#### SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

#### **Draft Staff Report**

**Proposed Amended Rule 1301 – General** 

**Proposed Amended Rule 1302 – Definitions** 

**Proposed Amended Rule 1303 – Requirements** 

**Proposed Amended Rule 1701 – General** 

**Proposed Amended Rule 1702 – Definitions** 

Proposed Amended Rule 1703 - PSD Analysis, and.

**Proposed Amended Rule 1704 – Exemptions** 

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#### **EXECUTIVE SUMMARY**

The purpose of the proposed amendments are to harmonize the Best Available Control Technology (BACT) requirements for both attainment and non-attainment pollutants in New Source Review (NSR) and Prevention of Significant Deterioration (PSD), programs governed by Regulation XIII and Regulation XVII, respectively. The amendments also clarify that permits may be issued in accordance with Regulation XIII, provided the facility complies with all applicable District rules and regulations or the facility is on an approved schedule for compliance with all District rules and regulations, updates the applicable state ambient air quality standards for modeling, deletes an obsolete paragraph on the applicability of Rule 2100, changes the subparagraph reference in Rule 1704 to reflect the deletion of subparagraph (a)(2) in the current version of Rule 1703 and updates the definition of major stationary source in Rule 1701 to be consistent with the current federal definition.

#### **BACKGROUND**

BACT is the cornerstone of the District's permitting process. In adopting Regulation XVII (PSD) in 1988, the Board affirmed its commitment to BACT by requiring that all sources with a net increase in emissions apply BACT even for attainment pollutants. This policy was reaffirmed in both the 1989 and 1999 amendments to Regulation XVII. At the time of adoption, the BACT definition and calculation procedure in Regulation XVII was synonymous with the BACT definition in Regulation XIII. In adopting Regulation XVII, the Board determined that it would be effective only upon delegation from U.S. EPA. The U.S. EPA revoked delegation on March 3, 2003, after the District indicated it could not implement the revised calculation methods in U.S. EPA's 2003 "NSR Reform". The District received partial delegation of PSD on July 25, 2007. The partial delegation applies to completely new facilities and modified facilities that do not use the NSR Reform calculation. (Sources requesting averaging provisions or different calculation methods are still required to seek PSD permits from U.S. EPA Region IX).

The requirements for BACT were amended in Rule 1303 in December 1995. One change was to bifurcate BACT into major source and minor source BACT. In addition, the definition of BACT was amended to establish BACT for a category or class of source, rather than on a permit-by-permit basis, for minor sources. A separate amendment in June 1990 changed the calculation procedure to determine whether or not BACT is required for permit modifications (BACT is required for a net emissions increase). The calculation procedure is now based on a potential to emit basis both before and after the modifications. Previously, the calculation procedure was based on past actual emissions compared to future potential emissions. None of the amendments made to BACT in Regulation XIII were made to Regulation XVII and a disconnect between the two definitions developed.

The District was recently designated as "attainment" for carbon monoxide (CO) effective June 11, 2007. With this designation, all sources with a net emission increase in CO are subject to the BACT requirements of Regulation XVII. All sources, including minor sources, are now subject to PSD analysis for CO and the BACT requirements of Regulation XVII.

Carbon monoxide is a pollutant that is dangerous to public health. CO also plays a role in the formation of tropospheric ozone. All major combustion sources that have been permitted in the last decade have included controls for CO that has been effective in minimizing the emissions of CO. The BACT standard for CO has been a major force in controlling and reducing CO emissions.

As the South Coast Basin has been declared attainment for CO, Regulation XIII no longer applies, since pursuant to Rule 1301(b)(1) – Applicability, Regulation XIII applies only to non-attainment air contaminants, ozone depleting compounds, and ammonia. Currently, Rule 1302(z) defines non-attainment air contaminant as one which has been declared non-attainment either by the California Air Resources Board (CARB) for the state standard or by U.S. EPA for the federal standard, and includes precursors that are specifically listed in current Rule 1302(af) and do not include CO. Staff believes that there is a need to continue to require CO sources to utilize BACT, both to assist in maintaining the federal and state CO standards and to limit any impact CO can have on the formation of tropospheric ozone. However, staff does not recommend offsets for attainment air pollutants. There is existing precedent for requiring BACT, but not offsets, under Regulation XIII for certain pollutants that are not non-attainment pollutants (such as ammonia and ozone depleting compounds).

