MEMORANDUM OF NOTICE

Item Title: Regulation Number 7, Sections XVI. and XIX.

Meeting Date: April 19, 2018

GENERAL DESCRIPTION

On May 21, 2012, the Denver Metro/North Front Range ("DMNFR") area was designated as a Marginal nonattainment area for the 2008 8-hour Ozone National Ambient Air Quality Standard ("NAAQS"), effective July 20, 2012, with an attainment date of July 20, 2015 (77 Fed. Reg. 30088). On May 4, 2016, the U.S. Environmental Protection Agency ("EPA") published a final rule that determined that Colorado's Marginal ozone nonattainment area failed to attain the 2008 8-hour Ozone NAAQS and therefore reclassified the DMNFR area to Moderate, effective June 3, 2016, and required attainment of the NAAQS no later than July 20, 2018, based on 2015-2017 ozone season data.

Due to the reclassification, Colorado must submit revisions to its State Implementation Plan ("SIP") to address the Clean Air Act's ("CAA") Moderate nonattainment area requirements, as set forth in CAA § 182(b) and the final SIP Requirements Rule for the 2008 Ozone NAAQS (*See* 80 Fed. Reg. 12264 (March 6, 2015)). The SIP revision must include Reasonably Available Control Technology ("RACT") requirements for major sources of VOC and/or NOx (i.e. sources that emit or have the potential to emit 100 tons per year ("tpy") or more). Accordingly, the Regional Air Quality Council ("RAQC") and the Colorado Department of Public Health and Environment, Air Pollution Control Division ("Division") conducted a public process to develop SIP revisions and supporting revisions to Regulation Number 7.

In response to the reclassification, the Division requests that the Colorado Air Quality Control Commission ("Commission") consider proposed revisions to Regulation Number 7 to satisfy RACT SIP requirements for Moderate nonattainment areas by establishing categorical RACT requirements for major sources of VOC and/or NOx in the DMNFR. Specifically, the Division is proposing RACT requirements in Section XVI.D. for boilers, stationary combustion turbines, lightweight aggregate kilns, glass melting furnaces and compression ignition reciprocating internal combustion engines ("RICE") (collectively referred to as "stationary combustion equipment") located at major sources of NOx.

In addition, the Division may also make typographical, grammatical, and formatting corrections throughout Regulation 7.

The proposed revisions to Regulation Number 7 are SIP revisions.

WHAT IS IN THIS PACKAGE?

Attachments to this Memorandum provide details on the proposal as follows:

- Appendix A – Proposed Emission Limitations
- Proposed Regulatory Language;
- Statement of Basis, Specific Statutory Authority and Purpose; and
- Initial Economic Impact Analysis.

EXPLANATION OF THE PROPOSED RULE

A. Ozone reclassification

The Division is proposing Regulation Number 7 revisions to add RACT requirements for any existing stationary combustion equipment at major sources of NOx. The adoption of major VOC and NOx source RACT is a specific Moderate nonattainment area requirement.

1. Major source RACT

Pursuant to CAA Section 182(b), Colorado must provide RACT requirements in its SIP for major sources of VOC and/or NOx. The CAA does not define RACT. However, EPA has defined RACT as the "lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility." *57 Fed. Reg. 55620* (November 25, 1992). RACT can be adopted in the form of emissions limitations or work practice standards or other operation and maintenance requirements as appropriate.

Colorado has major sources of VOC and/or NOx in the ozone nonattainment area. While many of these sources are subject to regulatory RACT requirements included in Colorado's SIP, other sources or source emissions points are subject to individual RACT requirements established in federally enforceable permits as a minor source RACT requirement or inclusion of an applicable federal New Source Performance Standard ("NSPS") or National Emission Standard for Hazardous Air Pollutants ("NESHAP"). However, as a Moderate nonattainment area, Colorado must include in the SIP provisions to implement RACT for Colorado's major sources, and the Division proposes to do so on a categorical basis. Establishing RACT on a categorical basis is a distinctly different process from Colorado's minor source RACT permitting requirement found in Regulation 3, Part B, Section III.D.2. Minor source RACT permitting is specific to new or modified sources (i.e. sources that have already committed to a capital expenditure to construct or modify a process), and the designs of which can more easily accommodate changes prior to construction. Categorical RACT applies much more broadly to source category, including both existing sources/equipment and new/modified sources/equipment. This inclusion of existing equipment significantly impacts costs, as those sources are not already committed to a capital expenditure and any associated shut down to add controls. This ultimately impacts the decision on what controls are determined to be reasonably available, technologically and economically feasible for the source category as a whole. Thus, categorical RACT may in some cases be different from any RACT established for a specific source or piece of equipment under the minor source permitting RACT requirement.

