

	AIR QUALITY DIVISION POLICY AND PROCEDURE		DEPARTMENT OF ENVIRONMENTAL QUALITY
Original Effective Date: ORIGINAL DATE Revised Date: March 4, 2013 Reformatted Date: NA	Subject: Use of Visible Emission Limits Less than 20% Opacity in Permits to Install		Category: <input type="checkbox"/> Internal/Administrative <input checked="" type="checkbox"/> External/Non-Interpretive <input type="checkbox"/> External/Interpretive
	Program Name: Air Permits to Install		
	Number:	Page: of	

A Department of Environmental Quality (DEQ) Policy and Procedure cannot establish regulatory requirements for parties outside of the DEQ. This document provides direction to DEQ staff regarding the implementation of rules and laws administered by the DEQ. It is merely explanatory; does not affect the rights of, or procedures and practices available to, the public; and does not have the force and effect of law.

INTRODUCTION:

This policy and procedure discusses the use of visible emission limits less than 20% as a condition of a Permit to Install (PTI). It is the experience of the Air Quality Division (AQD) that the use of visible emission limits less than 20% as a condition in a PTI is appropriate in certain situations, such as when a source is proposing to limit its potential to emit of particulate matter (PM), particulate matter less than 10 microns (PM10), and/or fine particulate matter (PM2.5).

With the advent of the Renewable Operating Permit (ROP) program, the AQD developed Operational Memorandum (Op Memo) No. 14—Use Of Visible Emission Limits Less Than 20% Opacity in Permits. This memorandum was intended to outline how visible emission limits of less than 20% for non-particulate sources would be reviewed and rolled into initial ROPs as is, deleted, or modified to 20%. As all initial ROPs have now been issued, the ROP guidance is no longer necessary. Additionally, it also evaluated the use of visible emission limits of less than 20% opacity in New Source Review (NSR) permits for particulate sources.

Rule 301 applies to all sources. Therefore, the Permit Section has historically included an opacity limit on virtually all permits. In many cases, the opacity limit is included as a surrogate for, or as an indicator of compliance with, a particulate emission limit. However, in some cases visible emission limits have been included when particulate emissions are not involved.

AUTHORITY:

The authority to set an opacity limit that is more stringent than 20% is provided for in Rule 336.1301(1)(c). Additionally, Rule 336.1301(1)(a) states that “a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than... a 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.” Rule 301 also provides certain exceptions for lower opacity limitations.

AIR QUALITY DIVISION
POLICY AND PROCEDURE

Subject: Use of Visible Emission Limits Less than 20% Opacity in Permits to Install

Number:

Page of

POLICY:

This policy and procedure updates the parameters on which Op Memo No. 14 was developed. Namely, references in the Op Memo which refer to rolling existing PTIs into initial ROPs should be removed as it is no longer appropriate. All other parameters of the Op Memo were reviewed and have been updated accordingly and as presented below.

PROCEDURES:

The procedures presented below are broken down into two categories:

- 1) Processes that do not emit, or have limited potential to emit, particulate matter;
- 2) Processes that use visible emission limits as a surrogate to insure proper operation of the process equipment or air pollution control equipment.
 - Limit of 20% opacity
 - Opacity limit less than 20%

The procedures listed below will correlate to the two categories indicated above.

Processes that do not emit, or have limited potential to emit, particulate matter:

Responsibility	Action
Permit Engineer	<p>A general citation to Rule 336.1301(1)(a) which limits visible emissions to a maximum of 20% opacity will be included.</p> <p>NOTE: For processes that emit air contaminants that can form particulate matter (e.g. volatile organic compounds (VOCs) with low-volatility, high concentration nitric or sulfuric acids) will be treated as emitting particulate matter for the purpose of determining an appropriate visible emissions limit.</p>

Processes that emit, or have the potential to emit, particulate matter – Limit 20% Opacity:

Responsibility	Action
Permit Engineer	<p>A general citation to Rule 336.1301(1)(a) which limits visible emissions to a maximum of 20% opacity will be included for sources using visible emission limits as a surrogate to insure proper operation of the process equipment or air pollution control equipment.</p> <p>'The permit must also include a condition that directly relates to the proper operation. The following are examples that may be used:</p>

AIR QUALITY DIVISION
POLICY AND PROCEDURE

Subject: Use of Visible Emission Limits Less than 20% Opacity in Permits to Install

Number:

Page of

Responsibility	Action
	<ul style="list-style-type: none"> • A condition that requires that the process not be operated unless the control device is installed and operating properly; • A condition that specifies an operating parameter for the equipment that indicates that it is operating properly (e.g. a temperature, a pressure drop, or a flow rate). The condition must also specify appropriate monitoring and recordkeeping for the parameter. • A condition that requires a malfunction abatement plan for the equipment pursuant to Rule 336.1911. • A condition requiring testing to verify the emission limit for those sources with particulate emission limits less than 0.10#/1000#, unless an applicant can show or where AQD staff have sufficient information to determine that the source will comply with the required particulate limit at a higher opacity.