Initially, BACT requirements in Regulation XVII were in alignment with BACT requirements in Regulation XIII. As Regulation XIII was amended, Regulation XVII was not, and that created a differentiation between the requirements for major and minor sources. Currently, the BACT definition under Regulation XIII is more stringent than the BACT requirements under Regulation XVII, even though there is a difference in the calculation methodology. Evaluating BACT on a source category basis as required under Regulation XIII is more stringent than a case-by-case basis as required under Regulation XVII. A case-by-case evaluation considers site-specific concerns and costs that would not be considered on a source category basis. The calculation procedure to determine if BACT is triggered may be more stringent under Regulation XVII than Regulation XIII because it calculates the emissions increase based on comparison between past actual emissions to future potential emissions. District staff has not previously implemented the BACT requirement provisions of Rule 1701(b) (1) for minor sources for any of the pollutants that the District is in attainment, which includes SO2, NO2, and most recently CO (SO2 and NO2 are treated as non-attainment air contaminants as they are considered precursors to PM10 and NO2 is also a precursor to ozone). District staff did not intend to require a more stringent BACT requirement for an attainment pollutant compared to a non-attainment pollutant for minor sources. Therefore, although the rule language in

Regulations XIII and XVII is not exactly the same, staff's interpretation is that the BACT requirement of Rule 1701(b) (1) for an attainment pollutant at a minor source should be the same as, and no more stringent than, the BACT requirement for that pollutant if it were a non-attainment pollutant or a precursor to a non-attainment pollutant at a minor source.

TABLE 1
COMPARISON OF CURRENT PSD AND CURRENT NSR

	Current PSD	Current NSR
Calculation Procedure	Actual to PTE	PTE to PTE
BACT	Case-by-case	Based on Source Category
Minor Source	No Provision	Separate BACT for Minor
		Source

#### PROPOSED AMENDMENTS

The purpose of the amendments to Rule 1301 – General; Rule 1302 – Definitions; Rule 1303 – Requirements; Rule 1701 – General; Rule 1702 – Definitions; Rule 1703 – PSD Analysis; and Rule 1704 – Exemptions, is to harmonize the BACT requirements for attainment and non-attainment pollutants. The BACT requirement in Regulation XVII reflects a previous version of Regulation XIII that does not differentiate between major and minor sources whereas the BACT requirement in the current version of Regulation XIII differentiates between major and minor sources. Although Regulation XVII addresses the permitting of extremely large sources of attainment pollutants, it was not designed to address the vast majority of the sources that the District permits.

District permitting staff will continue to require CO BACT for major sources under Regulation XVII, either through limited delegation negotiated with U.S. EPA or through U.S. EPA's PSD Regulations, if required. Staff is deleting the BACT requirements for attainment pollutants at minor sources from Rule 1701(b)(1) and adding it under Rule 1303 since the requirement for BACT under Regulation XVII for a major source is the same as the BACT requirement for a major source under Regulation XIII. The only difference will be between the definition of BACT for a major source and BACT for a minor source in Regulation XIII and our BACT guidelines document where the AQMD is required to consider cost in determining BACT for minor sources.

Staff is proposing to amend the rules so that current non-attainment contaminants that in the future become attainment contaminants are also subject to BACT, but not offsets or other Regulation XIII requirements. The direct and most appropriate way to accomplish this is to add the words "any attainment air contaminant" to Rule 1303 – Requirements, Section (a)(1) which requires the application of BACT to new or relocated sources and modifications. This makes it necessary to add a definition of "attainment air

contaminant" to Rule 1302 – Definitions. Staff is proposing to add "or state ambient air quality standard" after the words "national ambient air quality standard" in Rule 1302 – Definitions. Rule 1301 – General, is being amended to clarify that only BACT is required for a net emission increase of an attainment air contaminant, Ozone Depleting Compound (ODC) or ammonia.