In order to satisfy the Moderate RACT SIP requirement to establish categorical RACT for all major sources of VOC and/or NOx in the DMNFR, the Commission initially incorporated by reference several NSPS or NESHAP on November 17, 2016. These RACT requirements became effective on January 1, 2017.[1] However, during that rulemaking, the Commission determined that little, if any, additional controls could be implemented by certain major sources by the SIP submittal deadline of January 1, 2017. The Commission also determined that not all major sources or major source emission points were subject to existing regulatory RACT requirements in Regulation Number 7 or federally enforceable emission limits in Colorado's Regional Haze SIP.

For those sources that were not subject to other, existing regulatory RACT requirements, the Commission required owners or operators to submit a RACT analysis for the facility or specific emission points to the Division by December 31, 2017, to inform development of categorical RACT rules. In these RACT analyses, sources were required to identify potential options to reduce VOC and/or NOx emissions, depending on which pollutant(s) the source was major for, propose RACT, propose associated monitoring, propose a schedule for implementation, and include economic and technical

[1] The Commission previously adopted source specific RACT requirements by incorporating by reference certain NSPS and NESHAP for several source categories. These requirements were previously contained in Regulation 7, Section XIX.D.-G. While the substantive requirements of these provisions will not change during this rulemaking, the Section numbers will be changed to Sections XIX.A-D. Additionally, the turbine requirements that were previously contained in Regulation 7, Section XIX.C. have been moved to Section XVI.4.b.

information demonstrating why the proposal established RACT for the particular facility or emission point(s).

Based on the information provided in these RACT analyses as well as the Division's own in-depth review of rules adopted by Moderate nonattainment areas in other states and EPA guidance such as the RACT/BACT/LAER Clearinghouse, the Division proposes to adopt categorical RACT requirements in Section XVI.D. for stationary combustion equipment located at major sources of NOx in the DMNFR.

These proposed revisions may impact 26 facilities, represented by 17 companies.

a. Applicability

The requirements of Section XVI.D. only apply to sources in the DMNFR that were major for NOx as of June 3, 2016 (i.e. the effective date of the Moderate nonattainment reclassification). A complete list of sources known by the Commission to be major as of June 3, 2016 as well as a list of sources required to submit RACT analyses pursuant to what was Regulation 7, Section XIX.B. can be found in the Statement of Basis and Purpose included with this rule package.

b. Emission limitations and operational requirements

The Division is proposing new categorical, numeric emission limitations, which vary based on fuel type and the maximum design heat input of the stationary combustion equipment, where applicable. Affected stationary combustion equipment would be required to comply with the proposed emission limitations no later than 36 months after the effective date of this rule. This compliance period is necessary in order to allow affected sources sufficient time to complete any capital expenditures, install any necessary controls and/or monitoring equipment, and/or satisfy any permitting requirements necessary to comply with the applicable emission limitations. For certain categories of stationary combustion equipment, if the equipment's maximum design heat input is below the applicability threshold for the emission limitations, then the equipment is still required to comply with the combustion process adjustment requirements adopted by the Commission during the November 17, 2016 rulemaking. A complete list of the categorical emission limitations and operational requirements can be found in Appendix A included with this rulemaking package.

c. Exemptions

Due to the fact that it would be technologically and/or economically infeasible to require certain stationary combustion equipment to comply with the emission limitations in Section XVI.D., the Division is proposing several exemptions. Stationary combustion equipment that meets any of the exemptions in Section XVI.D.2. is not required to comply with the emission limitations in Section XVI.D.4., the compliance demonstration requirements in Section XVI.D.5., and the related recordkeeping and reporting requirements contained in Sections XVI.D.7.a-f and XVI.D.8. However, stationary combustion equipment that meets any exemption in Section XVI.D.2. is not exempt from the combustion process adjustment requirements in Section XVI.D.6. Similarly, if stationary combustion equipment is subject to the combustion process adjustment requirements in Section XVI.D.6., and it meets an exemption in Section XVI.D.2., then it is not exempt from the recordkeeping and reporting requirements for combustion equipment contained in Section XVI.D.7.g.

