ENVIRONMENTAL FACILITIES CORPORATION

Sand & Gravel Operations

Does Your Facility Need a DEC Permit?

In order to determine if your facility requires a permit from the New York State Department of Environmental Conservation (DEC) and are subject to control requirements, you will need to identify when the equipment was installed and its processing capacity. This includes a review of all processing equipment including the crushers, grinding mills, screeners and sizing, conveying, bagging, storing (bins or piles) and loading (truck or rail) operations.

Keep in mind that your processing capacity is based on the **maximum** amount of material the equipment can process. Note: there is an exemption from DEC permitting for equipment installed prior to August 31, 1983 that utilizes water for purposes other than dust suppression. This does include processes such as wet conveying, separating and washing.

The following will need a permit from DEC:

- All processing equipment at sand and gravel mines or quarries that:
 - Are permanent or fixed installations with a maximum rated capacity of greater than 25 tons of minerals per hour; or
 - O Are mobile (portable) installations with a maximum rated capacity greater than 150 tons of minerals per hour.
- Mobile stone crushers with maximum rated capacities greater than 150 tons per hour which are located at non-metallic mineral (stone, aggregate) processing operations.

If you are not sure about the compliance status of your plant, give the SBEAP's hotline a call at **800-780-7227** so we can help evaluate your operations.

Dust Control Requirements

Any facility required to obtain an operating permit from DEC is also subject to particulate (dust) control requirements. The applicable regulation depends on when the equipment was installed. Equipment that exceeds the capacity rates listed above installed after August 31, 1983, is subject to Federal New Source Performance Standards (Subpart OOO). These standards limit the amount of visible emissions (opacity) from crushers (15% opacity limit), screens and conveyor transfer points (10% opacity limit) and any dust collector stack (7% opacity limit). Equipment subject to this subpart must conduct a Performance Test to verify the processes are in compliance with the opacity limits. EPA Test Method 9 is used to evaluate the visible emissions associated with the equipment. Facilities are also required to maintain production records for a period of two years. If a control device is used to control particulate emissions, the emission limit is 0.05 grains/dry standard cubic foot (DSCF). A stack test must be conducted and a report must be submitted to DEC that demonstrates compliance with this limit.

If the processes were installed prior to August 31, 1983, then DEC regulation Part 212, General Process Emission Sources applies. This regulation limits opacity from all operations to less than 20% opacity and also includes a particulate emission limit of 0.05 grains/DSCF for the exhaust from any control device.

Even if your operation is not subject to the New Source Performance Standards or Part 212, the control strategies to reduce particulate emissions should be used. By implementing a dust control program you can reduce chances of any complaints being lodged against your company and any nuisance violation notices being issued by DEC.

(over)

One final process to discuss is the use of stationary or portable combustion engines (diesel/gas) operated for on-site power generation. If you operate a generator with a rated capacity greater than 200 brake horsepower in the severe ozone non-attainment area (Long Island, NYC, Westchester, Rockland & Lower Orange Counties) or 400 brake horsepower outside the severe ozone non-attainment area, you will need an operating permit or registration from DEC. Depending on your location, the size and number of generating units, you may need to limit your fuel consumption in order to avoid being classified a major source (approximately 670 hp downstate & 2700 hp upstate).

Dust Control Measures

Aggregate production involves many processes and equipment. Crushed stone products are first loosened by drilling and blasting which are then transferred by front-end loaders into large haul trucks that transport the material to processing operations. Sand and gravel are typically mined from naturally occurring deposits/open pits and transported to processing equipment. The processing for both types of mining may include: crushing, grinding mills, screening, sizing, conveying, bagging, storing (bins or piles) and loading stations (truck or rail). What do all the operations have in common? Dust! Or at least the potential for dust emissions if the material is not handled and stored properly. The term most commonly used by regulators to describe these emissions is "fugitive dust". Fugitive dust means that the dust is not coming out of a stack, but rather directly from the process to the air such as from open conveyors/screens, storage piles or unpaved roads.

The following is a summary of control measures that can be implemented to reduce fugitive dust emissions:

Table 1: Dust Control Measures

Processes	Control Measures
Aggregate Storage Piles	periodic watering, covering or building an enclosure is required if the material is very dusty
Drilling	dust collector or water injection on drill
Plant roadways	watering or applying a dust suppressant on a routine basis; periodic sweeping or flushing any paved roadways to reduce drag out of dust from heavy equipment
Truck loading	telescopic loading
Conveyors & screens	water sprays or enclosures
Crushers & grinding mills	enclosures with exhaust system to capture fugitive dust, and vent to cyclones and bag houses to capture particulate emissions. Remember to store captured particulates (fines) properly in enclosed bins to prevent re-release into the air.

The SBEAP can help evaluate your operations, determine your compliance status and assist with any permitting or record keeping requirements. For free and confidential assistance, call SBEAP's toll-free hotline, 800-780-7227 within New York State, or 518-402-7462.

The information in this fact sheet is intended for general reference only; it is not a full and complete statement of the technical or legal requirements associated with the regulation.

Helping New York's Small Businesses understand and comply with environmental regulations

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