

4. Construction Generated Emissions of Criteria Air Pollutants

The District distinguishes two types of projects, Type 1 and Type 2. Type 1 projects are land use projects in which an operational phase exists. Type 2 projects have no land use component. Examples of Type 2 projects are road construction and levee projects. The District recommends that construction emissions generated by the two types of projects be evaluated and mitigation measures applied as described below.

Type 1: Is a land use project in which an operation phase exists (such as retail/commercial development or residential housing projects). The emissions generated during the operational phase of the project are considered long term and will be used to determine significance of the project. The District recommends the use of URBEMIS (most recent version), or other District approved model, to calculate operational and construction phase emissions.

If the operational emissions of a Type 1 project do not exceed the operational thresholds, and the construction emissions of NO_x or ROG do not exceed the 25 lbs/day averaged over the length of the project or the PM₁₀ emissions do not exceed 80 lbs/day, the District recommends the following construction phase Standard Mitigation Measures:

1. Implement the Fugitive Dust Control Plan
2. Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions limitations (40 percent opacity or Ringelmann 2.0).
3. The contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation.
4. Limiting idling time to 5 minutes – saves fuel and reduces emissions. (State idling rule: commercial diesel vehicles- 13 CCR Chapter 10 Section 2485 effective 02/01/2005; off road diesel vehicles- 13 CCR Chapter 9 Article 4.8 Section 2449 effective 05/01/2008)
5. Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
6. Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
7. Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (ARB) Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultations with the ARB or the District to determine registration and permitting requirements prior to equipment operation at the site.

If the operational emissions of a Type 1 project do not exceed the operational thresholds, but the construction phase emissions exceed the construction thresholds of 25 lbs/day of NO_x or ROG averaged over the length of the project and 80 lbs/days of PM₁₀, the District recommends the Standard Mitigation Measures listed above in addition to the following Best Available Mitigation Measures for Construction Phase:

1. All grading operations on a project should be suspended when winds exceed 20 miles per hour or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.
2. Construction sites shall be watered as directed by the Department of Public Works or Air Quality Management District and as necessary to prevent fugitive dust violations.
3. An operational water truck should be available at all times. Apply water to control dust as needed to prevent visible emissions violations and offsite dust impacts.
4. Onsite dirt piles or other stockpiled particulate matter should be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind blown dust emissions. Incorporate the use of approved non-toxic soil stabilizers according to manufacturer's specifications to all inactive construction areas.
5. All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions.
6. Apply approved chemical soil stabilizers according to the manufacturers' specifications, to all-inactive construction areas (previously graded areas that remain inactive for 96 hours) including unpaved roads and employee/equipment parking areas.
7. To prevent track-out, wheel washers should be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.
8. Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.
9. Provide temporary traffic control as needed during all phases of construction to improve traffic flow, as deemed appropriate by the Department of Public Works and/or Caltrans and to reduce vehicle dust emissions. An effective measure is to enforce vehicle traffic speeds at or below 15 mph.
10. Reduce traffic speeds on all unpaved surfaces to 15 miles per hour or less and reduce unnecessary vehicle traffic by restricting access. Provide appropriate training, onsite enforcement, and signage.
11. Reestablish ground cover on the construction site as soon as possible and prior to final occupancy, through seeding and watering.
12. Disposal by Burning: Open burning is yet another source of fugitive gas and particulate emissions and shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (trash, demolition debris, et. al.) may be conducted at the project site. Vegetative wastes should be chipped or delivered to waste to energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials offsite for disposal by open burning.

Additional mitigation measures may be available and lead agencies should contact the District for more information.

Type 2 Projects: This type of project has no operational phase. The construction phase emissions are the only emissions generated by the project and significance should be based on construction

phase emissions. The URBEMIS or other District recommended land use model may not be the most appropriate for calculating emissions from these types of projects. The District recommends the Roadway Construction Emissions Model to calculate emissions from linear construction projects, such as new roadways, road widening, and levee projects. This model is available to download at: <http://www.airquality.org/ceqa/index.shtml>. Other District recommended models may be available, and the lead agency should contact the District for more information.

A Type 2 project is considered to be a less than significant impact if the averaged project life emissions do not exceed 25 lbs/day of NO_x or ROG, and the daily emissions of 80 lbs/day of PM₁₀. For example, if a project is six months, then the maximum allowed emissions are 4500 lbs or 2.25 tons. For projects that occur over multiple years, the maximum allowed emissions of NO_x and ROG are 4.5 tons/year. The project should implement Standard Mitigation Measures (above) and prepare a ND.

If the Type 2 project average project life emissions exceed the thresholds of 25 lbs/day of NO_x or ROG, or daily emissions of 80 lbs/day of PM₁₀, the project must apply Best Available Mitigation Measures for Construction Phase (above) and include other mitigation to reduce the impact to below the significant thresholds. A MND may be prepared, which includes all mitigation measures, if the project is successful at mitigating emissions below the thresholds. If the project cannot mitigate below the thresholds of significance, the project should prepare an EIR and incorporate all feasible mitigation measures. The District staff are available to assist lead agencies and project applicants with selection and incorporation of feasible mitigation measures.

4.1 Special Considerations for Construction Phases of Projects

In addition to the construction air quality thresholds and mitigation measures above, there are a number of special conditions, local regulations or state/federal rules that apply to construction activities. These conditions must be addressed in proposed construction activity.

Sensitive Receptors

The proximity of sensitive receptors to a construction site constitutes a special consideration and may require an evaluation of toxic diesel particulate matter. Examples of sensitive receptor locations include schools, day care centers, parks/playgrounds, hospitals or nursing centers, and residential dwelling units. If a project is located within 1,000 feet of a sensitive receptor location, the impact of diesel particulate matter should be included in the environmental analysis. For more information on diesel particulate matter, please refer to Section 6 Toxic Air Contaminants.

Diesel Idling Restrictions

On-road vehicles must adhere to the idling restrictions of Section 2485 of Title 13 of the California Code of Regulations. The regulation applies to vehicles with a gross vehicular weight rating of 10,000 pounds and licensed for operation on highways. In general, the regulation restricts vehicle idling of the primary diesel engine to no more than 5 minutes in any location. The regulation also prohibits operation of a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on a vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 100 feet of a restricted area.

Off-road vehicles must adhere to the idling restrictions of Section 2449(d)(3) of the California Air Resources Board's In-Use Off-Road Diesel Regulation. The regulation restricts idling time to 5 minutes. For more information refer to: www.arb.ca.gov/regact/2007/ordies107/frooal.pdf.

Asbestos

Naturally Occurring Asbestos (NOA) and asbestos containing material may be encountered during construction phase of a project. NOA is most likely to be found in the foothills and mountainous portions of the Feather River District. Asbestos containing materials can be present during demolition and remodeling, as well as found in utility pipes or pipelines. For more information on asbestos, refer to Section 6 Toxic Air Contaminants.

Permits

Portable engines 50 horsepower (hp) or greater, and certain types of equipment commonly used during construction activities may require California statewide portable engine equipment registration (issued by the CARB) or an Air District permit. The following list is an example of types of equipment/operations that may require this type of permit:

- Power screens, conveyors, diesel engines, and/or crushers;
- Portable generators and equipment with engines that are 50 hp or greater;
- Internal combustion engines;
- Unconfined abrasive blasting operations;
- Concrete batch plants;
- Rock and pavement crushing;
- Tub grinders; and
- Trommel screens.

If the above types of equipment/operations are part of the proposed project, the project applicant and/or lead agency should contact the District for more information. Equipment/Operations that typically require an Air District permit for the operational phase of the project are discussed in Section 9 Permitted Sources.