

## Visible and Particulate Emission Limitations—UPDATE—DRAFT

March 4, 2013

### ORR Recommendation A-9

The Air Quality Division (AQD) should develop a Policy Guidance Document addressing the use of visible emissions limits of less than 20% opacity in permit conditions. The process for developing the document should include stakeholder input and require any opacity limits that are more stringent than what is allowed by R336.1301(1)(a) to be negotiated between the applicant and the AQD. The guidance document should be developed by June 1, 2012

### Update

This update is in relation to the discussions at the last two Air Advisory Council (AAC) meetings, held on January 16, 2013 and March 1, 2013, regarding the use of visible emission limits less than 20% as a condition in a Permit to Install (PTI).

After these meetings, a review of current guidance was done to determine if any changes are necessary based upon the discussion at the meeting. The guidance which is most relevant to the discussion of visible emission limits less than 20% is Operational Memorandum No. 14 (Op Memo 14). This Op Memo was reviewed, and it was determined that some updates were necessary. The most notable update to this memo is the removal of 5% opacity limits. Also removed from the memo were discussion points related to how opacity limits were to be rolled into initial ROPs. Since all initial ROPs have been issued, that portion of the guidance is no longer necessary. Other sections of Op Memo 14 have been reviewed and updated accordingly, and are now presented in a draft Policy and Procedure Guidance document under development by AQD staff.

### Background/Analysis:

Since Rule 336.1301 (Rule 301) applies to all sources, the Permit Section has historically included an opacity limit in virtually all permits. This opacity limit has served as a surrogate for, or as an indicator of compliance with, a particulate emission limit. There have also been instances where visible emission limits have been included when particulate emissions were not involved.

AQD experience has shown that there is an approximate relationship between opacity and particulate emissions. This relationship is outlined in Op Memo 14, and was provided in the initial discussion paper for this topic at the January 16, 2013 AAC meeting. Because of this relationship, opacity limits have been included as a surrogate for particulate emission limits, as stated above, but they are also included for sources where it is difficult to determine compliance with a mass emission limit. For example, fugitive sources such as storage piles, roadways, conveyors, roof monitors and crushers are source types where compliance with a mass emission limit would prove to be difficult. Therefore, an opacity limit would be used instead.

Additionally, there are situations where limiting the particulate emissions to less than 0.1 pounds per 1000 pounds of exhaust gases provide a benefit to a permit applicant. In these situations,

the potential to emit particulate matter (either PM, PM10 and/or PM2.5) is restricted; most likely to a level that would preclude the source from being regulated under the Prevention of Significant Deterioration (PSD) or Non-Attainment New Source Review (NANSR) regulations. It would also preclude the source from being required to perform dispersion modeling in order to demonstrate compliance with the applicable National Ambient Air Quality Standards (NAAQS). By limiting and accepting a particulate emission limit less than 0.10 pounds per 1000 pounds of exhaust gases, and an associated opacity limit of less than 20%, the level of complexity of the permit review is lessened. The opacity limit can be used as a compliance check for the particulate emission limit; thus lessening the need for stack testing. However, if a source requests particulate emission limitations less than 0.10 pounds per 1000 pounds of exhaust gases for their emission unit(s), but do not request the associated reduced opacity limit, but instead request an opacity limit of 20%, then stack testing to verify compliance with the emission limit will most likely be required unless the source can show that they will be in compliance with the particulate emission limit at the higher opacity.

#### Recommendation

The AQD has developed a policy and procedure document for staff to use in their evaluation of PTI applications with respect to Rule 301. This guidance document is under review prior to becoming finalized.