San Joaquin Valley Air Pollution Control District

Ambient Air Quality Analysis
Project Daily Emissions Assessment

May 31, 2013

The San Joaquin Valley Air Pollution Control District has published guidance on determining significance of impacts to State and Federal ambient air quality standards in its *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI).

State and Federal ambient air quality standards have been established to protect public health and welfare from the adverse impacts of air pollution. A project would be considered to have a significant impact if its emissions are predicted to cause or contribute to a violation of any California Ambient Air Quality Standard (CAAQS) / National Ambient Air Quality Standard (NAAQS). The District applies a threshold of 100 pounds per day of any criteria pollutant to determine significance impact.

1. Development Projects

1.1 Project below District Rule 9510 (Indirect Source Review) Applicability Thresholds

Development projects below ISR applicability thresholds are therefore, not expected to generate sufficient criteria pollutant emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation. Thus, for development projects (including transportation and transit projects) below District Rule 9510 (Indirect Source Review) Applicability Thresholds, no emission calculation is required for ambient air quality analysis purposes, and an ambient air quality analysis is not required.

Table 1 – Rule 9510 Applicability Thresholds

Development Project Type	Space/Size
Residential	50 dwelling units
Commercial	2,000 square feet
Light Industrial	25,000 square feet
Heavy Industrial	100,000 square feet
Medical Office	20,000 square feet
General Office	39,000 square feet
Educational	9,000 square feet
Governmental	10,000 square feet
Recreational	20,000 square feet
Transportation/Transit	construction exhaust emissions equal or exceed two (2.0) tons NOx or two (2.0) tons of PM_{10}

1.2 Project Above District Rule 9510 (Indirect Source Review) Applicability Thresholds

Project Construction Emissions

The daily rate of criteria pollutant emissions is calculated based on pollutant-by-pollutant basis, using the total emissions generated during a period of time and divided by the number of days of construction during this period.

For example:
Project construction emissions (Construction equipment): 6 tons NOx
Construction period: 6 months
Actual construction number of days: 150 days:

Daily NOx construction emissions:
(6 tons-NOx x 2,000 lb/ton)/ 150 days = 80.0 lb/day

Conclusion = NOx emissions less than 100 lb/day. In this case an ambient air quality analysis would not be required for any construction related criteria pollutant emissions.

Project Operational Emissions

The daily rate of criteria pollutant emissions is calculated based on pollutant-by-pollutant basis using the total emissions generated during a period of time and divided by the number of days of operation.

For example:
Project annual operational emissions: 22 tons-NOx
Actual operational number of days: 365 days:

Daily NOx operational emissions:
(22 tons-NOx x 2,000 lb/ton)/ 365 days = 120.5 lb/day

Conclusion = NOx emissions greater than 100 lb/day. In this case an ambient air quality analysis would be required for all criteria pollutants resulting from the operation of the development project.

2. Stationary Source Projects

The general term, “stationary sources,” refers to facilities that are subject to Air District air quality permitting. “Stationary source projects” are proposals that include, at least in part, equipment or activities that are subject to District air quality permitting.

Construction Emissions

The daily rate of criteria pollutant emissions is calculated based on pollutant-by-pollutant basis, using the total emissions generated during a period of time and divided by the number of days of construction during this period.

For example:
Project construction emissions (Construction equipment): 6 tons-NOx
Construction period: 6 months
Actual construction number of days: 150 days:

Daily NOx construction emissions:
(6 tons-NOx x 2,000 lb/ton)/ 150 days = 80.0 lb/day

Conclusion = NOx emissions less than 100 lb/day. In this case an ambient air quality analysis would not be required for any construction related criteria pollutant emissions.

Operational Emissions – Permitted Equipment and Activities

For permitted equipment, District Rule 2201, *New Source Review*, requires that an ambient air quality analysis be performed for all pollutants when project related emissions would result in new or increased emissions equaling or exceeding 100 pounds per day on a pollutant-by pollutant basis.

Therefore, for project with increases in on-site operational emissions limited to permitted equipment and activities and exceeding the 100 lbs. per day threshold, an ambient air quality analysis is required for CEQA purposes and will be addressed by the District during the permitting process.

Operational Emissions – Non-Permitted Equipment and Activities

The daily rate of criteria pollutant emissions is calculated based on pollutant-by-pollutant basis using the total emissions generated during a period of time and divided by the number of days of operation.

For example:
Project annual operational emissions: 22 tons-NOx
Actual operational number of days: 365 days:

Daily NOx operational emissions:
(22 tons-NOx x 2,000 lb/ton)/ 365 days = 120.5 lb/day

Conclusion = NOx emissions greater than 100 lb/day. In this case an ambient air quality analysis would be required for all criteria pollutants resulting from the operation of the development project.