

III. Review of the Arizona State Submittals Addressing These Provisions

A. Is the Maintenance Plan Approvable?

1. Did the State Meet the CAA Procedural Provisions?

On June 18, 2002, ADEQ submitted to EPA the "Ajo Sulfur Dioxide Nonattainment Area, State Implementation and Maintenance Plan" and a request to redesignate the area to attainment. The State verified that it had adhered to its SIP adoption procedures. On October 30, 2002, we found that the submittal met the completeness criteria in 40 CFR Part 51, Appendix V, which must be satisfied before EPA formal review.

2. Does the Area Qualify for Review Under the Seitz Memo?

a. Were the Area's Violations Caused by a Major Point Source of SO_x Emissions that Is No Longer in Operation?

As discussed above, the only major source of SO_x emissions within the Ajo nonattainment area was the Phelps Dodge Mining Company's Ajo Incorporated (PDAI) copper smelter, which ceased operation in 1985. The last recorded 24-hour or annual average exceedances of the primary NAAQS at PDAI occurred in 1984. During the monitoring network's history, annual average SO₂ levels were generally one half of the current NAAQS standard (0.030 ppm). ADEQ removed the SO₂ monitor in 1985, the smelter operating permits expired, the smelting equipment was removed over a period of years, and the smelter was completely dismantled by February 1996. No new sources of SO₂ of the magnitude of PDAI have located in the area. Thus, Ajo meets this criterion for review under the Seitz Memo.

b. Has the State Met the Requirements of the Seitz Memo?

As discussed below, the State has addressed the requirements in the Seitz Memo for emissions inventories, modeling, permitting of major new sources, and agreement to commence monitoring if a new major source locates in the area. Therefore, the State has met the special criteria in the Seitz Memo for approval of maintenance plans and redesignation requests.

(1) Emissions Inventory. The State provided the three emissions inventories specified in the Seitz Memo for the sources in, and within 50 kilometers of, the Ajo nonattainment area. For a representative year when the copper smelter was in operation (1981), direct SO_x emissions from smelting

operations were 39,596 tpy. The ADEQ submittal identifies only a single existing point source within the Ajo Area, the Phelps Dodge Generator Station, with 2000 SO₂ emissions of about 1 tpy, and 2015 projected emissions of 1.2 tpy. Phelps Dodge has only operated the generators as emergency/back up electric supply in recent years. The ADEQ submittal also identified the proposed Gila Bend Landfill, and projected its emissions at 29.7 tpy in 2015.³ We conclude that the inventories are complete, accurate, and consistent with applicable CAA provisions and the Seitz Memo.

(2) Modeling. Past EPA policy memoranda on SO₂ redesignations all ask for dispersion modeling. The Seitz Memo asks for dispersion modeling of all point sources within 50 km of the nonattainment area boundary. Screening dispersion modeling was performed with SCREEN3 using conservative assumptions about source parameters and the meteorology. The modeling indicated that the existing and then-proposed (Gila Landfill) sources would likely have an impact of about 66 percent of any of the SO₂ standards.

The Seitz Memo requires a modeling analysis that shows point sources were the dominant sources contributing to high SO₂ concentrations in the airshed. While MPR has been accepted by EPA for modeling of smelters, as a rollback method it assumes that the monitored SO₂ violations are completely due to the smelter being modeled. Thus, it cannot be relied upon for this analysis. Instead, screening modeling can be used to show that non-smelter sources have only an insignificant contribution. Since their emissions have changed relatively little since the time that emission controls were placed on the smelter, this same screening modeling shows that the non-smelter sources were insignificant in the past, and hence the smelter was the dominant source contributing to past high SO₂ concentrations. EPA therefore finds that the ambient SO₂ modeling requirement for redesignations and maintenance plans is met.

(3) Permitting of New Sources. For the Ajo SO₂ nonattainment area, the nonattainment area new source review (NSR) permit program responsibilities are shared by ADEQ and Pima Department of Environmental Quality (PDEQ). ADEQ administers the preconstruction review and permitting provisions of Arizona Administrative Code, Title 18, Chapter 2, Articles 3 and

4. PDEQ administers the NSR program under Pima County Code, Title 17, Chapter 17.12 and Chapter 17.16, Article VIII. All new major sources and modifications to existing major sources are subject to the NSR requirements of these rules. We have not yet fully approved the ADEQ and PDEQ NSR rules.

Section 172(c)(5) requires NSR permits for the construction and operation of new and modified major stationary sources anywhere in nonattainment areas. We have determined that areas being redesignated from nonattainment to attainment do not need to comply with the requirement that an NSR program be approved prior to redesignation provided that the area demonstrates maintenance of the standard without Part D nonattainment NSR in effect. The rationale for this decision is described in a memorandum from Mary Nichols dated October 14, 1994 ("Part D New Source Review (Part D NSR) Requirements for Areas Requesting Redesignation to Attainment"). We have determined that the maintenance demonstration for Ajo does not rely on nonattainment NSR. Prevention of Significant Deterioration (PSD) is the replacement for NSR in attainment areas, and part of the obligation under PSD is for a new source to review increment consumption and maintenance of the air quality standards. PSD also requires preconstruction monitoring. Therefore, the State need not have a fully approved nonattainment NSR program prior to approval of the redesignation request.

ADEQ and PDEQ have PSD permitting programs (A.A.C. R18-2-406 and Pima County Code (PCC) 17.16.590) that were established to preserve the air quality in areas where ambient standards have been met. The State's PSD program for all criteria pollutants except PM-10 was approved into the SIP effective May 3, 1983 (48 FR 19879). The federal PSD program for PM-10 was delegated to the State on March 12, 1999. Pima's PSD program (for all criteria pollutants) was delegated effective April 14, 1994. The PSD program requires stationary sources to undergo preconstruction review before facilities are constructed, modified, or reconstructed and to apply Best Available Control Technology (BACT). These programs will apply to any major source wishing to locate in the Ajo area once the area is redesignated to attainment. The ADEQ and PDEQ commitments to treat any major source in or near Ajo as "new" under the PSD program satisfies the preconstruction permit provision of the

³ Since its original submission, ADEQ has informed EPA that the Gila Bend Regional Landfill permit was terminated by the permittee on August 28, 2002, and this proposed source was never constructed.