



PS Memo 15-03

To: Stationary Sources Program, Local Agencies, and Regulated Community
From: Stefanie Rucker, Colorado Air Pollution Control Division
Date: September 23, 2015
Subject: Oil & Gas Air Pollution Control Equipment Requirements of Regulation Number 7, Section XVII

This document is intended to answer frequently asked questions concerning oil and gas industry storage tank emission management requirements. These requirements are from Colorado Air Quality Control Commission Regulation Number 7, Section XVII.

The information in this document does not address alternative emissions control requirements for equipment covered by Regulation Number 7, Section XII.

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1. CONTROL AND DESIGN EFFICIENCY

- 1.1. *Sources are required to control emissions under Section XVII with at least a 95% control efficiency but also to use a combustion device designed to have a destruction efficiency of 98%. Why does the Division distinguish between the two percentages?*

Sources are required to meet a 95% control efficiency. The Division requires that the combustion device used be designed to have a 98% destruction efficiency, because it recognizes that combustion devices designed to meet a 98% control efficiency may not actually meet this percentage in practice, given the variability of field conditions, downtime, etc.

- 1.2. *Should operators be using 95% or 98% for emission calculation and permitting purposes? In other words, are operators required to use 98%, or is 95% still appropriate to use for permitting?*

Operators should be using the 95% for emission calculation and permitting purposes. The Division's permitting unit may approve other emission control efficiencies, where requested and justified.

- 1.3. *How does the Division plan to confirm design efficiency?*

Operators are required to keep records of the manufacturer's specifications or equivalent for air pollution control equipment.

2. ALTERNATIVE EMISSIONS CONTROL REQUIREMENTS

- 2.1. *What alternative emissions control equipment is allowed under Section XVII.B.2.e.?*

The Division will consider, on a case by case basis, alternative emissions control equipment that achieves the most effective reduction of hydrocarbon emissions for the specific situation. The request should include sufficient technical documentation for the Division to make this determination.

If there are circumstances where an operator would need to utilize alternative emissions control equipment, they must get approval from the Division prior to use. The Division has authority to approve alternative emissions control equipment, which may be used in lieu of or in combination with air pollution control equipment (Regulation Number 7, Section XVII.B.2.e.).

- 2.2. *How should operators request to utilize alternative emissions control equipment?*

Operators should use the Division's request form, located on our website. This form should be submitted with a permit application prior to construction of the source and control equipment. Approval of the alternative emissions control equipment will be reflected in the permit.

In the case of a new E&P operation where the source is able to avail themselves of the 90 days provided in Regulation 3, Part A in applying for a permit, the source should



submit to the Division and receive approval for the request prior to construction of alternative controls or operation of alternative work practices.

Exception: A new E&P source may construct an open flare as alternative emissions control prior to official Division approval where the operation meets all of the considerations in Question 2.3, below. In these limited circumstances, the request should be submitted with the permit application no later than 90 days after the date of first production and approval, if granted, will be reflected in the permit. Please note that the source assumes all of the risk associated with the project, which could include necessary modifications to the equipment and site design among others.

2.3. *When will the Division consider approving open flares as alternative emissions control equipment for new, modified, or recompleted sites (i.e. equipment at a separator constructed after August 1, 2014)?*

In addition to case by case technical considerations, the Division will strongly consider approval of an open flare as alternative emissions control if:

- The open flare is not the primary destination for emissions; for example, the open flare is:
 - Controlling a separator installed on/after August 1, 2014 where the open flare is either used for backup or to control upset conditions, or is temporary (in use for less than 6 months); or
 - Controlling storage tanks where the primary control is provided by an enclosed combustion device or vapor recovery unit and the open flare is backup;
- The source has provided a request and technical justification to the Division;
- The open flare will be able to control 95% of hydrocarbon emission and have a manufacturer's design guarantee of 98% control for hydrocarbons; and
- The open flare will operate with no visible emissions, be equipped with an autoigniter (by the dates in the rule), and otherwise be able to comply with the requirements of Section XVII.B.

2.4. *What should operators do if a facility already has an open flare (i.e. prior to May 1, 2014)?*

If an operator has an open flare controlling equipment as required under Section XVII, the Division has approved these devices as alternative emissions control, where:

- the open flare was permitted prior to May 1, 2014;
- the operator has commenced operation of the E&P facility with an open flare prior to May 1, 2014 and has submitted a permit application to the Division in a timely manner, but has not yet received a permit; or
- the operator has commenced operation of a crude oil storage tank controlled by an open flare prior to May 1, 2014.



Even when utilizing an open flare as approved alternative emissions control equipment, sources are subject to the requirements to: employ an auto-igniter (per Section XVII.B.2.d.(ii)), operate with no visible emissions (per Section XVII.B.2.b.), have a manufacturer's design efficiency of at least 98%, and control hydrocarbon emissions with at least a 95% efficiency.

2.5. *What happens when an operator modifies an existing storage tank controlled by an open flare (i.e. an open flare allowed as it was installed and operated prior to May 1, 2014)?*

A modification to existing storage tanks utilizing open flares requires that the source must either: replace the open flare with an enclosed combustion device capable of meeting all of the requirements of Section XVII, or request and receive approval for continued use of the open flare as approved alternative emissions control equipment from the Division prior to the modification.

A storage tank will be considered modified if any of the following, without limitation, has occurred:

- New tanks have been installed at the site;
- An existing tank was replaced;
- A new well was drilled and connected to the battery (E&P site only);
- A well was re-piped (E&P site only);
- A significant change (e.g., replacement of a separator) in the physical components of the tank or the equipment related to the functioning of the tank has occurred; or
- An existing well was recompleted, refractured, or otherwise stimulated (see Regulation Number 7, Section XII.B.10).

The following are not considered modifications for this purpose:

- Removal of a well from a tank battery; or
- Addition of a control device.