By adding "any attainment air contaminant" to Rule 1303(a) (1), the requirement of BACT for all contaminants (attainment, non-attainment, ozone depleting compound – ODC, and ammonia) is automatically reflected in Rule 1303(a)(2) and (a)(3). BACT for all regulated air contaminants will be one uniform definition for major sources; one uniform definition for minor sources; and updated consistently within the BACT guidelines. For example, BACT for net emission increase of either a attainment air containment, non-attainment air contaminant, ammonia, or ODC at a minor source will be updated considering economic and technical feasibility.

Staff is also proposing to update Table A-2 in Appendix A of Rule 1303 to reflect changes to state ambient air quality standards that are applicable to the modeling requirement in Rule 1303(b)(1) and is deleting obsolete language in Rule 1301 regarding applicability of Rule 2100.

In addition, staff is proposing amendments to Regulation XVII. Currently, Rule 1703 – PSD Analysis, Subparagraph (a)(2) provides that a permit to construct must be denied unless "each permit unit is constructed using BACT for each criteria air contaminant for which there is a net emission increase". Currently, this provision would apply to minor sources of attainment pollutants. Staff does not believe the Board intends that attainment pollutants at minor sources be treated more stringently than non-attainment pollutants. Thus, staff recommends deleting Rule 1703(a)(2). Also, the definition of major stationary source in Rule 1702 is being updated to the most current federal definition in 40 CFR Part 52. Due to proposed deletion of sub-paragraph (a)(2) from the current version of Rule 1703, staff has made changes to paragraph references in Rule 1704 to reflect the proposed deletion.

The proposed amendments will cause all pollutants, regardless of attainment status, to comply with BACT. These amendments merely transfer the BACT requirements for minor sources from Regulation XVII, which is a federal delegated PSD regulation, to Regulation XIII, the NSR regulation. The proposed amendments will also provide a safety mechanism to ensure BACT is required for all net emission increases in case U.S. EPA withdraws its delegation of PSD authority to the District.

Additionally, the proposed amendments would clarify that compliance with Regulation XIII does not preclude a facility from complying with all other District rules and regulations. Staff is proposing language explaining past practice that permits may be issued in accordance with Regulation XIII provided the facility is in compliance with or on a schedule, consistent with Regulations V or VIII, for compliance with all applicable District rules and regulations. The proposed rule language in Rule 1303(b)(4) clarifies

that Staff may issue permits in accordance with Regulation XIII at a facility pending full compliance at the facility, if the modification or construction is consistent with a facility complying with all District rules and regulations, including Regulations V and VIII.

The following are the amendments proposed:

- ❖ Rule 1301 General: Add attainment air contaminants to section (a).
- ❖ Rule 1301 General: Add a paragraph (b)(4) to clarify that only the BACT requirements of Regulation XIII apply to attainment air contaminants, ODCs and ammonia.
- ❖ Rule 1301 General: Delete an obsolete paragraph regarding applicability of Rule 2100, a rule that has not been in effect since July 1, 1998.
- ❖ Rule 1302 Definitions: It is proposed to add the definition of "Attainment Air Contaminant" to the rule.
- ❖ Rule 1303 Requirements: The addition of "any attainment air contaminant" in Section (a) (1) is meant to clarify that BACT requirements apply to both attainment and non-attainment contaminants.
- ❖ Rule 1303 Requirements: Paragraph (b)(4) has been replaced with language for additional requirements in order to ensure that a facility that is in compliance with all District rules and regulations or is on an approved schedule for compliance with all applicable District rules and regulations. The purpose of this language is as explained above.
- ❖ Rule 1303 Appendix A: Table A-2 has been updated to the current state ambient air quality standards for NO₂ and PM₁₀.
- ❖ Rule 1701 General: With the proposed amendment to Rule 1303, staff believes that sub-section (b) (1) is no longer relevant and proposes deletion of Rule 1701(b) (1).
- ❖ Rule 1702 Definitions: Definition of BACT in paragraph (e) (1) is proposed to be modified to delete the reference to minor sources.
- ❖ Rule 1702 Definitions: Definition of Major Source in sub-division (m) is updated to the current U.S. EPA definition in 40 CFR Part 52 Section 52.21.
- ❖ Rule 1703 PSD Analysis: Paragraph (a) (2) is proposed to be deleted since the BACT requirement for any net emission increase of an attainment air contaminant is not applicable to this regulation. The BACT requirement for a significant emission increase of an attainment air contaminant at a major source is retained in sub-paragraph (a)(2)(B).
- ❖ Rule 1704 Exemptions: Reference to Rule 1703(a)(3) changed to (a)(2) to reflect proposed deletion of (a)(2) in current version of Rule 1703.

