

SANTA BARBARA COUNTY AIR POLLUTION CONTROL DISTRICT

**RULE 803 - PREVENTION OF SIGNIFICANT DETERIORATION**

*(Adopted 4/17/1997)*

**A. Applicability**

The purpose of Prevention of Significant Deterioration is to provide for the review of new and modified stationary sources of air pollution and provide mechanisms by which Authorities to Construct such sources may be granted without interfering with the protection of areas designated attainment or unclassifiable.

Prevention of Significant Deterioration requirements shall apply to all new stationary sources and all modifications to existing stationary sources which, after construction emit or may emit any attainment pollutants. Stationary sources which emit or may emit precursors to nonattainment pollutants shall, in addition to the requirements of Nonattainment Review, be subject to the increment protection provisions contained within the Prevention of Significant Deterioration requirements; including Section F (Modeling), G (Pre and Post Construction Monitoring), (Visibility, Soils, and Vegetation Analysis), G.2 (Protection of Class I Areas) and I (Ambient Air Quality Standards and Air Quality Increments).

**B. Exemptions**

1. This Rule shall not apply to prescribed burning of forest, agriculture or range land, road construction or any other non-point source, common to timber harvesting or agricultural practices.

**C. Definitions**

See Rules 102 and 801 for definitions applicable to this Rule.

**D. Requirements -- Best Available Control Technology**

1. An applicant shall apply Best Available Control Technology to a new source or modification of an existing source, for any net emissions increases of any attainment pollutant which is equal to or greater that any emission level shown in Table 1. In addition, an applicant shall apply Best Available Control Technology to a new source or modification of an existing major stationary source or major modification, for any net emissions increase which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 microgram per cubic meter (24-hour average).

**Table 1 - PSD Best Available Control Technology & Modelling Thresholds**

Pollutant	Pounds/day	Tons/year

Particulate Matter	120	--
PM <sub>10</sub> and its precursors	80	--
Carbon Monoxide	550	--
NO <sub>x</sub> , SO <sub>x</sub> , and ROCs	120	--
Lead	3.28	--
Asbestos	0.04	--
Beryllium	0.0022	--
Mercury	0.55	--
Vinyl Chloride	5.48	--
Fluorides	16.4	--
Sulfuric Acid Mist	38.4	--
Total Reduced Sulfur (including H <sub>2</sub> S)	54.8	--
Reduced sulfur compounds	54.8	--
Municipal waste combustor organics	--	0.0000035
Municipal waste combustor metals	--	15
Municipal waste combustor acid gases	--	40
All other attainment pollutants or precursors	120	--

2. For any stationary source subject to this Rule, Best Available Control Technology shall be an emission limitation based on the maximum degree of reduction for each pollutant which would be emitted from any new or modified stationary source, which on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of Best Available Control Technology result in emissions which would exceed the emissions allowed under the applicable New Source Standards of Performance.

#### E. Requirements - Emission Offsets

## **1. Offset Requirement, General**

a. Offsets shall be actual, average quarterly enforceable emission reductions from existing sources sufficient to offset all anticipated quarterly emission increases, as calculated according to Section J. of this Rule, associated with a new or modified stationary source and which will result in a net air quality benefit.

b. In areas other than Class I areas or Class I impact areas, offsets as specified in E.2 below shall be required for any attainment pollutant or total suspended particulates for a new or modified stationary source with a net emissions increase exceeding 240 pounds per day, for reactive organic compounds, nitrogen oxides, sulfur oxides, total suspended particulates, or PM<sub>10</sub>.

