

Procedure: New or Updated BACT Determinations

Introduction This procedure identifies the main participants and the procedures for making a BACT determination and updating the BACT/TBACT Workbook.

Participants There are three participants involved in conducting a BACT determination, as shown in the table below:

Participant	Duties and Responsibilities
Permit Engineer	<ul style="list-style-type: none"> • Determines whether a source triggers a BACT review. • Performs BACT analysis.
BACT Coordinator	<ul style="list-style-type: none"> • Provides guidance to Permit Engineer to ensure BACT determination is conducted in accordance with procedure, • Tracks all new BACT determinations and BACT update proposals (to ensure that they are performed consistently), and • Updates the BACT/TBACT Workbook in a timely manner.
Primary Technical Contact	<ul style="list-style-type: none"> • Becomes familiar with the current BACT for technical/regulatory area assignments (by reviewing sources of BACT information periodically), • Forms a workgroup, when needed, to assist in reviewing and identifying BACT technology, depending on the complexity of the source category, and • Provides guidance/assistance to Permit Engineer in conducting a BACT determination that falls within assigned area of expertise.

Procedure for Conducting a BACT Determination The following are the steps involved in conducting a BACT determination:

Step	Action
1	Permit Engineer determines that a new or updated BACT determination is required, per Regulation 2-2-301.

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Procedure: New or Updated BACT Determinations, Continued

**Procedure for
Conducting a
BACT
Determination
(continued)**

Step	Action
2	<p>Permit Engineer does BACT determination. This step can be handled in one of two ways:</p> <ul style="list-style-type: none"> • Permit Engineer does BACT determination himself/herself. [The Permit Engineer should notify the BACT Coordinator and Primary Contact immediately to reduce redundancy of effort and to ensure consistency in performing the BACT analysis.] -OR- • Permit Engineer asks for help from Primary Contact and BACT Coordinator. However, the Permit Engineer is still ultimately responsible for completing the BACT determination. [If the Permit Engineer needs more assistance than provided by either the BACT Coordinator or Primary Contact, the Permit Engineer shall notify his/her supervisor to mediate all workload conflicts.]
3	<p>Permit Engineer/Primary Contact reviews, contacts, and/or researches the following potential sources of BACT Information:</p> <ul style="list-style-type: none"> • Bay Area Air Quality Management District BACT/TBACT Guidelines { http://www.baaqmd.gov/pmt/bactworkbook/default.htm } • CAPCOA/CARB BACT Clearinghouse { http://www.arb.ca.gov/bact/bact.htm } • EPA BACT/LAER Clearinghouse { http://cfpub1.epa.gov/rblc/htm/b102.cfm } • South Coast AQMD BACT Guidelines { http://www.aqmd.gov/bact/index.html } • San Joaquin Valley APCD BACT Clearinghouse { http://www.valleyair.org/busind/pto/bact/bactchidx.htm } • Determinations made by other air districts, which have been published, and/or independently verified equipment performance and operating data. • BACT experts at BAAQMD, US EPA, CARB, SCAQMD, etc. • Research using the Internet and/or the District's Library Specialist. • Equipment manufacturers and equipment vendors. <p>[See Block entitled, Additional Considerations in Reviewing BACT Information.]</p>

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Procedure: New or Updated BACT Determinations, Continued

**Procedure for
Conducting a
BACT
Determination**
(continued)

Step	Action						
4	Permit Engineer/Primary Contact identifies any “achieved in practice” BACT.						
5	Permit Engineer performs a cost-effective analysis for any BACT option that is technologically feasible but not “achieved in practice”. [Procedures for this analysis are provided in the BACT/TBACT Workbook under the heading Policy and Implementation Procedures { http://www.baaqmd.gov/pmt/backworkbook/intro3.htm }. The EPA has established spreadsheets to assist on abatement cost estimation at its web site: http://www.epa.gov/ttn/oarpg/gen/concost.zip						
6	<p>Permit Engineer selects BACT:</p> <table border="1"> <thead> <tr> <th>If ...</th> <th>Then ...</th> </tr> </thead> <tbody> <tr> <td>Control technology is feasible and cost-effective</td> <td>Select this technology as BACT</td> </tr> <tr> <td>None are feasible or cost-effective</td> <td>Select “achieved in practice” BACT</td> </tr> </tbody> </table>	If ...	Then ...	Control technology is feasible and cost-effective	Select this technology as BACT	None are feasible or cost-effective	Select “achieved in practice” BACT
If ...	Then ...						
Control technology is feasible and cost-effective	Select this technology as BACT						
None are feasible or cost-effective	Select “achieved in practice” BACT						
7	Permit Engineer documents the details of the BACT analysis and its final resulting determination in the evaluation report.						
8	<p>The Permit Engineer provides a copy of the final evaluation report to the BACT Coordinator, if the BACT determination reflects a new or updated BACT:</p> <ul style="list-style-type: none"> • compared to what exists in the BACT/TBACT Workbook, or • reconfirms that the existing BACT determination (that is more than 4 years old) is still valid. 						