#### **RULE ANALYSIS**

The District is not in attainment with the state and federal air quality standards for PM or ozone. As noted in Rule 1302 (ag), VOC and NOx are precursors to ozone and SOx is a precursor to PM. Therefore, VOC, NOx and SOx are not considered in attainment with the ambient air quality standards because their presence in the atmosphere contributes to the violation of one or more national ambient air quality standards. Thus, only sources of CO, which is in attainment with the ambient air quality standards, will be affected by the proposed amendment. Sources of CO emissions include boilers, heaters, furnaces, turbines, internal combustion engines (ICEs), and other combustion equipment such as ovens.

These combustion sources were examined to determine the facilities potentially affected by the proposed amendment. BACT technology for CO for these sources include oxidation catalyst and equipment design (e.g., maintaining air to fuel ratio controller for boilers or lean burn for engines).

Reviewing the historical five-year database of modified combustion equipment with CO emissions, some of the potential sources, such as turbines or ICEs, did not demonstrate any modification activity. It was noted that ICE operators were replacing the engines rather than retrofitting or modifying. Out of these 150 applications, 10 applications were considered representative of all modifications and were selected for further evaluation. The list is included as Table 2 in this staff report. Table 3 outlines the combustion sources of CO emissions identified in the data base with past modification activity. In addition, the BACT technology under Regulation XVII and Regulation XIII are listed for comparison and analysis. The difference in the CO BACT limits among the boilers and heaters is based on their configuration.

TABLE 2
APPLICATIONS SELECTED FOR EVALUATION FOR BOILERS AND HEATERS
MODIFIED IN THE PAST FIVE YEARS

Equipment	
BCAT	BCAT Description
011504	BOILER (>20-50 MMBTU/HR) COMB GAS-LPG
010309	BOILER UTILITY (>50 MW)NAT.GAS/RESID.OIL
019704	HEATER/FURNACE (>20-50 MMBTU/HR)OTH FUEL
019004	HEATER/FURNACE (>20-50 MMBTU/HR) NAT GAS
011204	BOILER (>20-50 MMBTU/HR) COMB GAS-DISTIL
051015	BOILER (>50 MMBTU/HR) NAT & PROC GAS
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
039065	HEATER/FURNACE (>50 MMBTU/HR) NG & MISC
011004	BOILER (>20-50 MMBTU/HR) NAT GAS ONLY

All of the applications in the above table were evaluated for BACT for CO under the current Regulation XVII and the proposal under Regulation XIII. In each case BACT was determined to be the same for both the current Regulation XVII and the proposed Regulation XIII. Staff selected an application from the above table as an example for this report to describe our process to evaluate and analyze the results. The application selected was for a modification to a Fire-tube boiler, 12.6 MMBTUH, with a Powerflame, Lo-NOx burner, natural gas fired. The modification was to replace the Lo-NOx burner with a similar burner of same ratings and emissions. This boiler is installed at a minor source. At the time of the original permit, the potential-to-emit (PTE) emissions for CO were 11 lbs/day and the CO BACT requirement was 50 ppm @3% O<sub>2</sub>. The actual emissions were calculated as 6.6 lbs/day, assuming the actual emissions to be 60% of the PTE. As the modification is for a similar burner, the CO emissions PTE and the CO BACT requirement remain the same.

