



## Amend BACT Guidelines and Approve Charter for BACT Scientific Review Committee

BACT Scientific Review Committee  
November 9, 2016

### Background

- Held first public BACT Scientific Review Committee meeting on 5/11/16
- 9/16/16 SSC meeting staff directed to hold second BACT SRC meeting held on 9/27/16
- Additional 30-day comment period provided on proposed amended BACT Guidelines with third BACT SRC meeting held on 11/9/16
- Comments addressed in Attachment G of Board Letter Package
  - Comments/Responses received after 9/27/16 double underlined in Overview, Parts A, C, D and E.

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## Background (cont'd)

- BACT required for new and relocated sources and for modifications that increase emissions
- SCAQMD required to periodically publish BACT Guidelines which were first published in 1983
- Major facilities - Federal CAA requirement for LAER implemented through BACT
- Minor Source - BACT determined in accordance with State law H&SC 40440.11 (SB 456, 1995)
- This report summarizes proposed updates to the BACT Guidelines



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## BACT Guidelines Format

- Overview
- Part A - Policy and Procedures for Major Polluting Facilities
- Part B - LAER/BACT Determinations for Major Polluting Facilities
  - Section I – AQMD LAER/BACT Determinations
  - Section II – Other LAER/BACT Determinations
  - Section III – Other Technologies
- Part C – Policy and Procedures for Non-Major Polluting Facilities
- Part D - BACT Guidelines for Non-Major Polluting Facilities



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## BACT Scientific Review Committee

- Established in 1995 to increase public participation
- Made up of members from industry, government agencies, trade organizations, academia and consultants
- Review and comment on the appropriateness of proposed new and more stringent BACT determinations
- Not to comment on past permitting decisions or change them
- Meets periodically
- Reviews revisions to BACT Guidelines



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## Proposed Updates to BACT Guidelines

- Overview, Parts A, B, C, D and new Parts E & F (GHG BACT) to maintain consistency with recent changes to SCAQMD rules, State and Federal requirements
- Intent is for amendments to reflect current requirements with future updates planned
- Meets criteria for MS BACT
- Comments received
  - Clarifications, Corrections and make BACT Guidelines more User Friendly

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## Comments received after 9/27/16

- Overview
  - Chapter 1, page 4 – BACT nomenclature for GHG BACT changed to PSD BACT
  - Chapter 1, page 6 – PM2.5 value updated from 100 to 70 tpy for South Coast Air Basin in Table 1.
  - Chapter 3, page 9 – Correction “CO in attainment with state and federal AAQS.
  - Chapter 4, page 15, Replaced “Clean Fuel Requirements” in topic heading with “Clean Fuel Guidelines”
- Part A
  - Chapter 1, Page 25 – Added clarification that pollution prevention measures “are not required to include projects which are considered to redefine a source.”
  - Chapter 1, Page 25 – Changed wording to “consideration of the feasibility of:”
  - Chapter 1, Page 28 - Replaced “Clean Fuel Requirements” in topic heading with “Clean Fuel Guidelines”
  - Chapter 1, Page 28 – added electricity and utilization of zero and near-zero emission technologies also integrated into the Clean Fuels Policy.

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## Comments received after 9/27/16 (cont'd)

- Part B
  - AIP LAER Reliability – Proposed three Emerg. ICE w/ DPF determinations
- Part C
  - Chapter 1, Page 40 - Replaced “Clean Fuel Requirements” in topic heading with “Clean Fuel Guidelines”
  - Chapter 1, Page 40 – added electricity and utilization of zero and near-zero emission technologies also integrated into the Clean Fuels Policy
  - Chapter 2, Page 45 – Added clarification that pollution prevention measures “are not required to include projects which are considered to redefine a source”
  - Chapter 2, Page 45 – Changed wording to “consideration of the feasibility of:”
- Part D
  - I.C. Portable Engine, Page 68-69 – Corrected calculation error for CI HP ranges 75-175 and >750 for NMHC. 0.16 g/bhp-hr corrected to 0.14 g/bhp-hr. g/kW-hr values unaffected.
  - Stationary, Emergency ICE for DRP, p77 - Modified to allow spark ignition engines to participate in DRP with note that it may result in additional evaluation and stricter requirements.
  - Request to add UV/EV Flexographic, Metal Parts, Hand & Spray Layup, Screen Printing
  - Portable ICE BACT Policy for PERP ICEs

