

Sacramento Metropolitan Air Quality Management District (the District) Construction Air Quality Mitigation Plan Protocol

PLANNING PHASE

WHEN?

When the air quality analysis demonstrates that a proposed project's construction emissions may exceed the District's 85 pounds per day NO_x threshold of significance, the jurisdiction will apply "all feasible mitigation" to the project as required by CEQA. An air quality analysis for construction emissions generally includes the following emission sources: fuel combustion from mobile heavy-duty diesel and gasoline powered equipment, portable auxiliary equipment, material haul trucks, worker commute trips, soil disturbance, demolition activities, paving and architectural coating applications.

WHAT? Feasible Mitigation

On-Site Construction Mitigation

The District's standard on-site construction mitigation helps developers establish compliance with the "all feasible mitigation" requirement by targeting emission reductions from off-road construction equipment. The standard construction mitigation language (aka, Enhanced Exhaust Control Practices), below, is added to the environmental document and becomes part of the approval of the project:

Category 1: Reducing NO_x emissions from off-road diesel powered equipment

The project shall provide a plan for approval by [DERA, City of x, SMAQMD, etc] demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NO_x reduction and 45 percent particulate reduction compared to the most recent CARB fleet average at time of construction; and

The project representative shall submit [to DERA, City of x, SMAQMD, etc.] a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.

and:

Category 2: Controlling visible emissions from off-road diesel powered equipment

The project shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately, and [DERA, City of x, SMAQMD, etc.] shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supercede other SMAQMD or state rules or regulations.

and/or:

If at the time of construction, the SMAQMD has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with SMAQMD prior to construction will be necessary to make this determination.

Some projects require large amounts of material hauling, i.e. demolition, levee work. If material hauling emissions are a significant portion of the daily NOx emissions, a jurisdiction should require mitigation for haul trucks on this type of project. One mitigation strategy is to require the use of trucks with newer model year engines to reduce NOx emissions.

Off-Site Construction Mitigation Fee

If the projected construction related emissions for a project are not reduced to the District's threshold of significance (85 pounds/day of NOx) by the application of the standard on-site construction mitigation for off-road equipment and mitigation requiring newer model year engines in haul trucks then an off-site construction mitigation fee should be applied.

This fee is used by the District to fund emission reduction programs in the air basin. One program example is the District's Heavy Duty Incentive Program through which select owners of heavy duty equipment in Sacramento County can repower or retrofit their old engines with cleaner engines or technologies.

PROCESS

The jurisdiction adds the standard on-site construction mitigation language and mitigation for haul truck emissions into the environmental document, project approval conditions, and in the Mitigation Monitoring and Reporting Program (MMRP) for the project.

The jurisdiction calculates the off-site mitigation fee and includes it, if applicable, in the environmental document, project approval conditions, and in the MMRP. The District has developed a fee calculation spreadsheet which is available for use by jurisdictions. The fee calculation takes into account the excess construction emissions, the number of days those emissions occur, the cost to reduce emissions, and the administrative cost for the District to run the mitigation program. The current acceptable cost to reduce one ton of emissions is \$16,640 (based on the cost effectiveness formula established in California's Carl Moyer Incentive Program).

TIMING NOTES

The fee calculation needs to be performed prior to the publication of the EIR or MND. This way, the fee can be included in the environmental document as a specific mitigation. Payment of that fee should be required to be remitted to the District **before** the issuance of a grading permit or approval of improvement plans.

CONSTRUCTION PHASE

WHEN?

Prior to mobilizing equipment to begin construction activities, the project proponent and/or construction company must contact the District and provide the equipment list for District review, and if applicable haul truck information.

WHY?

To insure the equipment complies with the standard on-site construction mitigation requirements and haul truck emissions are being reduced if newer model engines mitigation was required.

PROCESS

The proponent and/or construction company submits a list of its off-road mobile construction equipment (>50 horsepower and used more than 40 hours on the job) to the District. The proponent and/or construction company may use the model equipment list which can be downloaded from www.airquality.org. Through the use of the model equipment list and the construction mitigation calculator (also available from the District's website), the District and proponent and/or construction company can determine if the proposed off-road equipment fleet will result in the 20% reduction in NOx and 45% reduction in particulate emissions. If the equipment fleet does not meet the reduction requirements, the District will work with the proponent and/or construction company to develop an equipment fleet that will meet the reduction requirements. The District will then send a letter to the proponent and/or construction company and the jurisdiction confirming the fleet meets the mitigation requirements (the confirmation letter along with the completed model equipment list and construction mitigation calculator run is called the Construction Mitigation Plan).

If haul truck mitigation is part of the project, the proponent provides information needed to show emissions are being reduced, usually make of vehicles, model year of engines, and usage information.

Any mitigation fees must also be paid prior to construction activities starting at the project site.

TIMING NOTES

The review and confirmation process must be completed prior to the jurisdiction issuing a grading permit or approving improvement plans. The jurisdiction can put a hold on any site work until proof of District confirmation of mitigation is provided or can stop work if at any time the proponent and/or construction company is out of compliance.