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Procedure: New or Updated BACT Determinations, Continued

Procedure for Updating the BACT/TBACT Workbook

The following steps apply if the BACT/TBACT Workbook requires updating to incorporate the BACT determination made by the Permit Engineer in Step 8 of the Procedures for Conducting a BACT Determination:

Step	Action
1	<p>BACT Coordinator sends BACT memo to Engineering Division Director for approval of updating of the BACT/TBACT Workbook. The BACT memo should include:</p> <ul style="list-style-type: none"> • A detailed BACT analysis (or a copy of the evaluation report for the permit application, if BACT analysis is in the evaluation report), • An underlined/strikethrough BACT page for inclusion into the BACT/TBACT Workbook, and • Any supporting documentation. <p>The BACT memo should describe the new BACT determination and be routed from the BACT Coordinator (optional Primary Contact and/or Permit Engineer) via the Engineering Projects Manager to the Engineering Division Director for approval.</p>
2	<p>Engineering Webmaster inserts “pending” BACT. Once approved, the BACT Coordinator shall contact the Engineering Webmaster to add the new or updated BACT determination to the BACT/TBACT Workbook with “pending” on the page, until the permit to operate (P/O) is issued. A footnote on the bottom of the “pending” page shall explain that the BACT determination is not yet effective, but pending final issuance of the permit to operate.</p>
3	<p>Upon P/O issuance, Permit Engineer notifies BACT Coordinator. The Permit Engineer shall inform the BACT Coordinator of the issuance of the permit to operate after 6 months of successful operation of the new BACT.</p>

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Procedure: New or Updated BACT Determinations, Continued

Procedure for Updating the BACT/TBACT Workbook (continued)

Step	Action	
4	BACT Coordinator notifies Engineering Webmaster to update BACT Workbook.	
	If BACT is ...	Then ...
	new or updated	The Engineering Webmaster shall remove the “pending” indicators from the new or updated BACT determination and any obsolete BACT determination shall be removed from the BACT/TBACT Workbook. The memo that was signed and approved by the Engineering Division Director in Step 1 shall be electronically scanned and stored in the Engineering Division’s Policy/Procedures electronic repository.
the same	The Engineering Division Webmaster shall change the date of the BACT determination and add a footnote to include the last permit evaluation’s application number that reconfirmed the existing BACT determination as current and valid. The copy of the evaluation report provided by the Permit Engineer shall be electronically scanned and stored in the Engineering Division’s Policy/Procedures electronic repository.	
5	BACT Coordinator updates the CAPCOA/CARB BACT Clearinghouse. The BACT Coordinator shall enter the new BACT determination using their online BACT Clearinghouse Submission Form {http://www.arb.ca.gov/bact/bactnew/bactinput.htm}.	

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Procedure: New or Updated BACT Determinations, Continued

Effective date December 19, 2006

Rationale Because BACT is constantly evolving, the District's BACT/TBACT Workbook must be constantly updated.

If the BACT determination in the District's BACT/TBACT Workbook is more than 4 years old, a BACT analysis shall be performed for each source subject to the BACT requirement of Regulation 2-2-301.

Definitions The following is a list of associated definitions.

- **BACT** – Best Available Control Technology as defined in Regulation 2-2-206.
- **TBACT** – Toxics Best Available Control Technology as defined in Regulation 2-5-205.
- **“Achieved in Practice” BACT** – Most effective emission control already in use. Alternatively, it must be the most stringent emission limit achieved in the field for the type and capacity of equipment comprising the source under review and operating under similar conditions for at least six months of successful operation in the United States. This control technology can be required as BACT without having to make a cost-effective determination.
- **Cost-effective analysis** – Cost analysis which is performed for any BACT options that are technologically feasible but not “achieved in practice.”

Additional Considerations in Reviewing BACT Information The following issues should be considered in reviewing BACT information:

- BACT determination can be searched by process type or source category in the electronic “clearinghouses.”
- Listing in one “clearinghouse” may not be in the others.
- A listing in the CAPCOA/CARB BACT Clearinghouse or other air district “clearinghouse” does not necessarily mean that the particular determination is BACT for the BAAQMD. The listing may merely be a candidate BACT for the District to consider because these listings may also be out of date.

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Procedure: New or Updated BACT Determinations, Continued

Additional Considerations in Reviewing BACT Information
(continued)

- The information provided in the “clearinghouses” may lack sufficient detail to determine whether the source under review is similar to the source listed in a clearinghouse. Hence, a thorough review of the underlying evaluation for the source listed in the clearinghouse may be required.
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Contact

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Document Control

Version	Revised By	Description	Date
1.1	MKCL	New Procedure	12/19/06
1.2	MKCL	Mapping Procedure	3/13/08

Approval

Name & Title	Signature	Date
Brian Bateman, Director of Engineering	Signed by Brian Bateman	2/28/2008
