

MEMO TO :

File

Oil and Gas Production Facility Operators and Interested Parties

FROM

James L. Semerad, Director

Division of Air Quality, Department of Environmental Quality

RE

Compliance Alert - Regulatory Requirements for 40 CFR Subpart

OOOOa Storage Vessel Affected Facilities at Crude Oil and

Natural Gas Facilities

DATE

:

October 10, 2023

Purpose

The purpose of this Compliance Alert is to communicate with owners and operators concerning design and capacity assessments required for certain storage vessel affected facilities at crude oil and natural gas facilities in North Dakota.

A review of 40 CFR Part 60 Subpart OOOOa annual reports required to be submitted for facilities that are subject to the requirements for storage vessel affected facilities has revealed widely varying levels of compliance with the design and capacity assessments for closed vent systems (CVS). These assessments are required by the regulation and are useful to determine if the CVS is properly sized to route volatile organic compounds (VOCs) from the storage vessel to a control device.

Background

40 CFR Part 60 Subpart OOOOa establishes various requirements for storage vessel affected facilities that commenced construction, reconstruction, or modification after September 18, 2015. According to §60.5395a, if a control device is used to reduce VOC emissions from a storage vessel affected facility (other than with a floating roof), a CVS that meets the requirements of §60.5411a(c) and (d) must be used to route emissions to a control device. §60.5411a(d)(1) and §60.5411a(d)(1)(i) requires that for a CVS used to route emissions to a control device:

§60.5411a(d)(1): You must conduct an assessment that the closed vent system is of sufficient design and capacity to ensure that all emissions from the affected facility are routed to the control device and that the control device is of sufficient design and capacity to accommodate all emissions from the affected facility, and have it certified by a qualified professional engineer or an in-house engineer with expertise on the design and operation of the closed vent system in accordance with paragraphs (d)(1)(i) and (ii) of this section.

§60.5411a(d)(1)(i): You must provide the following certification, signed and dated by a qualified professional engineer or an in-house engineer: "I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted, and this report was prepared pursuant to the requirements of subpart OOOOa of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete."

The CVS certification is required to be provided by the owner or operator in the annual report for storage tank affected facilities, per §60.5420a:

§60.5420a(b)(12): You must submit the certification signed by the qualified professional engineer or in house engineer according to §60.5411a(d) for each closed vent system routing to a control device or process.

Compliance Concerns and Observations

As of July 1, 2020, the Department is the implementing and enforcement agency for 40 CFR Part 60 Subpart OOOOa. Since assuming this role, the Department has been reviewing annual reports required for storage vessel affected facilities. The Department noted that many annual reports were missing the §60.5411a(d) CVS design and capacity assessment certification for storage vessel affected facilities, as noted in the annual reporting requirements of §60.5420a(b)(12). Further investigation by the Department revealed that much of the other CVS information (e.g. inspection information), was missing from the reports as well. A comparison of different storage vessel annual reports showed the reports were varied, but fall into three different categories:

- Annual report includes CVS information and certification
- Annual report includes CVS information but lacking proper certification
- Annual report includes no CVS information and no certification

Subsequent discussion with owners and operators of storage vessel affected facilities identified the following reasons why information for a CVS may have been missing from annual reports:

- Information was not included due to oversight by the owner or facility
- The CVS certification could not be found
- The fugitive emission reporting requirements of 40 CFR Part 60 Subpart OOOOa are sufficient for fulfilling the CVS reporting requirements
- The storage vessel affected facility is exempt from the CVS requirements

Summary

The Department is releasing this Compliance Alert to communicate with owners or operators of 40 CFR Part 60 Subpart OOOOa storage vessel affected facilities the requirements for a CVS. The annual Subpart OOOOa report for storage vessel affected facilities requires information for a CVS if the storage vessel is using a non-floating roof control device to comply with the VOC reduction requirements of §60.5395a(a)(2). This includes the CVS inspection information required to be reported by §60.5420a(b)(6)(vii)(A), as outlined in §60.5416a(c), and the CVS certification information required by to be reported by §60.5420a(b)(12), as outlined in §60.5411a(d)(1)(i).

The CVS inspection, while similar to the fugitive emissions monitoring surveys required under §60.5397a, has different requirements. The CVS inspection results should not be combined with the fugitive emissions monitoring survey results and should instead be reported in its own section of the annual report. If using EPA's Subpart OOOOa spreadsheet template, closed vent systems are reported under their own sheet.

If the current certification cannot be located, then a new assessment of the CVS would need to be conducted, and the assessment would need to be certified as required in §60.5411a(d)(1).

There are no design and capacity assessment exemptions if a CVS is used to route emissions to a control device from a 40 CFR Part 60 Subpart OOOOa storage vessel affected facility. Performance test exemptions and design analysis exemptions detailed in §60.5413a refer only to the control device itself, and do not apply to the CVS or its applicable requirements.

Please contact Russell Martin of my staff at rsmartin@nd.gov or (701)328-4639 with any questions or concerns.

Sincerely,

James L. Semerad

Director

Division of Air Quality

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