**TABLE 3**Potential Affected Sources

Equipment	Fuel	Regulation XVII BACT	Regulation XIII BACT
Boiler (<5 MMBTU/hr)	natural gas	No CO BACT	<50 ppmv @ 3% O2
Boiler (5-20 MMBTU/hr)	natural gas	50 ppmv @ 3% O2	50 ppmv @ 3% O2
Boiler (>20-50 MMBTU/hr)	natural gas	100 ppmv @ 3% O2	100 ppmv @ 3% O2
Boiler (>50 MMBTU/hr)	natural gas	No CO BACT	No CO BACT
Boiler (>20-50 MMBTU/hr)	combined gas	400 ppmv @ 3% O2	400 ppmv @ 3% O2
Boiler (>20-50 MMBTU/hr)	combined gas-LPG	No CO BACT	<50 ppmv @ 3% O2
Boiler Utility (>50 MW)	natural gas residential	2,000 ppm	2,000 ppm
Heater/Furnace (>20-50 MMBTU/hr)	natural gas	100 ppmv @ 3% O2	100 ppmv @ 3% O2
Heater/Furnace (>50 MMBTU/hr)	natural gas	Pending info	Pending info
Heater/Furnace (>20-50 MMBTU/hr)	other	No CO BACT	No CO BACT

As noted in Table 3, the BACT technology/emission limits to be required under Regulation XIII are either same as those already required under Regulation XVII or potentially more stringent. Currently, there is no CO BACT requirement for natural gas boilers (<5 MMBTU/hr) and combined gas-LPG boilers (>20-50 MMBTU/hr) under Regulation XVII, however, manufacturers of the boilers report these boilers already meet the 50 ppmv BACT requirement under proposed Regulation XIII. In some cases, lower emissions levels are reached because of add-on technology already required to control VOC or NOx emissions. Therefore, it is anticipated that no facilities will be affected by the proposed project beyond what is currently required or achieved. As a result, no new adverse impacts on the environment are expected.

After evaluating the historical data, staff believes that there will be minimal or no impact on BACT due to the proposed amendments.

#### EMISSION INVENTORY AND EMISSION IMPACTS

The proposed amendments are not expected to result in a significant difference in the emission inventory of attainment air contaminants. The proposed amendments are not expected to reduce the emissions of attainment air contaminants. However, they will prevent the increase in emissions to the extent controls are technologically feasible.

# COST, COST EFFECTIVENESS AND INCREMENTAL COST EFFECTIVENESS

The proposal could result in a control cost difference for specific permit units if there is a difference in control technology requirements between reasonably available control technology and BACT for carbon monoxide. Such instances are expected to be an exception rather than the rule. Since this amendment is not an AQMP control measure, the analysis for cost-effectiveness and incremental cost-effectiveness pursuant to California Health & Safety Code Section 40920.6 is not applicable.

#### **CEQA ANALYSIS**

Pursuant to State California Environmental Quality Act (CEQA) Guidelines, the AQMD is the Lead Agency and will prepare the appropriate CEQA document to address the potential environmental impacts from implementing the proposed amendments. The document will be circulated to the public for review and comment and will be available online, at the SCAQMD's Public Information Center, or by contacting the SCAQMD staff via phone, fax or e-mail. Comments on the CEQA document will be responded to and included in the final CEQA document.

#### SOCIOECONOMIC ANALYSIS

The proposed amendments remove major sources with insignificant emission increases and minor sources from the BACT requirement under Regulation XVII into that under Regulation XIII for attainment air contaminants. A source's emission increases as determined under the existing Regulation XVII (from past actual emissions to future potential emissions) could be larger than those under Regulation XIII (from past potential emissions to future potential emissions). The emission increase calculation is a key to determining whether BACT is triggered. Therefore, the proposed amendments could spare some sources from BACT.

Minor sources and major sources with less than "significant" emission increases for an attainment air contaminant currently are subject to the Regulation XVII BACT requirement which is evaluated on a permit by permit basis. Under the proposed amendments, these same sources will be subject to the Regulation XIII BACT

requirement which is based on source category and could thus be more stringent than the existing Regulation XVII BACT requirement.

Based on a review of 10 permit applications for modifications to boilers and heaters for CO in the past five years, the proposed amendments would not have resulted in impacts on BACT determinations that are different from the existing Regulation XVII. Therefore, staff believes the proposed amendments do not have a significant impact on air quality or emission limitations and an assessment of the socioeconomic impacts assessment was not performed.

