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.
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

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
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

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
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.

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
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

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$_{2.5}$ added & SOx 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$_{2.5}$ added Table 3- NSR Applicability, CO n/a
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

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

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
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 ICEs 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

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
Part E – Policy and Procedures for Facilities Subject to PSD for Greenhouse Gases (GHG)

- Regulation XVII applicability – Prevention of Significant Deterioration
- Facilities are subject to GHG BACT if:
  - Have potential to emit >75,000 tons/year of carbon dioxide equivalent (CO$_{2e}$)
- Must be subject to PSD for a pollutant other than GHG - U.S. Supreme Court decision in Utility Air Regulatory Group v. Environmental Protection Agency, 134 S. Ct. 2427 (2014)
- EPA’s PSD and Title V permitting guidance

Part F – BACT Determinations for Facilities Subject to PSD for GHG

- Work in Progress
- EPA Guidance emphasizes options that improve energy efficiency and possibly biomass
- Carbon Capture and Sequestration may be considered but likely cost prohibitive
- Potential impacted sources include:
  - Electricity Generation
  - Large industrial/commercial boilers
  - Cement industry
  - Refineries
  - Iron and Steel industry
List of Abbreviations & Index of Equipment Categories

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

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
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