## **2. Location of Offsets and Offset Ratios**

Net emissions increases from a proposed new or modified source subject to this Rule, which is to be located outside a Class I area or Class I impact area, are to be offset with emissions reductions from within a 15 mile radius of the proposed source. The offset ratio shall be 1.2 to 1 for reductions in emissions located outside of the proposed source but within the 15 mile radius, and the Control Officer shall analyze the impact on the air quality increment.

a. If an applicant demonstrates to the satisfaction of the Control Officer that sufficient offsets do not exist at sources owned by the applicant, and are not available at other sources within a 15 mile radius of the proposed source, offsets shall be obtained from an upwind area, within the air basin at a ratio as specified by the Control Officer, and the Control Officer shall analyze the impact on the air quality increment.

b. If an applicant demonstrates to the satisfaction of the Control Officer that sufficient offsets do not exist at sources owned by the applicant, and are not available at other sources within the 15 mile radius of the proposed source, or within the upwind portion of the air basin, offsets shall be obtained from an upwind area, outside the air basin at a ratio and distance based on an air quality analysis sufficient to demonstrate that no air quality increment will be exceeded.

c. If an applicant demonstrates to the satisfaction of the Control Officer that sufficient offsets do not exist at sources owned by the applicant and are not available at other sources within a 15 mile radius or in an upwind area, the Control Officer may choose to allow an applicant to use a portion of the remaining air quality increment.

## **F. Requirements - Air Quality Impact Analysis: Modeling**

1. The applicant for a new or modified stationary source which will have a net emissions increase of any attainment pollutant which is equal to or greater than any amount specified in Table 1 shall demonstrate, by Air Quality Impact Analysis, to the satisfaction of the

Control Officer through use of air quality models meeting the requirements of Section K (3) (Air Quality Models) and Rule 805 (Air Quality Impact Analysis) that their emissions will cause no ambient air quality standard or increment to be exceeded. In addition, the Control Officer may require an Air Quality Impact Analysis for any new or modified stationary source that the Control Officer has determined has the potential to cause or contribute to a violation of an air quality standard or consume the maximum allowable increment increase.

2. The applicant for a new or modified stationary source which emits in its entirety more than 20 pounds per hour of any attainment pollutant or total suspended particulates shall demonstrate to the satisfaction of the Control Officer through use of air quality models meeting the requirements of Section K(3) (Air Quality Models) and Rule 805 (Air Quality Impact Analysis) that their emissions will cause no ambient air quality standard or increment to be exceeded.

3. If a new or modified source will impact a Class I Area, the applicant shall analyze the stationary source's impact on air quality related values for those values which the Federal Land Manager has identified.

**G. Requirements - Air Quality Impact Analysis: Pre and Post Construction Monitoring**

1. The owner or operator of a new or modified stationary source which will have a net emissions increase of more than any emission level shown in Table 2 of any other attainment pollutant shall conduct ambient air quality monitoring with pre-construction monitoring not less than one year in duration. New non-major stationary sources or modifications can be exempt from this requirement if the Control Officer finds that there will be sufficient data available to determine the effects that the emissions from the stationary source or modification may have, or are having on air quality in the area. New major stationary sources and major modifications must comply with the pre-construction monitoring requirement unless the Control Officer finds that there will be sufficient data available to determine the effects that the emissions from the stationary source or modification may have, or are having, on air quality, in the area; and if the applicant can demonstrate to the satisfaction of the Control Officer that the new major source or major modification impacts less than those listed in 40 CFR 52.21(I)(8). Post construction monitoring shall be required until such time as the Control Officer determines the effects emissions from the stationary source or modification may have. All monitoring shall comply with Environmental Protection Agency guidelines (see 40 CFR 58, Appendix B) and other instructions of the Control Officer.

**Table 2: Prevention of Significant Deterioration Monitoring Thresholds**

Pollutant	Pounds/day
Particulate Matter	120
PM <sub>10</sub>	80
	240

All other attainment pollutants
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## **2. Protection of Class I Areas**

Any net emissions increase of less than 120 pounds per day of an attainment pollutant or total suspended particulates, except PM<sub>10</sub>, which is 80 pounds per day, or 15 tons per year, associated with a stationary source emitting over 100 tons per year of any attainment pollutant which would construct within a Class I or Class I impact area and would increase ambient pollutant concentration within the Class I area by one microgram per cubic meter (24 hour average) or more shall be subject to monitoring.