#### **AQMP AND LEGAL MANDATES**

The California Health and Safety Code require the AQMD to adopt an Air Quality Management Plan (AQMP) to meet state and federal ambient air quality standards in the South Coast Air Basin. In addition, the California Health and Safety Code require that the AQMD adopt rules and regulations that carry out the objectives of the AQMP. While Proposed Amended Rule 1301 – General; Proposed Amended Rule 1302 – Definitions; Proposed Amended Rule 1303 – Requirements; Proposed Amended Rule 1701 – General; Proposed Amended Rule 1702 – Definitions; Proposed Amended Rule 1703 – PSD Analysis; and Proposed Amended Rule 1704 – Exemptions; are not control measures included in the AQMP, their requirements are consistent with the AQMP objectives. Since this proposal is not an AQMP control measure and does not result in emission reductions, cost effectiveness is not applicable.

#### **COMPARATIVE ANALYSIS**

This proposal does not impose a new emission limit or standard, make an existing emission limit or standard more stringent, or impose new or more stringent monitoring, reporting or recordkeeping requirements, and therefore, is not subject to the comparative analysis provisions of California Health & Safety Code Section 40727.2. Nevertheless, the PSD BACT requirement in Regulation XVII is equivalent to BACT requirement in federal PSD regulations and the BACT requirement for major sources in Regulation XIII is at least as stringent as LAER in federal NSR regulations. The BACT requirement for minor sources in Regulation XIII is more stringent than federal NSR regulations, since BACT does not apply to minor sources in federal NSR.

#### **RESOURCE IMPACTS**

Proposed amendments to Rule 1301 – General; Rule 1302 – Definitions; Rule 1303 – Requirements; Rule 1701 – General; Rule 1702 – Definitions; Rule 1703 – PSD Analysis; and Rule 1704 – Exemptions; can be implemented within the current staffing levels. No increases are anticipated with the proposed amendments.

#### **FINDINGS**

Before adopting, amending or repealing a rule, the AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference, as defined in Health and Safety Code Section 40727. The draft findings are as follows:

**Necessity** – The AQMD Governing Board has determined that a need exists to replace Rule 1301 – General; Rule 1302 – Definitions; Rule 1303 – Requirements; Rule 1701 – General; Rule 1702 – Definitions; Rule 1703 – PSD Analysis, and Rule 1704 – Exemptions; in order to harmonize the BACT requirements of attainment and non-attainment pollutants for both NSR and PSD, and clarify the facility-wide compliance requirements for issuance of permits in accordance with NSR.

**Authority** – The AQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Sections 40000, 40001, 40440, 42300 (permit system), and 40702 of the California Health and Safety Code.

Clarity – The AQMD Governing Board has determined that Rule 1301 – General; Rule 1302 – Definitions; Rule 1303 – Requirements; Rule 1701 – General; Rule 1702 – Definitions; Rule 1703 – PSD Analysis, and Rule 1704 – Exemptions; as proposed to be amended, are written or displayed so that its meaning can be easily understood by the persons directly affected.

Consistency – The AQMD Governing Board has determined that Rule 1301 – General; Rule 1302 – Definitions; Rule 1303 – Requirements; Rule 1701 – General; Rule 1702 – Definitions; Rule 1703 – PSD Analysis, and Rule 1704 – Exemptions; as proposed to be amended, are in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

**Non-Duplication** – The AQMD Governing Board has determined that Rule 1301 – General; Rule 1302 – Definitions; Rule 1303 – Requirements; Rule 1701 – General; Rule 1702 – Definitions; Rule 1703 – PSD Analysis; and Rule 1704 – Exemptions; as proposed to be amended, do not impose the same requirements as any existing state or federal regulation and is necessary and proper to execute the power and duties granted to, and imposed upon, the District.

**Reference** – The AQMD Governing Board, in amending the rule, references the following statutes which the AQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 42300, 40920.5, and CAA §§ 110 (minor source NSR),171, 172 and 182.

#### COMMENTS AND RESPONSE TO COMMENTS

The public workshop for the proposed amendments was on August 21, 2008. The following are the comments received and the response to comments received.

Comment: Reference Proposed Rule 1303(b)(4), what does "schedule for compliance"

mean?

Schedule for compliance means a schedule set under a variance, order of Response:

abatement, or under court order.

