on which the EPA relied when it approved Rule 4550, includes a detailed chart that lists the potential CMPs, describes each, states the benefits of each, and sets forth examples.<sup>2</sup> That Staff

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<sup>2</sup>The chart spans 20 pages and discusses the CMPs for croplands and poultry, dairy, and feedlot operations. An illustrative CMP for cropland is

Report provides the District's rationale for selecting the various options included in Rule 4550 as BACM.

We have reviewed the EPA's approval of a similar SIP for compliance with 42 U.S.C. § 7513a(b)(1)(B). In *Vigil*, the petitioners challenged the EPA's approval of a SIP submitted by Arizona to regulate a PM-10 serious nonattainment area. 381 F.3d at 830. The SIP contained a list of 34 potential control measures divided among three categories of farm activities. *Id.* at 835. The regulation required commercial farmers to implement at least one control measure per category. *Id.* at 836. The petitioners in that case argued that the SIP did not meet BACM requirements because the state ought to require farmers to implement more than one control measure in each category. *Id.*

We observed that the “[p]etitioners’ argument would be compelling if the [Clean Air] Act required a state to reduce its emissions to the maximum extent possible, regardless of cost.” *Id.* But the EPA had defined BACM to mean the maximum degree of emissions reduction that would be determined on a case-by-case basis. *Id.* We thus held that the EPA properly concluded that Arizona had provided for the maximum degree of emissions reduction, all things considered, because of the variability within the area and the impossibility that a

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conservation irrigation. The chart lists its benefits as conserving water, reducing weed population, reducing the need for tillage, and reducing soil compaction. The chart issues the following directive as examples of methods for conservation irrigation: use of drip or buried line in crop production; use of pressure bombs, water flow meters, or soil monitoring devices; use of irrigation management consultants; and use of evapo-transpiration factors. An example CMP for a feedlot operation is the addition of fibrous material to working areas, which prevents dust disturbance. The chart lists the following as possible methods: adding wood chips or other materials to sorting alleys and high traffic areas to hold moisture and keep down dust disturbance; putting damp manure solids right off the separator into the heifer pens on a daily basis; and working the pens with a rotary harrow.

single control measure would work equally well for all agricultural operators. *Id.* at 837. We also acknowledged that the EPA had reviewed the process by which Arizona arrived at its SIP, a process that included assembling representatives from agriculture, state, and federal agencies and the University of Arizona meeting over several years, holding public hearings, and receiving public comments. *Id.* at 838. We concluded that the EPA's approval of Arizona's general permit rule as BACM was not arbitrary and capricious because of "the uncertainties involved in prescribing agricultural rules, the measures that Arizona adopted, and the process by which Arizona had arrived at its BMPs." *Id.*

[11] The EPA's approval process in this case was much like the process used in *Vigil*. First, the District recognized that Rule 4550 must provide flexibility to the agricultural operator in choosing which control measures to use because of the immense variability of agricultural sources. The EPA noted the need for such flexibility in its evaluation. 71 Fed. Reg. at 7,684; 69 Fed. Reg. at 30,014. Indeed, in *Vigil*, we recognized the need for flexibility with regard to agricultural sources of PM-10 emissions because "[a]gricultural sources are unlike other stationary sources and unlike sources such as automobiles that have common design features and may be subjected to a common or uniform control measure." 381 F.3d at 838. Due to the variability of weather and market conditions, as well as the diversity among the agricultural operators that fall under Rule 4550, it is reasonable to provide agricultural operators the flexibility to choose whichever methods of PM-10 reduction will be feasible for their individual properties.

Second, the measures adopted here reasonably advance the goal of reducing PM-10 emissions. The CMP list contains more than 100 practices that are divided among 18 CMP categories. Each agricultural operator must adopt a minimum of one CMP from every applicable category. Relying on the conclusions reached by the District and the AgTech Committee,

the EPA concluded that Rule 4550 and the CMP list provide the maximum degree of PM-10 emission reductions achievable from agricultural sources in the San Joaquin Valley.<sup>3</sup>

Third, the process used by the District and approved by the EPA is very similar to the one we accepted in *Vigil*: A committee composed of representatives from the government, agricultural industry, and academia convened over a two-year period, held public hearings, and received public comments. Rule 4550 and the CMP list grew out of that collaborative effort. There is no evidence in the record that the process was improper in any way.