## **H. Requirements - Visibility, Soils, and Vegetation Analysis**

For a new or modified stationary source which emits, in its entirety, more than any emission level shown in Table 2 of any attainment pollutant, the applicant shall provide the Control Officer with analysis of impairment to visibility, soils, and vegetation that would occur as a result of the source or modification and general commercial, industrial, and other growth associated with the source or modification.

## **I. Requirements - Ambient Air Quality Standards and Air Quality Increments**

1. In no case shall the emissions from the new or modified stationary source cause the violation of an ambient air quality standard or lead to the violation of any air quality increment. The provisions contained in Rule 805, shall be used to estimate the effects of a new or modified source. In making this determination the Control Officer shall take into account the mitigation of emissions through offsets obtained pursuant to this Rule.

2. The applicant may consume the full increment range, where noted in Table 3, if the applicant enters into a Memorandum of Agreement with the District providing for alternative mitigation. The cost of such mitigation shall not exceed \$333 per year per microgram/m<sup>3</sup> over the lower level of the increment range for this pollutant based on the maximum modeled concentration of the first year of operation of the stationary source, and thereafter based on the single actual worst case contribution by the stationary source to monitored concentrations during the previous year. If post-construction monitoring shows no consumption beyond the lower level of the increment range for any period of three consecutive years after the year of peak projected emissions, then no further monitoring or mitigation shall be required for the purposes of this sub-section. If, subsequent to the termination of monitoring or mitigation, the APCD determines that consumption has increased beyond the lower level of the increment range, District may require reinstatement of post-construction monitoring or mitigation. As an alternative to monitoring-based mitigation costs, the applicant may choose, with consent of the District, to base the maximum cost of mitigation for the first year on the maximum modeled concentration of the projected peak emissions year, thereafter depreciating this amount by 10 percent per year over 10 years or the life of the project, whichever is less. The District's consent shall not be unreasonably withheld provided that the 10 year depreciation schedule results in an equitable, realistic approximation of the applicant's projected annual emission rate. Cost of mitigation during the final year of the project shall be prorated to reflect the

portion of the year during which the facility is in operation.

This increment and mitigation requirement shall be reviewed if the Air Resources Board or Environmental Protection Agency develop an increment or other alternative with supporting technical rationale.

Baseline air quality shall be the ambient concentration level reflecting actual air quality as monitored or modeled as of the existing baseline date shown in the air quality increments table, minus any contribution attributable to emissions from major stationary sources and modifications (as defined in 40 CFR 52.21(b) as it existed on 8-7-80) constructed since January 6, 1975.

**Table 3 - AIR QUALITY INCREMENTS**

Maximum Allowable Increase

(in micrograms/cubic meter)

Pollutant: Monitoring Level	Maximum Allowable Increase		Air Quality Standard	
	Class I	Class II	Baseline Date	Quality Standard
<b>Total Suspended Particulates:</b>				
Annual Geometric Mean	5	19	8-7-77	
24-Hour Maximum	10	37		
<b>Sulfur Dioxide:</b>				
Annual Arithmetic Mean	2	20	8-7-77	80
24-Hour Maximum	5	91	8-7-78	365
3-Hour Maximum	25	512	8-7-78	1,300 <del>0</del>
<b>Nitrogen Oxides:</b>				
Annual Arithmetic Mean	2.5	25	2-8-88	100
1-Hour Maximum <sup>1,*</sup>	10	100	1-1-84	470
		to 470		
<b>Carbon Monoxide:</b>				
8-Hour Maximum	200	2500	1-1-84	10,000
1-Hour Maximum <sup>1</sup>	800	10000	1-1-84	40,000
<b>Reactive Organic Compounds<sup>1</sup>:</b>				
3-Hour Maximum*	3	40-160	1-1-84	
<b>Particulate Matter (&lt;10 µm):</b>				

24-Hour Maximum	8	30	8-7-77	150
24-Hour Maximum <sup>1,*</sup>		12-30	1-1-84	50

\* The applicant may consume the full increment range pursuant to the requirements of Section I.2.