Does Regulation XVII still apply to major sources? Comment:

Major sources are still subject to Regulation XVII. Response: The proposed

> amendments harmonize the BACT requirements for both major and minor sources for all contaminants, attainment and non-attainment, and move the minor source BACT requirements to Regulation XIII. BACT for attainment

contaminants are the same as federal LAER.

Comment: How does Regulation XVII analysis apply for CO under PSD?

Under the current regulation and the proposed amendment, full PSD Response:

analysis is required for a major CO source that would be newly constructed or an existing major CO source that is modified with a significant increase in CO emissions since CO is an attainment air contaminant. In addition, the current regulation requires BACT for any source with a net emission increase of CO. This provision is proposed to be moved to the requirements

in Regulation XIII.

Comment: How do we account for PTE for any pre-Regulation XIII sources?

Response: A modification to a pre-Regulation XIII source compares the actual

emissions discounted to BACT before modification to the PTE after

modification.

Comment: Does Regulation XVII currently apply to minor source CO increase?

Yes, only to the application of BACT if there is a net increase of CO Response:

emissions. The proposed amendment is to relocate the minor source BACT

requirement for attainment contaminants such as CO to Regulation XIII.

Comment: What if only part of the package is approved by U.S. EPA?

Staff expects U.S. EPA to approve the complete package for inclusion in the Response:

> SIP as a single action. To do so otherwise would result in the continued disharmony in the BACT requirements in Regulations XIII and XVII until

the complete package is approved for inclusion in the SIP.

Draft Staff Report – Proposed Amendments to Regulation XIII and Regulation XVII

### CONCLUSIONS AND RECOMMENDATION

Staff recommends amendments, as proposed to Rule 1301 – General; Rule 1302 – Definitions; Rule 1303 – Requirements; Rule 1701 – General; Rule 1702 – Definitions; Rule 1703 – PSD Analysis; and Rule 1704 – Exemptions; for the reasons stated in this staff report.

## ATTACHMENT A

# MODIFICATION APPLICATIONS FOR BOILERS AND HEATERS MODIFIED IN THE PAST 5 YEARS

Equipment BCAT	Equipment Description
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
011005	BOILER (>50 MMBTU/HR) NAT GAS ONLY
011005	BOILER (>50 MMBTU/HR) NAT GAS ONLY
019201	HEATER/FURNACE (<5 MMBTU/HR) GAS-DIST
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
059601	HEATER/FURNACE (<5 MMBTU/HR) PROC GAS
011004	BOILER (>20-50 MMBTU/HR) NAT GAS ONLY
015102	BOILER/HOTWATER HEATER,SINGLE FACILITY,PORTABLE,<600,000BTU/HR,DIESEL/OIL FIRED
011704	BOILER (>20-50 MMBTU/HR) OTHER FUEL
011004	BOILER (>20-50 MMBTU/HR) NAT GAS ONLY
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
019603	HEATER/FURNACE (5-20 MMBTU/HR) PROC GAS
011745	BOILER (>50 MMBTU/HR) COAL
011004	BOILER (>20-50 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011204	BOILER (>20-50 MMBTU/HR) COMB GAS-DISTIL
011204	BOILER (>20-50 MMBTU/HR) COMB GAS-DISTIL
011205	BOILER (>50 MMBTU/HR) COMB GAS-DISTILL
019003	HEATER/FURNACE (5-20 MMBTU/HR) NAT GAS
011504	BOILER (>20-50 MMBTU/HR) COMB GAS-LPG
011504	BOILER (>20-50 MMBTU/HR) COMB GAS-LPG
011504	BOILER (>20-50 MMBTU/HR) COMB GAS-LPG
011504	BOILER (>20-50 MMBTU/HR) COMB GAS-LPG
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011203	BOILER (5-20 MMBTU/HR) COMB GAS-DISTILL
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
019003	HEATER/FURNACE (5-20 MMBTU/HR) NAT GAS
019003	HEATER/FURNACE (5-20 MMBTU/HR) NAT GAS