Once stationary combustion equipment no longer qualifies for any exemption, the owner or operator must comply with the applicable requirements of Section XVI.D. as expeditiously as practicable, but no later than 36 months after any exemption no longer applies. Additionally, once stationary combustion equipment that is not equipped with a continuous emission monitoring system ("CEMS") or a continuous emission rate monitoring system ("CERMS") no longer qualifies for any exemption, the owner or operator must conduct a performance test using EPA test methods within 180 days and notify the Division of the results and whether emission controls will be required to comply with the emission limitations of Section XVI.D.4.

The Division is proposing several exemptions including an exemption for limited use stationary combustion equipment (i.e. stationary combustion equipment with an annual capacity factor less than 20%). This exemption is necessary because when equipment operates on such a limited basis, the actual emissions from that equipment are significantly lower than their potential emissions, lowering the denominator in the cost per ton emissions reduced analysis. Thus, imposing additional control and monitoring requirements is not cost effective. The Division is also proposing an exemption for stationary combustion equipment with total uncontrolled actual emissions less than 5 tpy NOx for similar reasons. This is the threshold that was used to determine whether a facility was required to submit a RACT analysis during the November 17, 2016 rulemaking. Lastly, in order to avoid subjecting sources to conflicting or overlapping requirements, sources for which the Commission incorporated by reference a NSPS or NESHAP to establish source specific RACT during the November 17, 2016 rulemaking, will be exempt from the requirements of this rule and will continue to be subject to the RACT requirements established during that previous rulemaking.

d. Monitoring, recordkeeping and reporting requirements

The Division is proposing that affected stationary combustion equipment comply with certain monitoring, recordkeeping and reporting requirements no later than 36 months after the effective date of this rule. In order to provide clarity and regulatory certainty, many of the monitoring requirements proposed by the Division incorporate by reference existing federal requirements and are consistent with rules in Moderate nonattainment areas in other states. In particular, the CEMS and/or CERMS requirements in the proposed rule provide such consistency. While CEMS/CERMS is not an emission control, it is a tool that allows sources to more closely monitor emissions and adjust operations to minimize emissions.

MATERIALS CONTAINED IN THE PROPOSED RULE

The redline-strikeout version of the proposed revisions to Regulation Number 7 is attached.

PUBLIC MEETINGS

Over the past year, the Division and the RAQC have held numerous meetings with stakeholders and interested parties to discuss the reclassification of the DMNFR to a Moderate nonattainment area, and the resulting SIP revisions that are required as part of that effort.

The Division held two public meetings specifically concerning the proposed revisions to Regulation Number 7 prior to the Request for Public Hearing before the Commission. Stakeholder input from industry, consultants, government agencies, environmental groups and EPA representatives was sought during this process.

The Division will meet with Division staff as necessary to educate them on this proposals' impact and effect of these rule revisions.

BACKGROUND ON THE DEVELOPMENT OF THE RULEMAKING PROPOSAL

<u>What is the problem?</u>

Colorado did not attain the 2008 ozone NAAQS by July 20, 2015, and was reclassified as a Moderate nonattainment area. Therefore, Section 182(b) of the CAA requires Colorado to submit a SIP revision addressing the CAA's Moderate nonattainment area requirements, which include establishing categorical RACT requirements for major sources of VOC and/or NOx.

How does this proposed rule help solve the problem?

The proposed revisions include RACT requirements in the SIP for major sources of VOC and/or NOx in the DMNFR as required by Section 182(b) of the CAA.

How was the rule developed?

The proposal was developed by reviewing other Moderate nonattainment area RACT rules for similar source categories, reviewing the RACT/BACT/LAER Clearinghouse, and reviewing the submitted RACT analyses from major sources of VOC and/or NOx in the DMNFR. Stakeholder input from representatives from industry, consultants, local government agencies, environmental groups, and EPA representatives informed this proposal.

What is the fiscal and economic impact of the proposed rule?

