



## Michigan Department of Natural Resources and Environment - Air Quality Division

### ADDITIONAL TECHNICAL INFORMATION FOR RECYCLED ASPHALT SHINGLES (RAS) GRINDING

The following information will be used for the technical review of a permit to install application for a **recycled asphalt shingle (RAS) grinding operation**. This information is in addition to the general requirements outlined in the AQD document "Information for an Administratively Complete Permit to Install Application", Part 2 - Additional Supporting Information, Items A through F. All of the information may not be needed for each application. Also, this document may not be all inclusive. Additional information beyond that identified may be necessary to complete the technical review of any individual application. In the event a determination is made that new additional information is needed for a technical review, this document will be updated.

All referenced guidance documents are available at <http://www.deq.state.mi.us/aps> or you may contact the Permit Section at 517-373-7023.

**NOTE:** There are no exemptions from the requirement to obtain a Permit to Install pursuant to the State of Michigan, Department of Environmental Quality, Act 451 of 1994, Natural Resources and Environmental Protection Act and Air Pollution Control Rules, which apply to RAS grinding operations. A RAS grinder may be operated at multiple sites, however, separate permit applications must be submitted to evaluate the grinder at each site. If a grinder is permitted for use at multiple sites, the District(s) must be notified each time the grinder is moved between sites.

#### A. Process Description

##### 1. RAS Grinding Operation:

- a. A detailed process description including: material receiving, sampling, testing, recordkeeping, sorting, on-site transport and storage methods.
- b. The make, model, and horsepower rating of the grinder engine. Please provide a copy of the manufacturer's specification sheet if possible, including emission factors.
- c. Type of fuel the grinder engine burns and the maximum fuel consumption.
- d. Asbestos Management Plan - Asbestos testing must be conducted on a representative sample of shingles from a load, at a minimum of once per every 100 tons of material received on the site. Please provide assurance that the proposed process is designed to meet this requirement.

#### B. Regulatory Discussion

The following state air pollution control regulations may be applicable. Please review these regulations carefully to determine if they apply to your process and summarize the results in the application. The Air Pollution Control Rules may be viewed and downloaded from the AQD website at: [www.michigan.gov/deqair](http://www.michigan.gov/deqair).

1. State of Michigan, Department of Environmental Quality, Act 451 of 1994, Natural Resources and Environmental Protection Act, Part 55 Air Pollution Control and the following promulgated rules:
  - a) Rule 301 specifies a process or process equipment shall not discharge visible emissions of a density greater than the most stringent of a 6-minute average of 20% opacity, or a limit specified by an applicable federal NSPS or as a condition of a Permit to Install.
  - b) Rule 331 specifies a maximum allowable particulate emission rate for material handling equipment if no federal limit applies.

#### C. Control Technology Analysis

At a minimum, the grinder must have a water-spray to control fugitive emissions of particulates.

#### **D. Site Description and Process Equipment Location Drawings**

A site description and process equipment drawings including the following:

- a. A scaled plot plan of the site, including a scale and North indicators.
- b. All existing and proposed building locations and dimensions (width, length and height). Also include commercial, industrial and residential buildings within 1,000 feet of the equipment.
- c. Proposed placement of the grinding machine and material enclosures.
- d. Indicate whether drives, roads and lots are paved or unpaved.