<sup>1</sup> Not a federal increment.

## **J. Requirements - Calculations**

1. The maximum design capacity (potential to emit) of a new stationary source or modification shall be used to determine the emissions from the new source or modification. However, the applicant may agree to federally enforceable limitations on the operation of the new source or modification. If those limitations are included in both Authorities to Construct and Permits to Operate issued according to the Rule, then those limitations shall be used to establish the emissions from the new source or modifications.
2. The emissions from an existing source shall be based on the actual operating conditions of the existing source averaged over the three consecutive years immediately preceding the date of application, or such shorter period as may be applicable in cases where the existing source has not been in operation for three consecutive years. The Control Officer may approve any other time period of at least three years within five years prior to the date of application that is more representative of normal source operation. If violation of laws, rules, regulations, permit conditions, or orders of the District, the Air Resources Board, or the Environmental Protection Agency occurred during the period used to determine the operating conditions, then adjustments to the operating conditions shall be made to determine the emissions the existing source would have caused without such violations.
3. The maximum net increase in quarterly (January through March, April through June, July through September, October through December) emissions from new stationary sources and modifications shall be offset by the average quarterly decrease in emissions from one or more existing sources, after this decrease has been reduced by the appropriate ratio in Section E.2.

## **K. Requirements - Administration**

### **1. Air Quality Increment Analysis**

The Control Officer shall evaluate the impact on the air quality increment of the emissions from the proposed source and any offsets obtained pursuant to Section F.2. (offset requirement). Any emissions from secondary emissions associated with the source shall be included in the determination of increment consumption.

### **2. Review of Air Quality Increment Consumption**

The Control Officer shall assess the remaining air quality increment a minimum of once

every five years. Should a stationary source subject to E.2. be cited, the frequency of assessment of the remaining air quality increment shall be every two years. The assessment of the remaining air quality increment shall be based on any changes in emissions including area sources and any changes in air quality background levels. For sulfur dioxide and particulate matter, the emissions from major stationary sources (as defined in 40 CFR 52.21(b) as it existed on 8-7-80) constructed since January 6, 1975 shall be included in air quality increment consumption. For nitrogen dioxide, the emissions from major stationary sources constructed since February 8, 1988 shall be included in air quality increment consumption. Within sixty days of a determination of an increment violation the District will initiate action to mitigate the violation.

### **3. Air Quality Models**

All air quality models used for the purposes of this Rule shall be consistent with the requirements specified in Rule 805.D.1 for air quality models unless the Control Officer finds that such model is inappropriate for use. After making such finding the Control Officer may designate an alternate model only after allowing for public comment and only with concurrence of the Air Resources Board and the Environmental Protection Agency. All modeling costs associated with siting of a stationary source shall be borne by the applicant.

### **4. Permit Notice**

The Control Officer shall provide a copy of the portion of the application dealing with the emissions and air quality impacts of a new source, for any permit application for a proposed major stationary source whose emissions would affect a Class I area, to the Federal Land Manager and the federal official charged with direct responsibility for management of the affected lands within 10 days of the determination that a Class I area will be impacted. The Federal Land Manager shall be notified within 10 days of all subsequent actions relating to the consideration of such Permit.

### **5. Preliminary Decision**

Following acceptance of an application as complete, the Control Officer shall perform the evaluations required to determine compliance with this Rule and make a preliminary written decision as to whether an authority to construct should be approved, conditionally approved, or disapproved. The decision shall be supported by a succinct written analysis. The District shall transmit to the Air Resources Board its preliminary written decision and analysis for sources subject to E (Emission Offsets), F (Modeling), G.2. (Protection of Class I Areas), and I (Air Quality Increments) no later than the date of publication as required in Section K 6), below. For major sources, the District shall transmit to USEPA its preliminary written decision and analysis.

