

**Commonwealth of Pennsylvania  
Department of Environmental Protection**



**Conewango Township,  
Pleasant Township, Glade Township,  
and City of Warren, Warren County  
Redesignation Request**

**May 2004**

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## **REDESIGNATION REQUEST**

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The Commonwealth of Pennsylvania requests the redesignation of the Conewango Township, Pleasant Township, Glade Township, and City of Warren (Warren County Sulfur Dioxide (SO<sub>2</sub>) nonattainment areas) to attainment of the SO<sub>2</sub> National Ambient Air Quality Standards (NAAQS). The Commonwealth of Pennsylvania also requests that the status of Mead Township and Clarendon Borough be changed from “Cannot be classified” to “Better than national standards” for SO<sub>2</sub>. The concurrently submitted maintenance plan and the fully approved attainment demonstration (68 FR 2454) show that the ambient air quality in the Warren County SO<sub>2</sub> nonattainment areas meets the national standards for SO<sub>2</sub>, and the emission reductions responsible for the air quality improvement are both permanent and enforceable. This redesignation request describes how the Warren County SO<sub>2</sub> nonattainment areas satisfy each of the Clean Air Act’s Section 107(d)(3)(E) criteria for redesignation to attainment.

**Section 107(d)(3)(E) of the CAA states that an area can be redesignated to attainment if the following 5 criteria are met:**

**1. The NAAQS has been attained:**

A review of the ambient air quality data demonstrates that the NAAQS have been achieved in the Warren County SO<sub>2</sub> nonattainment areas. Quality assured/ quality controlled data for the most recent three whole calendar years has been entered into the U.S. Environmental Protection Agency’s (EPA’s) Air Quality System. This data demonstrates that the ambient air quality attains the annual and 24-hour health based primary standards and the three-hour secondary standard. The primary standards are an annual mean of 0.030 parts per million (ppm), not to be exceeded in a calendar year, and a 24-hour average of 0.14 ppm, not to be exceeded more than once per calendar year. (50 C.F.R. §50.4.) The secondary standard is a 3-hour average of 0.5 ppm, not to be exceeded more than once per calendar year. (50 C.F.R. §50.5.) The basis of Pennsylvania’s original recommendation of nonattainment for this area was air dispersion modeling conducted in 1976. No exceedances of the standard occurred after remedies to correct the SO<sub>2</sub> problem were implemented, and certain sources that contributed to the SO<sub>2</sub> problem in the area have been permanently shutdown. The following table summarizes the monitored data that has been collected in Warren County by the Pennsylvania Department of Environmental Protection (PADEP) since 1987:

		Sulfur Dioxide (parts per million)															
		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Cobham Park Rd																	
	Annual	0.008	0.010	0.008	0.010												
	2MAX 24 Hr	0.041	0.050	0.034	0.029												
	2MAX 3 Hr	0.134	0.096	0.074	0.057												
Lexington Ave																	
	Annual		0.014	0.010	0.011	0.012	0.012	0.010									
	2MAX 24 Hr		0.034	0.042	0.041	0.040	0.098	0.031									
	2MAX 3 Hr		0.057	0.095	0.100	0.134	0.288	0.116									
345 E 5th Ave																	
	Annual								0.010	0.008	0.009	0.008	0.008	0.006	0.007	0.006	
	2MAX 24 Hr								0.026	0.028	0.038	0.028	0.031	0.024	0.027	0.023	
	2MAX 3 Hr								0.045	0.096	0.082	0.103	0.072	0.070	0.075	0.066	
Overlook Site																	
	Annual									0.014	0.015	0.016	0.015	0.013	0.016	0.014	
	2MAX 24 Hr									0.032	0.069	0.098	0.097	0.092	0.087	0.100	
	2MAX 3 Hr									0.088	0.330	0.252	0.227	0.214	0.209	0.273	

\*\*\*Primary Standard – Annual Mean = 0.030 ppm\*\*\*

\*\*\*Primary Standard – 24-hour Mean = 0.14 ppm\*\*\*

\*\*\*Secondary Standard – 3 hour Mean = 0.5 ppm\*\*\*

## 2. The applicable implementation plan has been fully approved:

EPA fully approved the modeled attainment demonstration for the Warren County SO<sub>2</sub> nonattainment areas and permit emission limitations for two individual sources in Warren County as a State Implementation Plan (SIP) revision for the area through a direct final rule, published January 17, 2003 (68 FR 2454) and effective March 18, 2003. Pennsylvania's Prevention of Significant Deterioration (PSD) program was approved by EPA on August 21, 1984 (49 FR 33128). The PSD program requires new sources to implement Best Available Control Technology and limits a new source's allowable impact on the environment. EPA granted "limited" approval of Pennsylvania's revised new source review (NSR) program and published a final rule in the Federal Register on December 7, 1997 (62 FR 64722). On October 19, 2001, EPA subsequently converted the limited approval to "full" approval for all areas of the Commonwealth except the five-county Philadelphia area (Bucks, Chester, Delaware, Montgomery and Philadelphia Counties).

**3. The improvement in air quality is due to permanent and enforceable reductions in emissions:**

The improvement in air quality in the Warren County SO<sub>2</sub> areas is due to permanent and enforceable emissions reductions. SO<sub>2</sub> emissions from the United Refinery are capped by federally-enforceable permit conditions. The Reliant Energy power station has shutdown and generated emission reduction credits (ERCs). If these credits were used for a new unit, the emission rate used in the attainment modeling demonstration would be the applicable emission rate limit. Therefore, the total potential SO<sub>2</sub> emission rates in the area are capped at the attainment demonstration levels. A PSD analysis would require that any new units be capped at rates below the level required to ensure continued attainment. Allowable emission inventories for 2003 and 2015 show that emissions over the 10-year planning period covered by the maintenance plan will not lead to any exceedances of the standard.

**4. A maintenance plan with contingency measures has been fully approved under Section 175A of the CAA (42 U.S.C.A. 7505a):**

The maintenance plan for the Warren County SO<sub>2</sub> areas is being submitted to EPA for approval as a SIP revision concurrently with this request for redesignation. The maintenance plan shows that the NAAQS for SO<sub>2</sub> will be maintained for at least 10 years after redesignation. Eight years following redesignation, the Commonwealth will submit a revised plan that ensures attainment through 2025.

**5. The areas have met all applicable requirements under Section 110 of the CAA (42 U.S.C.A. §7410) and Subchapter I, Part D of the CAA (42 U.S.C.A. §§ 7501 - 7515.):**

The Warren County SO<sub>2</sub> nonattainment areas have met all applicable and necessary requirements of Section 110 and Subchapter I, Part D of the CAA. As referenced above, the modeled attainment demonstration for the Warren County SO<sub>2</sub> areas and permit emission limitations for the two stationary sources in Warren County were fully approved by EPA as a SIP revision for the area, and Pennsylvania's PSD and NSR programs were approved by EPA and incorporated in the SIP. EPA approval of a transportation conformity SIP revision for the area is not required for redesignation because the nature of the area's previous SO<sub>2</sub> nonattainment problem has been determined to be overwhelmingly attributable to stationary sources. The modeling demonstration submitted with the attainment demonstration SIP revision contained a detailed emissions inventory of the allowable emissions for all of the sources of SO<sub>2</sub> in the area. That inventory was found to be acceptable by EPA. SO<sub>2</sub> emissions from area and mobile sources are insignificant in comparison to the emissions from stationary sources and estimated background concentrations used in the attainment modeling approved by EPA.