

 VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT	ENGINEERING DIVISION Policies and Procedures
Issued: 11/10/09	Subject: BACT Implementation Permitting Policy
Revised: 12/07/23	

Introduction

Best Available Control Technology (BACT) is defined in Rule 26.1, “New Source Review – Definitions”, and is required for all new, replacement, modified, or relocated emissions units pursuant to Section A of Rule 26.2, “New Source Review – Requirements.” Rule 26.2.A has a zero threshold for BACT for ROC, NO_x, PM-10, and SO_x, however, there is no BACT requirement for CO. It is important to note that Ventura County is one of the few air pollution control agencies in the nation that has a zero threshold for BACT.

The purpose of this memo is to provide guidance to District staff, permit applicants, and the public on the implementation of this definition and to also document the District’s procedures for defining various terms in the BACT definition that are not otherwise defined in District rules.

BACT is defined in Rule 26.1.3 as follows:

"Best Available Control Technology (BACT)": The most stringent emission limitation or control technology for an emissions unit which:

- a. Has been achieved in practice for such emissions unit category, or*
- b. Is contained in any implementation plan approved by the Environmental Protection Agency for such emissions unit category. A specific limitation or control shall not apply if the owner or operator of such emissions unit demonstrates to the satisfaction of the Air Pollution Control Officer (APCO) that such limitation or control technology is not presently achievable, or*
- c. Is contained in any applicable New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants set forth in 40 CFR Parts 60 and 61, or*
- d. Any other emission limitation or control technology, including, but not limited to, replacement of such emissions unit with a lower emitting emissions unit, application of control equipment or process modifications, determined by the APCO to be technologically feasible for such emissions unit and cost effective as compared to the BACT cost effectiveness threshold adopted by the Ventura County Air Pollution Control Board.*

In defining emissions unit categories, the APCO may take into account the function of the emissions unit, the capacity of the emissions unit, the annual throughput of the emissions unit and the location of the emissions unit with respect to electricity or fuels needed to achieve an emission limitation or control technology.

It is important to note that the Ventura County APCD definition of BACT is more like the federal definition of LAER (Lowest Achievable Emission Rate) in that cost-effectiveness is not a consideration under Rule 26.1.3.a, b, or, c. By its construction, a cost-effectiveness analysis is only used under Rule 26.1.3.d for proposed BACT limits that are more stringent than BACT determined under Rule 26.1.3.a, b, or, c. Note that Rule 26 BACT requirements apply equally to both federal major source permitting and “local” minor source permitting. EPA guidelines do not allow for routine consideration of the cost of control in LAER determinations. The EPA guidelines are more concerned that the control costs may be “prohibitive” such that the new source could not be built or operated with the control technology. The definition of BACT and LAER in state law (Health & Safety Code Section 40405) has no explicit reference to cost considerations.

Policy Statements

The determination of BACT is performed on a case by case basis for each Authority to Construct application and for each pollutant subject to BACT. Practically speaking, for most applications BACT is determined under Rule 26.1.3.a or Rule 26.1.3.d as they are generally more stringent than BACT determined under Rule 26.1.3.b or Rule 26.1.3.c.

BACT can be required in a variety of forms, including but not limited to, a concentration limit, mass limit, reduction or destruction efficiency requirement, control equipment requirement, fuel requirement, raw material limit, work practice standard, etc. For many cases, BACT may be considered to be compliance with an applicable Ventura County APCD rule.

Rule 26.1.3.a - “Achieved in Practice BACT”

When determining “achieved in practice” BACT under Rule 26.1.3.a, the BACT manuals and rule books of the South Coast AQMD, San Joaquin Valley APCD, and / or Bay Area AQMD should be reviewed, at a minimum, as applicable. Experienced readers may note that both the emission limitations and emission unit categories may differ amongst these air districts. Note that an air district rule that is not yet approved in the SIP may be required as BACT if it is more stringent than BACT determined under Rule 26.1.3.b. In addition to BACT manuals, rules, and existing Ventura County APCD permits, achieved in practice BACT may be determined from other Part 70 (Title V) permits, state or local permits, trade journals, newsletters, etc. The EPA and California BACT/LAER Clearinghouses may also be used, however, they are generally not the “most stringent”. For most surface coating operations (i.e. motor vehicle coating operations subject to Rule 74.18) BACT should be compliance with the Ventura County APCD rule unless another air district rule or BACT determination is significantly more stringent than the Ventura County APCD rule. When reviewing the requirements of other air districts, it is important to note permitting thresholds such that an emission unit requiring a permit in Ventura County may be exempt in another air district and that BACT should be determined accordingly.

