

Increase Applicability of RACT Requirements

Description of the issue

This strategy to reduce ambient ozone levels within the non-attainment area (NAA) considers changes that can be made to Regulation 7 and Regulation 3 to incorporate Reasonably Available Control Technology (RACT) requirements for minor sources and/or certain source categories. The Colorado Air Pollution Control Division (APCD), Stationary Source Program (SSP) is assessing certain source categories to determine if this strategy will yield quantifiable emission reductions while decreasing ambiguity of rule requirements. Several source categories within the oil and gas industry have risen to the top during the inventory analysis including: reciprocating internal combustion engines (RICE), dehydrators, condensate tanks, pneumatic devices, as well as other general operations that may be well suited for application of RACT. RACT is determined by the APCD through a combination of standards set forth in Regulation 7 (Control Technique Guidelines) and case-by-case determinations made under Regulation 3 and/or under Regulation 7.

Additionally, the APCD is proposing to make RACT consistent between Regulation 3 and Regulation 7 to address the potential conflict between the regulations on when RACT is triggered. Regulation 3 triggers RACT at permit levels for new and modified sources, whereas Regulation 7 triggers RACT by source category or at 100 tpy (Section II.c.1.a(1)). This could be accomplished by striking Regulation 7 language regarding RACT and instead relying upon existing Regulation 3 language or by making Regulation 7 language consistent with Regulation 3 language.

General concepts associated with RACT proposal:

1. The regulation should be modified to establish that the APCD will require RACT for all new and modified oil and gas sources.
2. Use the Wyoming Best Available Technology (BAT) determinations as a starting point to reduce resource impacts on the APCD to get the program moving. Over time the APCD should re-evaluate RACT determinations to ensure the requirement keeps up with current control technology. The goal would be to periodically review each technology and update as needed. All RACT policies would be available on the Web to promote consistency.
3. The RACT determinations should be identified by compiling and maintaining a list in a guidance document rather than in regulation so that they can be modified more easily to keep with current technology.
4. The APCD should consider developing general permits for certain source categories that would include the relevant RACT determination to streamline the permitting process.
5. RACT applies to new and modified sources. The APCD may still need to address existing sources to get ahead of the ozone problem.

RACT for specific source categories may include the following:

Condensate tanks: 98% control from combustion devices (see “Condensate Tanks” Issue paper for further details)

Dehydrators: 98% control from combustion devices

Pneumatics: no bleed required (see “Pneumatic Valves” Issue paper for further details)

RICE: NSCR for rich burn and Oxidation Catalyst for lean burn

Air Quality, Health And Welfare Benefit

While health benefits are not quantified here, it is understood that reducing direct emissions of VOCs will reduce ozone and some air toxics. This will reduce the incidence of human health impacts caused by ozone, such as pulmonary, cardiovascular, respiratory, and nervous system disease. Because ozone damages crops, forests, and other natural plant life, all would benefit if emissions are reduced. This strategy may also reduce emissions of methane, which contributes to climate change.

Program Costs

The APCD may consider applying a standardized \$/ton (of pollutant reduced) threshold in a guidance document to determine application of the RACT standard, where technically feasible.

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Costs associated with requiring controls for source categories and/or individual facilities have not yet been determined. However, this option would be similar to the program in Wyoming, where there is BAT currently in place.

Implementation and Administration

This strategy has the potential to significantly increase the number of regulated sources, and has reporting, permitting, and/or compliance assurance impacts to the APCD.