

United States Environmental Protection Agency, Region 9

Air Division

Technical Support Document

for

EPA's Notice of Rulemaking

for the

California State Implementation Plan

Santa Barbara County Air Pollution Control District's

Rule 361, Small Boilers, Steam Generators and Process Heaters

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Santa Barbara County Air Pollution Control District (SBCAPCD)

Submitted Rule

SBCAPCD Rule 361, Small Boilers, Steam Generators and Process Heaters:

- Adopted: January 17, 2008
- Submitted: July 18, 2008
- Completeness determination: August 22, 2008

Previous Rule Submittals

There are no outstanding submittals of Rule 361.

SIP-Approved Rule

There are no SIP-approved versions of Rule 361.

Rule Summary

Rule 361 regulates emissions of oxides of nitrogen (NO_x) and carbon monoxide (CO) from boilers, steam generators and process heaters with a rated heat input rate greater than 2 million BTU/hr and less than 5 million BTU/hr. The rule has a full compliance date of January 1, 2020.

Section B of the Rule specifies categories that are exempt from the rule.

Section C of Rule 361 includes definitions of relevant terms.

Section D sets the emission limits of the rule:

- NO_x: 30 ppm at 3% oxygen
- CO: 400 ppm at 3% oxygen.

These limits are not applicable to units with an annual heat input equal to or less than 1.8 billion Btu/year.

Section E describes the procedures to be followed when a unit loses its low-use exemption.

Section F specifies the requirements for compliance determination.

The recordkeeping requirements of Rule 361 are specified in Section G.

Section H specifies that all records must be submitted to the District by March 1 for the prior year except for source test reports which must be submitted within 45 days of completion.

Section indicates the necessary number of tune-ups per year.

The source testing requirements of rule 361 are in Section J.

The compliance schedule for Rule 361 is outlined in Section K.

The tuning procedures are included as an attachment to the rule. Procedure A is the tuning procedure for forced draft-fired equipment. Procedure B is the tuning procedure for natural draft-fire equipment. Both procedures require NO_x measurements if the unit being tuned is subject to the NO_x limit in the Rule.

Emissions Reductions

The District estimates a reduction of 0.0467 ton of NO_x/day in the year 2020 when the Rule is fully implemented.

Rule Evaluation

Generally, SIP rules must be enforceable (see section 110(a) of the Clean Air Act, hereafter CAA); must require Reasonably Available Control Technology (RACT) for major sources in nonattainment areas (see CAA §182(b)(2) and (f)); must not interfere with applicable requirements, including requirements concerning attainment (see CAA section 110(l)); and must not relax existing requirements in effect prior to enactment of the 1990 CAA amendments (see section 193). The SBCAPCD regulates an area that is classified as maintenance for the 1-hour ozone standard and is in attainment for all criteria pollutants, thus, submitted Rule 333 does not have to fulfill RACT requirements.

Guidance and policy documents that we used to define specific enforceability requirements include the following:

- *Issues Relating to VOC Regulation, Cutpoints, Deficiencies, and Deviations* (the "Blue Book"), US EPA, OAQPS (May 25, 1988).
- *Guidance Document for Correcting Common VOC and Other Rule Deficiencies*, EPA Region IX (August 21, 2001, the "Little Bluebook").
- *State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990*, 57 FR 13498 (April 16, 1992); 57 FR 18070 (April 28, 1992).
- *State Implementation Plans; Nitrogen Oxides Supplement to the General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990* (the "NO_x Supplement to the General Preamble"), US EPA, 57 FR 55620 (November 25, 1992).
- *State Implementation Plans (SIPs): Policy Regarding Excess Emissions During Malfunctions, Startup and Shutdown* from Steven A. Herman, Assistant Administrator for Enforcement and Compliance Assurance, and Robert Perciasepe, Assistant Administrator for Air and Radiation, September 9, 1999.

SBCAPCD Rule 361 meets some of the necessary requirements listed above. The Rule was not reviewed to determine its fulfillment of RACT thus we are not making a statement of its merit in this regard. It is a strengthening of the current SIP and will lead to a net decrease in NO_x emissions when the rule is implemented. The lack of a specific definition for the length of time of start-ups and shutdowns leads to an enforceability deficiency in the Rule. The lack of specificity of the required documentation of fuel

sulfur content also makes the Rule not adequately enforceable. These inadequacies are further discussed below.

Rule Deficiencies

1. Section F.3 defines the length of the startup and shutdown intervals as “not last[ing] longer than is necessary to reach stable temperatures and conditions”. This leads to enforceability concerns due to the lack of specificity of the duration of these periods. The duration of these periods should be further specified¹. An example of an adequate startup and shutdown provisions is San Joaquin Valley APCD Rule 4307, section 5.4.
2. Section G.4 states that documentation of fuel sulfur content must be kept as a record. The type of documentation required should be specified in the rule. An example of an adequate documentation for sulfur content is San Joaquin Valley APCD Rule 4307 which specifies:
 - a. Testing of the sulfur content of liquid fuel; or
 - b. Obtaining a copy of the fuel sulfur content specification data from the fuel manufacturer or vendor.

Suggested Rule Improvement

EPA recommends that the SBCAPCD make the following improvements in the next revision of Rule 361:

1. The emission limits in the Rule should be further strengthened; see for example San Joaquin Valley Unified APCD Rule 4307, section 5.1.

Recommendation

EPA staff recommends limited approval/disapproval without sanctions of SBCAPCD Submitted Rule 361 for incorporation into the California Applicable SIP.

Attachments

1. Submitted Rule 361
2. Staff Report

¹ “State Implementation Plans (SIPs): Policy Regarding Excess Emissions During Malfunctions, Startup and Shutdown” from Steven A. Herman, Assistant Administrator for Enforcement and Compliance Assurance, and Robert Perciasepe, Assistant Administrator for Air and Radiation, September 9, 1999.