[12] Petitioners attempt to distinguish *Vigil* by asserting that we face a different issue than the one presented in *Vigil*: whether the EPA demonstrated that the controls included in the rule's menu meet the stringency requirements of BACM. Although the context is different, our inquiry into whether the EPA properly followed the procedures set forth by the Act remains the same. And, just as we held in *Vigil*, there is no evidence here that the process which led to the creation and adoption of Rule 4550 was improper.

3. *Rule 4550 meets statutory requirements.*

Finally, Petitioners challenge the substance of Rule 4550. Our role is only to ensure that the EPA made no "clear error of judgment" that would render its action "arbitrary and capricious." 5 U.S.C. § 706(2)(a). Petitioners complain that "[t]he record contains only a few examples of the actual control effectiveness of the various options," but there is no statutory

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<sup>3</sup>The EPA's prediction turned out to be reasonable. The District's Conservation Management Practices Program Report for 2005 found that, from August 19, 2004, the date of the District's adoption of Rule 4550, through December 31, 2005, the District estimated that PM-10 emissions reductions were 35.4 tons per day, which surpassed the CMP Program's commitment of PM-10 emissions reductions of 33.8 tons per day.

requirement that the District outline the actual control effectiveness of every option in order to obtain the EPA's approval.

Additionally, Petitioners complain that the CMP list lacks sufficient detail in its description of the control measures. This argument misconstrues the manner in which the CMP Program is designed to work. Rule 4550 sets forth the process for obtaining an approved CMP Plan from the District. The CMP Plan itself contains the requirements with which each particular source must comply. Section 6.1 of Rule 4550 contains specific information that must be included in each application for each agricultural site. Pursuant to sections 6.3 and 6.4, the application is then submitted, evaluated by the District, and either approved or disapproved as the applicant's enforceable CMP Plan. The application forms developed by the District for this purpose are crop-specific and solicit the details of how a chosen CMP is to be implemented.

[13] Because the EPA made no clear error of judgment in ruling that Rule 4550 complies with BACM, because the EPA followed its regulatory process, and because that process was consistent with one we approved in *Vigil*, we hold that the EPA's approval of Rule 4550 did not violate 42 U.S.C. § 7513a(b)(1)(B).

PETITION DENIED.

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THOMAS, Circuit Judge, concurring:

I agree with the majority that the EPA's cramped reading of § 7509(d)(2) cannot be sustained, that § 7509(d)(2) applies to Rule 4550, and that the petitioners did not waive their objection to the EPA's interpretation. I am also in accord that the EPA's interpretation of § 7509(d)(2)—that the statute requires only those measures that the Administrator may rea-

sonably prescribe in light of technological achievability, costs, and economic, health, and environmental effects—is reasonable.

Additionally, I concede that our decision in *Vigil v. Leavitt*, 381 F.3d 826 (9th Cir. 2004), controls the question of whether the “menu” approach to controlling emissions satisfies the statutory requirement that an area designated as having a “serious” air pollution problem must implement the best available control measures. Because I see no principled distinction to be drawn between *Vigil* and this case, I concur in full with the majority opinion.

Nevertheless, if I were writing on a clean slate, unconstrained by *Vigil*, I would grant the petition. Although I see no principled distinction between this case and *Vigil*, I do not believe that the EPA’s *Vigil*-approved regime draws any distinction—much less a principled one—between the “best available control measures” to be used in areas of “serious” pollution and the “reasonably available control measures” required in areas of “moderate” pollution. If *Vigil* afforded any analytical difference between the two, it is an illusion to me now. As such, the EPA’s approval does not comply with statutory requirements.

The San Joaquin Valley is one of the nation’s top producing agricultural areas, sometimes referenced as “the nation’s salad bowl.” But the abundance of produce comes at a price. The Valley also hosts one of the nation’s worst particulate air pollution problems, the bulk of which is created by agricultural activity and propelled by nature. As even the casual traveler driving down the Grapevine on the I-5 up to Sacramento’s Highway 51 can attest, “you don’t need a weatherman to know which way the wind blows.”<sup>1</sup> Gusts

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<sup>1</sup>BOB DYLAN, *Subterranean Homesick Blues*, on BRINGING IT ALL BACK HOME (Columbia Records 1965).