The fiscal and economic impacts of the proposed rule are further detailed in the Initial Economic Impact Analysis.

How does the rule compare to federal requirements or adjacent state requirements?

Federal requirements:

The CAA does not expressly require the regulations being proposed by the Division. Rather, federal law establishes the 8-hour ozone NAAQS and requires the State to develop a SIP adequate to attain the NAAQS. One such requirement for Moderate nonattainment areas is that categorical RACT requirements be established for all major sources of VOC and/or NOx. The Division proposes to adopt revisions to Regulation Number 7 to attain the current 8-hour ozone NAAQS and to satisfy Colorado's Moderate nonattainment area RACT obligations.

Other State (Arizona, New Mexico, Utah) requirements:

Parts of Arizona were designated as marginal nonattainment for the 2008 ozone NAAQS and the state has an ozone nonattainment area and ozone SIP, which includes, among other things, requirements for stationary sources. Marginal nonattainment areas are not subject to a Moderate nonattainment area RACT requirement. However, Arizona's ozone nonattainment area was recently reclassified as Moderate nonattainment for the 2008 ozone NAAQS. Maricopa County, Arizona has adopted RACT requirements for boilers, turbines and engines, as of November 2, 2016. Arizona does not have any glass melting furnaces or kilns in the state and therefore did not adopt RACT requirements for these equipment types.

Parts of New Mexico were designated as marginal nonattainment for the 1997 1-hour ozone NAAQS and the state has an ozone maintenance area and ozone SIP, which includes, among other things, requirements for stationary sources. Marginal nonattainment areas are not required to conduct a Moderate nonattainment area level RACT analysis.

Parts of Utah were designated as Moderate nonattainment for the 1997 1-hour ozone NAAQS and the state has an ozone maintenance area and ozone SIP, which includes, among other things, requirements for stationary sources. These stationary source requirements include source-specific RACT for seven existing major sources.

In addition, the Division conducted an extensive review of rules from nonattainment areas in the following states: Arizona, California, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Texas, Vermont, Virginia and Wisconsin. Although most of these states adopted RACT requirements on a categorical basis (as the Division is proposing), these requirements vary significantly from

state to state because they are based on the unique source mix within each state. Whether source-specific or categorical, RACT requirements must be technologically and economically feasible considering each state's unique source mix.

How will the rule be implemented?

The amended rules will be published on the Commission's website, and emailed to subscribers to the Division's General Air Division Updates email list. Division staff will be informed of the revisions to ensure the changes will be reflected in applicable permitting and regulatory actions.

Are there time constraints?

Colorado must act quickly. The deadline for this SIP submittal was January 1, 2017. However, as discussed above, during the November 17, 2016 rulemaking, the Commission determined that little, if any, additional controls could be implemented by certain major sources by January 1, 2017. Because the SIP submittal deadline has passed, and in order for the proposed SIP revision to undergo the mandatory legislative review in the 2019 Colorado legislative session, the Commission is requested to act in 2018 to establish categorical RACT for stationary combustion equipment and ensure that Colorado's SIP contains all of the necessary Moderate nonattainment area requirements listed in CAA § 182(b). The Division intends to propose additional revisions in the second half of 2018 to establish RACT for major source breweries and brewery-related operations in Regulation 7. All RACT requirements must be submitted for legislative approval in the 2018 legislative session.

What if the Air Quality Control Commission does not adopt the proposed rule?

If the Commission declines to adopt the proposal, Colorado will be unable to submit a portion of its 2008 ozone NAAQS attainment demonstration. This could potentially trigger a Federal Implementation Plan clock and sanctions on highway funding.

Range of Regulatory Alternatives

The Commission could choose to adopt the proposal in full, adopt only certain elements of the proposal, adopt different elements, or not adopt the proposal at all. However, Colorado must submit supported RACT control measures to EPA addressing major sources of VOCs and/or NOx in the nonattainment area related to the reclassification of Colorado's ozone nonattainment area under the 2008 ozone NAAQS. The proposed categorical RACT rules directly relate to the SIP revisions resulting from the reclassification to Moderate nonattainment.

Contact for more information:

Please contact Dena Wojtach, with the Air Pollution Control Division at 303-692-3147 or at dena.wojtach@state.co.us with any questions.