### **6. Publication and Public Comment**

Within 10 days following a preliminary decision to approve or conditionally approve a permit pursuant to Sections E (Offsets) and G 2) (Protection of Class I Areas) of this Rule, Control Officer shall publish in at least one newspaper of general circulation in the District

a public notice stating the preliminary decision of the Control Officer, noting how pertinent information can be obtained, and inviting written public comment for a 30-day period following the date of publication. The public notice will include notification of the opportunity for a public hearing and will indicate the anticipated degree of increment consumption. A public hearing may be called if sufficient interest is generated or if any aggrieved party so requests in writing within the 30-day comment period. After considering all comments, including those presented at any hearings held, the Control Officer will reach a decision and notify the appropriate parties.

## **7. Sources Impacting Class I Areas**

The Control Officer shall accept, and consider comments offered within public comment period following date of publication, by the Federal Land Manager of any lands contained within a Class I area impacted by a proposed facility or modification. If the Federal Land Manager demonstrates that the emissions from a proposed facility or modification would have an adverse impact on the air quality-related values (including visibility) of any federal mandatory Class I areas, and if the Control Officer concurs with such demonstration, then the Control Officer shall deny the Authority to Construct.

## **8. Federal Land Manager Appeals**

If the Control Officer issues an authority to construct with which the Federal Land Manager or the federal official charged with direct responsibility over the specified lands does not concur, the decision may be appealed to the Hearing Board.

## **9. Public Inspection**

The Control Officer shall make available for public inspection at the District's office the information submitted by the applicant and the Control Officer's analysis no later than the time that notice of the preliminary decision is published, pursuant to Section K.5), above. Information submitted which contains trade secrets shall be handled in accordance with Section 6254.7 of the Government Code and relevant sections of the Administrative Code of the State of California. Further, all such information shall be transmitted, no later than the date of publication, to the Air Resources Board and the Environmental Protection Agency regional office, and to any party which requests such information at the current cost of mailing and duplication.

## **10. Authority to Construct, Final Action**

Within the applicable time period specified in Rule 208, the Control Officer shall take final action on the application after considering all written comments. The Control Officer shall provide written notice of the final action to the applicant, the Environmental Protection Agency, and the Air Resources Board, and shall publish a notice of approval of the permit in a newspaper of general circulation and shall make the notice and all supporting documents available for public inspection at the District's office.

## **11. Requirements, Permit to Operate**

As a condition for the issuance of a permit to operate, the Control Officer shall require that the new source or modification, and any sources which provide offsets, be operated in the manner assumed in making the analysis to determine compliance with this Rule, or as conditioned in the Authority to Construct. The Permit to Operate shall include specific emissions limitations which reflect Best Available Control Technology.

The operation of any source which provides offsets shall be subject to enforceable permit conditions, containing specific emissions limitations to ensure that the emission reductions will be provided in accordance with the provisions of this Rule and maintained throughout the operation of the new or modified source which is the beneficiary of the offsets. Where the source of offsets is not subject to a permit, a written contract shall be required between the applicant and the owner or operator of such source, which contract, by its terms, shall be enforceable by the Control Officer. The permit and contract shall be submitted to the Air Resources Board to be forwarded to the Environmental Protection Agency as part of the State Implementation Plan. A violation of the emission limitation provisions of any such contract shall be chargeable to the applicant.

## **12. Issuance, Permit to Operate**

The Control Officer shall issue a Permit to Operate a stationary source subject to the requirements of this Rule if it is determined that any offsets required as a condition of an Authority to Construct or amendment to a Permit to Operate will commence not later than the initial operation of the new or modified source, and that the offsets shall be maintained throughout the operation of the new or modified source which is the beneficiary of the offsets. Further, the Control Officer shall determine that all conditions specified in the Authority to Construct have been or will be complied with by any dates specified. Conditions which have not been met at the time the Permit to Operate is issued shall be incorporated into the Permit to Operate. Where a new or modified stationary source is, in whole or in part, a replacement for an existing stationary source on the same property, the Control Officer may allow a maximum 90 days as a start-up period for simultaneous operation of the existing stationary source and the new source or replacement.