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## Comments received after 9/27/16 (cont'd)

- Part E
  - Chapter 1, Page 50 - Added wording to footnote regarding ongoing updates by EPA for 40 CFR 52.21 to establish significant emission rate
- BACT SRC Charter
  - Dates updated on title and header
  - Request for BACT SRC members directly advise Board
- Attachment G – Comment/Response
  - Overview: O32 through O38
  - Part A: A18 through A26
  - Part B: B15 and B16
  - Part C: C12 through C18
  - Part D: D9a, and D17 through D23 (Portable ICES)
  - Part E: No comments
  - Charter: Charter1

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## Overview updates

- Hyperlinks on Table of Contents
- Chapter 1
  - T-BACT reference
  - BACT Docket info updated
  - Hyperlinks added for web pages and e-mail
- Chapter 2
  - Updated map of SCAQMD, Fig. 1
  - PM<sub>2.5</sub> added & SO<sub>x</sub> updated Table 1- Major Facility Threshold
- Chapter 3
  - CO attainment and BACT requirement
  - PSD Requirements
  - Reference to Rules 1420.1 and 1420.2
  - Chlorobromomethane added to ODCs, Table 2
  - PM<sub>2.5</sub> added Table 3- NSR Applicability, CO n/a



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## Overview updates (cont'd)

- Chapter 4
  - PSD Rules section
  - BACT Docket info updated
  - Hyperlinks added for web pages and e-mail
- Chapter 5
  - Background and role of SRC
  - Link to list of current SRC members



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## Major Sources – Parts A & B updates

### Part A – Policy & Procedures

- Hyperlinks on Table of Contents
- Chapter 1
  - Fed PM 2.5 NSR and Rule 1325
  - Super “Compliant” Materials
- Other Considerations
  - Capture Efficiency
  - Pollution Prevention
  - Monitoring and Testing
- Clean Fuel Guidance – Electricity, Zero & Near-Zero technologies added. Fire suppressant pump ICE allowance



### Part B – LAER/BACT Determinations

- Continue working with Engineering and Compliance to update listings
- Flare Oil and Gas Production
- IC Engine, CI Emergency with DPF

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## Minor Sources

### Part C – Policy & Procedures

- Chapter 1
  - Part D BACT Determinations adoption date clarification
  - Updated Cost Effectiveness values - Marshall & Swift Equipment Cost Index
  - Updated quarterly – no longer published in Chemical Engineering Magazine
  - Top-Down cost methodology
  - Link reference to EPA Control Cost Manual
  - Clean Fuel Guidance - Electricity, Zero & Near-Zero technologies added. Fire suppressant pump ICs exempt
  - Updated BACT Update Process flowchart, Fig. 2
  - Same “Other Considerations” section as Part A
- Chapter 2
  - Super “Compliant” Materials
  - Other Considerations – same as Part A



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## Minor Sources (cont'd)

- Part D – BACT Determinations
  - Hyperlinks on Table of Contents
  - Boiler
  - IC Engine, Stationary, Emergency
  - IC Engine, Portable
  - IC Engine, Stationary, Non-Emergency, Non-Electrical Generators
  - IC Engine, Stationary, Non-Emergency, Electrical Generators
  - Liquid Transfer and Handling – Gasoline station
  - Process Heater – Non-Refinery
  - Oil and Gas Production

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## List of Abbreviations & Index of Equipment Categories

- Included new or previously omitted terms
- Changed title to “List of Equipment Categories”
- Updated categories

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## Proposed Charter for BACT Scientific Review Committee

- Mission – Assist and advise SCAQMD staff in updating BACT Guidelines
- Goals – Provide technical expertise on proposed BACT updates through the public process
- Objectives
  - Meet periodically to provide verbal and written comments
  - Contribute experience, knowledge and promote discussion regarding proposed technologies
- Membership qualifications, composition and operational guidelines

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## **Next Steps**

- **Present Proposed Amended BACT Guidelines and Proposed Charter for BACT SRC at 11/18/16 Stationary Source Committee**
- **Take Board Package to 12/2/16 Governing Board Meeting for approval**
- **Schedule a meeting with BACT SRC after 12/2/16 Board meeting to discuss future BACT determinations and updates to BACT Guidelines**

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