“blowing down the backroads”<sup>2</sup> carry dangerous particulate emissions from the Valley to various locations in California, from Yosemite to the Mojave Desert.

Reacting to the Valley’s attainment failure, the EPA re-designated it as a “serious non-attainment area,” and charged the District with producing a pollution control plan that would implement “*best* available control measures,” as opposed to “*reasonably available* control measures.” However, rather than proposing such a plan, the District suggested that individual growers and producers choose which of a lengthy list of dust control measures could be implemented with the least cost, fuss or muss—leaving regulation to little more than a simple twist of fate. Nothing in the plan prevents a grower from choosing the least effective measures in each category, even if it would be as feasible and less expensive to implement a more effective measure. The plan completely lacks uniformity in controlling the manner in which particulate matter shall be released, even within the same agricultural category or geographic region. Neighbors raising the same crop are not regulated in the same way. Simply put, the plan is a creature void of form. As such, it cannot comply with the statutory directive that the region use “the best available control measures.”

In the EPA’s own provisional definitions of these terms, to which we defer, economic impacts are properly considered in determining best available control measures. Nevertheless, “when comparing the terms ‘reasonable’ and ‘best’ as applied to control measures, the word ‘best’ strongly implies that there should be a *greater emphasis on the merits of the measure or technology alone and less flexibility in considering other factors.*” Addendum to General Preamble, 59 Fed. Reg. 41,998, 42,011 (Aug. 16, 1994) (emphasis added).

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<sup>2</sup>BOB DYLAN, *Idiot Wind*, on BLOOD ON THE TRACKS (Columbia Records 1975).

“Best” is a word that needs little elaboration, so it is one of those tell tale signs that a concept is being drained of meaning when elaborate rationalizations are posited. Here, the justification for not requiring producers and growers to use the “best available control measures” is that agriculture is complicated. That observation, in some senses, is doubtless true. But the subject at hand is dust control—not, for example, how technologically best to remove sulphur from coal. The pollution control methods offered producers and growers as alternatives in the District’s plan are such measures as observing the speed limit on dirt roads and cleaning out livestock pens when the wind is known to be calm.

Unquestionably, the notion of preventing soil erosion is not new. Plato worried about “the richer and softer portions of the soil having fallen away, and the mere skeletons of the land being left.”<sup>3</sup> In more modern times, the devastation of Oklahoma’s dust bowl forged new methods of dust control in farming. Likewise, techniques of proper livestock management have been standardized for more than half a century.<sup>4</sup> To rationalize the lack of any basic dust control standards by arguing that agriculture is just too complicated to regulate defies reality and common sense.

To be sure, if we were considering the District’s implementation of “*reasonably* available control measures,” applied in areas of moderate pollution, I would have no quarrel. In many ways, the District’s plan is quite laudable, particularly in these hard times, when margins in our vital agricultural economy are thin or non-existent, and many growers and producers are facing potential insolvency. Given that grim reality, of which I am acutely aware, I certainly cannot fault the District for

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<sup>3</sup>PLATO, CRITIAS (360 B.C.E.).

<sup>4</sup>M.E. ENSMINGER, THE STOCKMAN’S HANDBOOK (Interstate Printers and Publishers, 1955); FRANK B. MORRISON, FEEDS AND FEEDING (Morrison Publishing Co., 21st ed. 1948).

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attempting to minimize the financial impact of environmental regulations, while committing to improve ambient air quality.

Enticing as those considerations are, however, they are quite beside the point to the legal analysis required of us. When an area's air pollution problem has graduated from "moderate" to "serious," Congress has mandated that the "best available control measures" be employed. Perhaps that standard doesn't require growers to control every grain of sand. But can we really say with a straight face that an amalgam of second, third, or tenth best available control measures is, in the aggregate, the "best available control measure?" In the San Joaquin Valley, the answer is blowing in the wind.