**Section 291.103 Overview of Procedures**

a) These procedures are designed to serve as guidelines for applicants desiring to develop particulate and sulfur dioxide emission limitations for a subject emission source.

b) The procedures consist of two phases. The first phase requires an analysis of the air quality in the vicinity of the subject source for a base year. For the base year analysis a point and area source emissions inventory, consisting of emission rates and stack parameters for all point sources and emission rates for county-wide area sources affecting the study areas, are required. Base year air quality, meteorolgical data and the necessary sub-county allocation parameters (i.e., employment, population, etc. used to allocate county-wide area source emissions to sub-county grid squares) are required to be valid for the time frame for which the emissions inventory is valid.

c) The point and area source emissions inventory data, along with air quality data and meteorological data, should be input to an acceptable air quality dispersion model. This simulation model should be validated and calibrated by the applicant. Procedures for and results of this effort should be carefully documented. After calibration, the simulated air quality in the vicinity of the subject source should be compared with the ambient air quality standards as shown in the following table. If a violation is indicated with the subject source operating at the proposed emission rates, the source must reduce the emission rates so that the AAQS are not exceeded. If a violation is not indicated, the source should proceed to Phase II.

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| --- | --- | --- | --- |
| Ambient Air Quality Standards | | | |
| Pollutant | Time of Average | Primary  Standard | Secondary  Standard |
| Particulate Matter | Annual Geometric Mean | 75 ug/m3 | 60 ug/m3 |
| (TSP) | 24 hour | 260 ug/m3 | 150 ug/m3 |
| Sulfur Dioxide | Annual Geometric Mean | 80 ug/m3 | None |
| (SO2) | 24 hour | 365 ug/m3 | None |
|  | 3 hour | None | 1300 ug/m3 |

d) Phase II of the analysis is designed to assess the impact of the subject source on the ambient air quality for the year 1980, as a minimum. The base year point and area source emissions should be multiplied by appropriate growth factors developed by the applicant for the specific study area. When determining future annual air quality, meteorological data averaged over a minimum period of five consecutive years and model calibration data developed for the base year analysis should be utilized. Dispersion modeling should again be performed to determine if violations of the AAQs are indicated for the projection year(s). If a violation is indicated, the subject source must revise its emission rates so that the AAQS are not violated. If no violation of the AAQS are indicated by dispersion modeling, the subject facility should submit the proper application to the Agency for evaluation.