Just as important as BACT determined above is the concept of “achieved in practice in Ventura County.” Where BACT has been determined for a particular emission unit category or type of facility, this BACT determination should be extended to the same or similar emission unit categories. This is particularly true because of the zero BACT threshold in Ventura County Rule 26.2.A. BACT for some emission units and pollutants may be triggered in Ventura County when it is not triggered in other air districts and does not appear in other district BACT manuals. For

most surface coating operations (i.e. motor vehicle coating operations subject to Rule 74.18) BACT should be compliance with the Ventura County APCD rule unless another air district rule or BACT determination is significantly more stringent than the Ventura County APCD rule. When reviewing the requirements of other air districts, it is important to note permitting thresholds such that an emission unit requiring a permit in Ventura County may be exempt in another air district and that BACT should be determined accordingly.

The concept of “technology transfer” shall be used when determining “achieved in practice” BACT for an emissions unit category. As noted in the attached EPA Memorandum of August 29, 1988 entitled “Transfer of Technology in Determining Lowest Achievable Emission Rate”, when considering gas stream controls what matters is the gas stream composition and not the source of the emissions. For example, landfill gas is very similar to sewage digester gas in composition (methane, carbon monoxide and sulfur) and the sulfur control technologies are identical. In addition, the emission unit combusting the gas is immaterial. The same sulfur controls would be used for a landfill gas flare, engine, heater, boiler, etc.

In addition to the above, “achieved in practice” BACT may consider the very important concept of “new technology”. This concept, as practiced when determining BACT, is described in the South Coast AQMD Guidelines and allows for emissions control technologies to be considered as “achieved in practice” even if they have evolved without a regulatory requirement. This concept has allowed many BACT emission limitations and control technologies to evolve to their current levels. For a new technology to be considered to be “achieved in practice” it generally needs to be commercially available, in operation, reliable, verified, and effective over the proposed range of operations.

Rule 26.1.3.b – “Contained in any Approved Implementation Plan”

This section is self explanatory. It is important to note that only rules and regulations approved by EPA in a SIP are included in this subsection. However, a limitation included in a rule or regulation not yet approved in a SIP may be required as BACT under Rule 26.1.3.a.

Rule 26.1.3.c – “Contained in any NSPS or NESHAP”

This section is self explanatory.

Rule 26.1.3.d – “Technologically Feasible and Cost-Effective”

This portion of the BACT definition, by construction, only applies to a BACT determination that is proposed to be more stringent than “achieved in practice” BACT determined under Rule 26.1.3.a. It also means that cost-effectiveness is not a consideration if a BACT determination is achieved in practice. The definition also allows the District to require the replacement of a proposed emission unit with a lower emitting emission unit. For example, a new oil well and associated pumping unit may be proposed to be powered with a natural gas engine. However, the District currently requires that new oil well pumping units be powered with electric motors in lieu of engines.

For implementing the BACT definition of Rule 26.1.3.d, the cost-effectiveness thresholds and procedures detailed in the attached VCAPCD Board letter dated November 12, 2019 shall be

used. For ROC and NOx, the thresholds are \$15.00 per pound reduced, which is equivalent to \$30,000 per ton reduced. For PM and SOx, the thresholds are \$5.00 per pound reduced, which is equivalent to \$10,000 per ton reduced. Note that the PM and SOx BACT cost effectiveness thresholds were not revised with the VCAPCD November 12, 2019 Board letter and are based on the attached VCAPCD December 20, 1988 Board letter.¹

Signed:



Ali R. Ghasemi
Air Pollution Control Officer

Attachments:

1988 EPA Memorandum
1988 BACT Cost Effectiveness
2019 BACT Cost Effectiveness

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¹ BACT Cost Effectiveness Values revised 12/07/23 to reflect VCAPCD November 12, 2019 Board letter “Amend Policy Regarding “BACT Cost Effectiveness Procedures and Screening Levels for Costs” to Update the Cost Screening Levels for ROC and NOx, and to Find That Adoption of the Proposed Values are Exempt From CEQA”