

County Rule 241 RACT & BACT

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WALK MORE USE CFLS MORE CARPOOL MORE
BIKE MORE RAKE MORE TELECOMMUTE
MORE DRIVE HYBRIDS MORE CONSOLIDATE
ERRANDS MORE RIDE PUBLIC TRANSPORTATION
MORE USE ENERGY EFFICIENT APPLIANCES
MORE CARRY REUSABLE TOTE BAGS MORE
CONSIDER SOLAR MORE RUN COLD WATER
CYCLES MORE USE REUSABLE CONTAINERS
MORE CONSERVE ELECTRICITY MORE REDUCE
WOODBURNING MORE RECYCLE MORE USE
ELECTRIC LAWN AND GARDEN EQUIPMENT
MORE REFUEL AFTER DARK MORE RIDE
THE BUS MORE RIDE THE LIGHT RAIL MORE
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Rule 241 RACT & BACT: Outline

- Rule Purpose and applicability
- What is RACT?
- What is BACT?
- Applicability determination, emissions increase
- Top-down analytic approach
- Recent clarifications to BACT



Rule 241 Purpose & Applicability

- Purpose: To provide control technology requirements for new sources and modifications to existing sources of air pollution requiring permits or permit revisions.
- Applicability: The provisions of this rule shall not apply to new major sources and major modifications to existing major sources subject to the requirements of Rule 240 of these rules.



RACT & BACT

What is RACT?

Rule 100 defines Reasonably Available Control Technology:

For facilities subject to Regulation III-Control Of Air Contaminants of these rules, the emissions limitation of the existing source performance standard. For facilities not subject to Regulation III-Control Of Air Contaminants of these rules, the lowest emission limitation that a particular source is capable of achieving by the application of control technology that is reasonably available considering technological and economic feasibility. Such technology may previously have been applied to a similar, but not necessarily identical, source category. RACT for a particular facility, other than a facility subject to Regulation III-Control Of Air Contaminants of these rules, is determined on a case-by-case basis, considering the technological feasibility and cost-effectiveness of the application of the control technology to the source category.

What is RACT?

Rule 100 defines Reasonably Available Control Technology:

- For facilities subject to Regulation III – the emissions limitation of the existing source performance standard
- For facilities not subject to Regulation III - the lowest emission limitation that a particular source is capable of achieving by the application of control technology that is reasonably available considering technological and economic feasibility
- Such technology may have been applied to a similar, but not necessarily identical, source category
- RACT for a particular facility, other than those covered by Regulation III, is determined on a case-by-case basis, considering technological feasibility and cost-effectiveness



What is BACT?

Rule 100 defines Best Available Control Technology:

An emissions limitation, based on the maximum degree of reduction for each pollutant, subject to regulation under the Act, which would be emitted from any proposed stationary source or modification, which the Control Officer, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combination techniques for control of such pollutant. Under no circumstances shall BACT be determined to be less stringent than the emission control required by an applicable provision of these rules or of any State or Federal laws ("Federal laws" include the EPA approved State Implementation Plan (SIP)). If the Control Officer determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.



What is BACT?

Rule 100 defines Best Available Control Technology:

- An emissions limitation, based on the maximum degree of reduction for each pollutant, subject to regulation under the Act,
- On a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs... is determined by the control officer (regulatory authority) to be achievable
- Top-down analysis is an effective means of identifying BACT because it requires examination of the most stringent options first



Rule 241 – Determining Applicability

- Must be a new or modified source
- RACT applies for any emissions increase, irrespective of magnitude (i.e., any increase up to the BACT thresholds)
- BACT applies if an emission increase reaches or exceeds the thresholds given in the rule
- Emissions increase = future emissions - past emissions, or emissions after the change – emissions prior to the change



Top-down BACT Approach

- The same core criteria apply to any BACT analysis: the applicant must consider all available alternatives and demonstrate why each option should not be adopted.
- What is different about the top-down approach is the emphasis upon considering the most stringent control options first. For this reason, the top-down approach is recognized as an effective framework for determining BACT.



Recent BACT Changes & Clarifications (1 of 5)

The test for determining an emissions increase: The enactment of Arizona HB 2260 amended the definition of “Modification” to specify that an increase in emissions is to be calculated using a "potential to potential" test. This is a change from the previous calculation which used a potential to past actual test. (see A.R.S. 49-401.01)

Recent BACT Changes & Clarifications (2 of 5)

Revisiting BACT determinations

- If a BACT determination was made MCAQD will only revisit if the original determination contained material mistake(s) and/or relied upon inaccurate statements.
- If BACT was triggered in the past, but not evaluated or applied, the MCAQD will continue to review permits for BACT compliance on a case-by-case basis. All of the cases of this type that the MCAQD has examined have been past situations in which the source triggered BACT upon original operation without any indication that Rule 241 BACT was addressed at all.

Recent BACT Changes & Clarifications (3 of 5)

Circumvention – The prohibition on circumvention is established in Rule 241 Section 303 and the MCAQD does not anticipate relaxing this provision. Any such relaxation would significantly diminish the utility of the rule.

Recent BACT Changes & Clarifications (4 of 5)

BACT meaning under Rule 241 – Maricopa County Rule 100 gives one definition of BACT, therefore it carries the same regulatory meaning under County Rule 241 as under Rule 240. The MCAQD recognizes the interest in identifying BACT as efficiently as possible for any given operation, and therefore may consider an abbreviated top-down analysis.

Recent BACT Changes & Clarifications (5 of 5)

Source Obligation – Under County rules a source can accept an enforceable emission limit to avoid an otherwise applicable requirement (such as BACT). Consequently, if the source seeks to relax that limit in the future, and exceeds the applicable threshold, it is obligated to apply BACT.

In Summary

- Rule 241 is Maricopa County's minor new source review rule
- RACT is required as a floor
- 300-series county rules are RACT for respective processes and industries
- If BACT is triggered, top-down analysis is the preferred approach



Questions?

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Air Quality Department

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