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## Procedures on Visible Emissions AQCC Regulation No. 7 August 22, 2014

### Summary

On February 23, 2014 the Colorado Air Quality Control Commission adopted revisions to Regulation No. 7 that include a definition of visible emissions. That definition applies to combustion devices used to comply with the requirements of Regulation No. 7, Sections XII and XVII. Regulation No. 7, Section XVII.A.16 now defines visible emissions as follows:

“Observations of smoke for any period or periods of duration greater than or equal to one (1) minute in any fifteen (15) minute period during normal operation, pursuant to Method 22.”

In the Statement of Basis and Purpose, the Commission stated that this new definition does not relax the prohibition of visible emissions in Regulation No. 7, Sections XII and XVII, but clarifies how the Division and the regulated community will determine compliance with the no visible emissions standard. The definition of visible emissions and method to determine compliance with the standard became effective April 14, 2014.

This procedures document seeks to clarify the expectations for visible emissions evaluations as they pertain to combustion devices installed pursuant to the requirements of Regulation No. 7, Sections XII and XVII.

### Brief Description of Method 22

Test Methods are U.S. Environmental Protection Agency (EPA) approved procedures for measuring the presence and/or concentration of pollutants. Method 22 is a procedure to detect, among other aspects, smoke emissions from flares, and is codified in the Code of Federal Regulations, 40 C.F.R. § 60, Appendix A-7. Method 22 differs from other EPA Methods, such as Method 9, because it is qualitative, meaning it requires the observer to record the presence and duration of visible emissions, and does not require the observer to quantify the percent opacity of the emissions observed. A link to additional information on how to complete a Method 22 observation as well as the full Method is found at the conclusion of this document.

### When to Complete a Method 22

Pursuant to AQCC Regulation Number 7, Section XVII.B.2.b. and Section XII.C.1.d., combustion devices used to comply with the requirements of Section XVII and Section XII must have no “visible emissions” during normal operations. To assess compliance with this



standard, operators are required to conduct periodic<sup>1</sup> inspections of subject combustion devices for the presence or absence of smoke. If smoke is observed during the above-referenced inspections, operators have the option to either (1) immediately shut-in the equipment to investigate the cause of the smoke and conduct any necessary repairs, or (2) conduct a Method 22 observation to determine whether visible emissions are present.

### **Duration of Monitoring Period for Method 22 Observations**

When conducting Method 22 observations pursuant to Regulation No. 7, Sections XII and XVII, operators must monitor for up to 15 minutes in order to determine if there are visible emissions (observable smoke for at least one minute during that period). Pursuant to Method 22, the observation must be at least six minutes. However, the observation may stop after six minutes if one minute of smoke has been observed. While the monitoring period must be continuous, it is not necessary that the observed smoke be continuous for one minute. Accordingly, intermittent smoke with a cumulative duration of one minute or greater during the 15 minute observation period constitutes visible emissions.

### **Required Documentation**

Pursuant to Regulation No. 7, Section XII.E.4.a operators must document required inspections for the presence and absence of smoke. The Division has historically approved a “check box” to satisfy the documentation procedures referenced in Section XII. The Division will continue to accept the “check box” recordkeeping format in instances where no smoke is observed in order to demonstrate compliance with Regulation No. 7 Sections XII.E.4.a. Pursuant to Section XVII, operators are not required to document inspections where no smoke is observed.

As discussed above, where smoke is observed during the initial check required by either Section XII.E.4.a. or Section XVII.C.1.d., operators have the option to either (1) immediately shut-in the equipment to investigate the cause of the smoke and conduct any necessary repairs, or (2) conduct a Method 22 observation to determine whether visible emissions are present. In these instances, operators must maintain records detailing their investigation into the cause of the smoke including any necessary repairs performed, or alternatively the result of the Method 22 test. Operators must keep these records for a period of two years.

### **Application of the Visible Emissions Definitions for Sources with Existing Permits**

Sources that are currently subject to Method 22 observations should complete those observations consistent with the permit issued. The Division provides the following direction on permitting and application of the visible emissions definition:

1. For sources subject to individual Construction Permits that are required to follow an O&M Plan, or sources subject to Title V monitoring requirements, operators are encouraged to review existing O&M Plans and monitoring conditions in the Operating Permit to determine if another standard is applicable, and submit requests to the

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<sup>1</sup> Inspection requirements for combustion devices, including inspection frequency, are set forth in Section XII.E.4. and Section XVII.C.1.d.



Division to revise the Plan and/or conditions consistent with the visible emissions definition if appropriate.

2. Sources subject to Regulation No. 7 that are required to complete a Method 22 observation as a requirement of self-certification must complete a full 15 minute observation, consistent with the definition found at Regulation No. 7, Section XVII.A.16.

### **For More Information**

*Visible Emissions Field Manual, EPA Methods 9 and 22:*

<http://www.epa.gov/ttnemc01/methods/VEFieldManual.pdf>

EPA Method 22 Guidance Document:

<http://www.epa.gov/ttn/atw/6x/method22qa.pdf>

APCD Regulations:

<https://www.colorado.gov/cdphe/aqcc-regs>

Any questions regarding visible emissions for Regulation 7, Sections XII & XVII should be directed to Jennifer Mattox at (303)692-3144 or [jennifer.mattox@state.co.us](mailto:jennifer.mattox@state.co.us)

