the Census. The Department of Commerce provides "that within metropolitan complexes of 1 million or more population, separate component areas are defined if specified criteria are met. Such areas are designated primary metropolitan statistical areas (PMSA's); and any area containing PMSA's is designated a consolidated metropolitan statistical area (CMSA)." ²

* * * * *

3. In appendix C to part 58, section 2.4 is added to read as follows:

Appendix C—Ambient Air Quality Monitoring Methodology

* * * * *

- 2.4 A monitoring method for SO_2 used for obtaining 5-minute average concentrations in connection with targeted monitoring of an SO_2 source likely to produce short-duration, high-level concentration peaks must be a designated reference or equivalent method as defined in § 50.1 of this chapter and must meet the supplemental specifications for 5-minute monitoring given in table B–1 of part 53 of this chapter.
- 4. In appendix D to part 58, section 1, the last two sentences of the third paragraph are removed, and replaced by four new sentences to read as follows:

Appendix D—Network Design for State and Local Air

Monitoring Stations (SLAMS), National Air Monitoring Stations (NAMS), and Photochemical Assessment Monitoring Stations (PAMS)

* * * * * * 1. * * *

* * * It should be noted that this appendix contains no criteria for determining the total number of stations in SLAMS networks. A minimum number of lead SLAMS is prescribed as well as a minimum required number of SO₂ SLAMS for those counties not within the boundaries of any CMSA/MSA. Also, a minimum required number of SO₂ SLAMS is listed for targeted sources of SO₂ emissions. The optimum size of a particular SLAMS network involves trade-offs among data needs and available resources which EPA believes can best be resolved during the annual network design review process.

* * * * *

§ 2.3 [Amended]

5. In appendix D, the first paragraph of section 2.3 is revised, and a new paragraph is added between the first and second paragraphs to read as follows:

* * * * * * 2. * * * 2.3 * * *

The spatial scales for SO₂ SLAMS monitoring are the micro, middle, neighborhood, urban, and regional scales. The most important spatial scales to effectively characterize the emissions of SO₂ from stationary sources are the micro, middle, and neighborhood scales. Because of the nature of SO₂ emissions and the nature of distributions over metropolitan areas, the neighborhood scale is the most likely scale to be represented by a single measurement in the metropolitan area where the concentration gradients are less steep, but only if the undue effects from local sources (minor or major point sources) can be eliminated. Urban scales would represent areas where the concentrations are uniform over a larger geographical area. Regional scale measurements would be associated with rural areas and urban background measurements.

Microscale—Emissions from stationary sources may, under certain plume conditions, result in high 5-minute and 24-hour ground level concentrations at the microscale level. The microscale measurements would represent an area

impacted by the plume with dimensions extending up to approximately 100 meters.

6. In appendix D, section 2.3, a sentence is added to the end of the paragraph titled "Middle Scale" to read as follows:

* * * * * * 2.3 * * *

 $\label{eq:middle Scale * * * Emissions from stationary sources that cover larger geographic areas may also result in high 5-minute and 24-hour SO_2 concentrations.$

7. In appendix D, section 2.3, a sentence is added to the last paragraph to read as follows:

* * * * * * 2.3 * * *

* * * The use of SO_2 saturation monitors is encouraged to determine the areas of maximum concentration from sources of SO_2 emissions as an aid to locating reference or equivalent SO_2 monitors.

* * * * *

8. In appendix D, § 2.3, seven new paragraphs are added at the end of this section to read as follows:

* * * * *

The required number of sites needed to measure SO₂ concentrations for population exposure in the metropolitan areas of the counties are discussed in section 3.2 of this appendix. However, there may be significant point source emissions in other counties which are not within the geographic boundaries of any CMSA/MSA. To determine the SO₂ concentrations and exposures for these counties, a minimum number of SLAMS SO₂ monitors will be required. Table 2 shows the minimum required number of SLAMS SO₂ monitors for those counties which are not a part of any CMSA/MSA and also have SO_2 emissions greater than 20,000 tons/year as defined in the Air Facility Subsystem of AIRS.

TABLE 2—STATE AND LOCAL AIR MONITORING STATIONS CRITERIA

| Area | SO ₂ emissions (tons/year) | Minimum number of SO ₂ stations |
|--------------------------------------------------------------|---------------------------------------|--------------------------------------------|
| Counties (or parts of counties) not included in any CMSA/MSA | >100,000
20,000–100,000
<20,000 | 2
1
0 |

Monitors located to meet this requirement would generally be either middle or neighborhood scale of representativeness to measure population exposure. The monitors are not necessarily required to be located in the county where the SO_2 emissions originate, but should be located in the maximum concentration area. The maximum concentration area may be determined by modeling the SO_2 emission sources and/or in combination with SO_2 saturation monitoring studies.

The EPA will consider a request to waive all or part of these requirements for these areas. If monitoring has been conducted for a minimum of 2 years and the measured concentrations were low, then EPA will consider a request to waive all or part of the monitoring requirement in accordance with EPA guidelines.

In addition to the above requirement for SO_2 monitors, SLAMS monitors are required to be deployed around targeted sources of SO_2 emissions in order to produce 5-minute, 3-hour, 24-hour, and annual average concentration measurements. A listing of

which sources are to be monitored, the schedule for monitoring, and the rationale for selecting the sources shall be prepared by the State in a targeted SO₂ monitoring plan to be reviewed as part of the annual SLAMS network review. The implementation of this plan will be as expeditious as practicable.

To adequately monitor and characterize air quality around point sources of SO₂ emissions would require multiple point monitors or open path analyzers (or a combination of both). Financial and practical

² See footnote 1 in paragraph (ii) of this section.