Equipment BCAT	Equipment Description
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011004	BOILER (>20-50 MMBTU/HR) NAT GAS ONLY
011203	BOILER (5-20 MMBTU/HR) COMB GAS-DISTILL
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011203	BOILER (5-20 MMBTU/HR) COMB GAS-DISTILL
011004	BOILER (>20-50 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011204	BOILER (>20-50 MMBTU/HR) COMB GAS-DISTIL
011204	BOILER (>20-50 MMBTU/HR) COMB GAS-DISTIL
019003	HEATER/FURNACE (5-20 MMBTU/HR) NAT GAS
011503	BOILER (5-20 MMBTU/HR) COMB GAS-LPG
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
019003	HEATER/FURNACE (5-20 MMBTU/HR) NAT GAS
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
059605	HEATER/FURNACE (>50 MMBTU/HR) PROC GAS
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
019704	HEATER/FURNACE (>20-50 MMBTU/HR)OTH FUEL
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011203	BOILER (5-20 MMBTU/HR) COMB GAS-DISTILL
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY

Equipment BCAT	Equipment Description
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011203	BOILER (5-20 MMBTU/HR) COMB GAS-DISTILL
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011203	BOILER (5-20 MMBTU/HR) COMB GAS-DISTILL
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011605	BOILER (>50 MMBTU/HR) PROCESS GAS
011503	BOILER (5-20 MMBTU/HR) COMB GAS-LPG
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011504	BOILER (>20-50 MMBTU/HR) COMB GAS-LPG
011504	BOILER (>20-50 MMBTU/HR) COMB GAS-LPG
019001	HEATER/FURNACE (<5 MMBTU/HR) NAT GAS
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
019004	HEATER/FURNACE (>20-50 MMBTU/HR) NAT GAS
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011503	BOILER (5-20 MMBTU/HR) COMB GAS-LPG
019003	HEATER/FURNACE (5-20 MMBTU/HR) NAT GAS
059133	HEATER/FURNACE (5-20 MMBTU/HR) NG & MISC
019604	HEATER/FURNACE (>20-50 MMBTU/HR)PROC GAS
019604	HEATER/FURNACE (>20-50 MMBTU/HR)PROC GAS
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
011703	BOILER (5-20 MMBTU/HR) OTHER FUEL
011703	BOILER (5-20 MMBTU/HR) OTHER FUEL
011902	BOILER < 2MM BTU/HR OIL-FIRED DIESEL
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
019001	HEATER/FURNACE (<5 MMBTU/HR) NAT GAS
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
031003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY C/G

Equipment BCAT	Equipment Description
031003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY C/G
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011205	BOILER (>50 MMBTU/HR) COMB GAS-DISTILL
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
051701	BOILER (<5 MMBTU/HR) OTHER FUEL; RES REC
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
011902	BOILER < 2MM BTU/HR OIL-FIRED DIESEL
011902	BOILER < 2MM BTU/HR OIL-FIRED DIESEL
011902	BOILER < 2MM BTU/HR OIL-FIRED DIESEL
059303	HEATER/FURN (5-20 MMBTU/HR)NG/PG&OTH OIL
010309	BOILER UTILITY (>50 MW)NAT.GAS/RESID.OIL
010009	BOILER UTILITY (>50 MW)
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
019605	HEATER/FURNACE (>50 MMBTU/HR)PROCESS GAS
019704	HEATER/FURNACE (>20-50 MMBTU/HR)OTH FUEL
019004	HEATER/FURNACE (>20-50 MMBTU/HR) NAT GAS
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011204	BOILER (>20-50 MMBTU/HR) COMB GAS-DISTIL
039001	HEATER/FURNACE (<5 MMBTU/HR) NAT GAS
051015	BOILER (>50 MMBTU/HR) NAT & PROC GAS
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY

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Equipment BCAT	Equipment Description
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011001	BOILER (<5 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011203	BOILER (5-20 MMBTU/HR) COMB GAS-DISTILL
019003	HEATER/FURNACE (5-20 MMBTU/HR) NAT GAS
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011203	BOILER (5-20 MMBTU/HR) COMB GAS-DISTILL
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
011003	BOILER (5-20 MMBTU/HR) NAT GAS ONLY
039065	HEATER/FURNACE (>50 MMBTU/HR) NG & MISC
011004	BOILER (>20-50 MMBTU/HR) NAT GAS ONLY