Processes Where Limits Less Than 20% Opacity Should Be Specified In Permits

Responsibility	Action
Permit Engineer	<p>A citation to the applicable federal new source performance standard (as specified in Rule 336.1301(1)(b)) which limits visible emissions to a maximum of a specific opacity will be included.</p> <p>A general citation to Rule 226.1301(1)(c) which limits visible emissions to the level specified in a condition of a PTI will be used for the following:</p> <ul style="list-style-type: none"> • any other applicable federal or state requirement specifying a maximum opacity (e.g., Section 5525(2)) • fugitive particulate emissions when it is not feasible to assign or determine compliance with a mass emission limitation. Examples include crushing operations, storage piles, etc. • situations where the applicant is requesting to limit the potential to emit of their particulate emissions for regulatory purposes (e.g., National Ambient Air Quality Standards, Prevention of Significant Deterioration applicability, etc.) by proposing and accepting a particulate emission limitation under 0.10#/1000#. The visible

AIR QUALITY DIVISION
POLICY AND PROCEDURE

Subject: Use of Visible Emission Limits Less than 20% Opacity in Permits to Install

Number:

Page of

Responsibility	Action										
	<p>emission rate associated with the particulate limit range shall be as follows:</p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Particulate Limit Range</th> <th style="text-align: center;">Visible Emission Limit</th> </tr> <tr> <th style="text-align: center;"><u>(in #/1000# of</u></th> <th style="text-align: center;"><u>(in grains/dscf)</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0.050 or less</td> <td style="text-align: center;">0.026 or less</td> </tr> <tr> <td style="text-align: center;">0.051 to 0.075</td> <td style="text-align: center;">0.027 to 0.039</td> </tr> <tr> <td style="text-align: center;">0.076 or greater</td> <td style="text-align: center;">0.040 or greater</td> </tr> </tbody> </table> <p style="margin-left: 40px;">Because the lower opacity limit provides a compliance check, particulate emission testing may not be required, or may not be required as frequently.</p>	Particulate Limit Range	Visible Emission Limit	<u>(in #/1000# of</u>	<u>(in grains/dscf)</u>	0.050 or less	0.026 or less	0.051 to 0.075	0.027 to 0.039	0.076 or greater	0.040 or greater
Particulate Limit Range	Visible Emission Limit										
<u>(in #/1000# of</u>	<u>(in grains/dscf)</u>										
0.050 or less	0.026 or less										
0.051 to 0.075	0.027 to 0.039										
0.076 or greater	0.040 or greater										

If questions arise as to whether a visible emission limit of less than 20% should be included as a condition of a permit to install, the permit engineer should discuss this with their peer reviewer, district staff, and/or their unit supervisor.

DIVISION CHIEF APPROVAL:

Vince Hellwig, Chief

AIR QUALITY DIVISION
POLICY AND PROCEDURE

Subject: Use of Visible Emission Limits Less than 20% Opacity in Permits to Install

Number:

Page of

**Appendix
Fugitive Dust Control Plan**

I. Site Roadways / Plant Yard

- A. The dust on the site roadways and the plant yard shall be controlled by applications of water, calcium chloride or other acceptable and approved fugitive dust control compounds. Applications of dust suppressants shall be done as often as necessary to meet all applicable emission limits. A record of all watering/dust suppressant applications shall be kept on file and be made available to the AQD upon request.
- B. All paved roadways and the plant yards shall be swept as needed between applications.
- C. Any material spillage on roads shall be cleaned up immediately.

II. Plant

The drop distance at each transfer point shall be reduced to the minimum the equipment can achieve. The transfer point from the re-circulating belt to the feed belt shall be equipped with an enclosed chute.

III. Storage Piles

- A. Stockpiling of all nonmetallic minerals shall be performed to minimize drop distance and control potential dust problems.
- B. Stockpiles shall be watered on an as needed basis in order to meet the opacity limit of 5 percent. Equipment to apply water or dust suppressant shall be available at the site or on call for use at the site within a given operating day. A record of all watering/dust suppressant applications shall be kept on file and be made available to the AQD upon request.

IV. Truck Traffic

On-site vehicles shall be loaded to prevent their contents from dropping, leaking, blowing or otherwise escaping. This shall be accomplished by loading so that no part of the load shall come in contact within 6 inches of the top of any side board, side panel or tailgate. Otherwise, the truck shall be tarped.

V. AQD/MDEQ Inspection

The provisions and procedures of this plan are subject to adjustment by written notification from the AQD if, following an inspection, the AQD finds the fugitive dust requirements and/or permitted emission limits are not being met.