

DEQ Air Quality Frequently Asked Questions – Crushing and Screening Operations and Asphalt Plants**Crushing and Screening:**

- 1) What are the main pollutants of concern?
 - Emissions from the production of sand and gravel consist primarily of particulate matter (PM) and particulate matter less than 10 micrometers (PM10) in aerodynamic diameter. The following activities produce particulate emissions:
 - Crushers, Screens, Conveyors, Loadout Systems, Stockpiles, Storage Bins and Haul Roads.
- 2) How are these emissions controlled?
 - Particulate matter emissions are controlled by water spray, fog spray, surfactant, covered screens and covered conveyors. Emissions from haul roads and material storage areas must be controlled by watering or applying a chemical dust suppressant.
- 3) What about the engine?
 - Plants are usually powered by electricity. As these sources are often portable and set up in undeveloped locations without access to utility power, they must provide their own electricity which is usually by portable generators powered by diesel engines. Diesel-fired engines are sources of PM10, as well as oxides of nitrogen (NOx) and carbon monoxide (CO) gaseous emissions.
 - The EPA regulates exhaust emissions from these mobile nonroad engines. The EPA sets standards that limit the amount of pollution an engine can emit and sets sulfur standards for nonroad diesel fuels. EPA and engine manufacturers work together to design engines to meet the progressively stringent emission standards.
- 4) What does the DEQ Air Quality Bureau do to regulate these sources?
 - Portable crushing and screening operations are required to register their equipment. The source must also notify DEQ at least 15 days before beginning to operate at any proposed new location.
 - Sources must be operated such that the facility does not exceed applicable limits (8,000,000 tons as a rolling 12-month total at any location).
 - Visible emissions from operating equipment shall not exceed 20% opacity averaged over 6 minutes.
 - For certain sources, visible emission performance test must be conducted within 180 days of initial start-up.
 - Dust from haul roads, access roads, parking lots and general plant areas must be treated with water or chemical dust suppressant to minimize emissions.
- 5) What can I do if I think the source isn't following the rules and emitting pollution over their limit?
 - Call DEQ's Enforcement Staff at (406) 444-5328.

Asphalt Plants:

- 1) What are the main pollutants of concern?
 - Emissions from hot mix asphalt plant include PM, NOx and CO that come from the following types of equipment:
 - Storage hoppers, silo and material conveyance equipment, a dryer and mixing drum/barrel that includes a large burner. These plants typically require a hot oil heater to maintain the liquid asphalt at correct temperature/viscosity. Plants may also include mixing and blending tanks.
- 2) How are these emissions controlled?
 - Emissions are controlled through a variety of means, typically including water or chemical dust suppressant to minimize dust during aggregate transfer, controlled combustion/low-NOx burners to minimize combustion emissions and a baghouse to remove particulate from the dryer/drum exhaust.

- 3) What about the engine?
- Plants are usually powered by electricity. As these sources are often portable and set up in undeveloped locations without access to utility power, they must provide their own electricity which is usually by portable generators powered by diesel engines. Diesel-fired engines are also sources of PM₁₀, as well as oxides of nitrogen (NO_x) and carbon monoxide (CO).
 - The EPA regulates exhaust emissions from these mobile nonroad engines. The EPA sets standards that limit the amount of pollution an engine can emit and sets sulfur standards for nonroad diesel fuels. EPA and engine manufacturers work together to design engines to meet the progressively stringent emission standards.
- 4) What does the DEQ Air Quality Bureau do to regulate these sources?
- Portable hot mix asphalt plants are required to register their equipment with the DEQ. The source must also notify DEQ at least 15 days before beginning to operate at any proposed new location.
 - Sources must be operated such that the facility does not exceed applicable limits (Batch Mix Plants - 324,000 tons as a rolling 12-month total, Drum Mix Plants – 996,000 tons as a rolling 12-month total).
 - Visible emissions from operating equipment shall not exceed 20% opacity averaged over 6 minutes.
 - Each dryer or mixer is required to use control equipment capable of achieving a PM emission standard of 0.04 grains per dry standard cubic feet (gr/dscf). This is typically a baghouse. To ensure the baghouse is operating correctly, the device must have a mechanism to measure pressure drop as well as inlet and outlet exhaust temperatures.
 - Initial performance tests for particulate matter and visible emissions must be conducted within 180 days of initial startup of the facility.
 - Dust from haul roads, access roads, parking lots and general plant areas must be treated with water or chemical dust suppressant to minimize emissions.
- 5) What can I do if I think the source isn't following the rules and emitting pollution over their limit?
- Call DEQ's Enforcement Staff at (406) 444-5328.