BAY AREA AIR QUALITY MANAGEMENT DISTRICT

UPDATES TO NEW SOURCE REVIEW AND TITLE V PERMITTING PROGRAMS

REGULATION 2 – RULES 1, 2, 4 & 6

BACKGROUND DISCUSSION FOR SECOND DRAFT OF PROPOSED AMENDMENTS

&

RESPONSES TO COMMENTS RECEIVED ON FIRST DRAFT

May 25, 2012

INTRODUCTION AND EXECUTIVE SUMMARY

Staff of the Bay Area Air Quality Management District (District) are issuing a second draft of their proposed amendments to Regulation 2. The proposed amendments will update the District's New Source Review (NSR) and Title V permitting programs (District Regulation 2, Rules 1, 2, 4 & 6). The proposed amendments will update the NSR and Title V permitting programs as follows:

1. Add NSR Permitting requirements for $PM_{2.5}$, which is required because of EPA's designation of the Bay Area as non-attainment for the 24-hour $PM_{2.5}$ National Ambient Air Quality Standard.
2. Add GHGs as a Regulated Air Pollutant subject to the District's NSR and Title V permitting programs, because of EPA's recent regulation of GHGs.
3. Adopt a District "Prevention of Significant Deterioration" (PSD) Program for EPA approval. The District has never had an EPA-approved program for this important element of NSR permitting.
4. Update, reorganize and clarify the regulatory language to make it easier to understand and apply.

In addition, there are also certain aspects of the District's current permitting programs that do not satisfy EPA's requirements for these programs. The proposed amendments will address any such discrepancies that Staff have identified.

Staff are publishing this document to explain the rationales behind the second draft of the proposed amendments, as well as to respond to comments Staff received on the first draft. Those comments were received after a public workshop that Staff held on February 22, 2012, as well as three meetings of a technical working group that Staff convened to discuss the specific regulatory language addressed by the proposed amendments, on February 28, 2012, and March 8 and 20, 2012. This document provides a written response to all of the comments that were received, and explains Staff's rationales for further revisions being made in the second draft. These further changes are shown in the second draft of the proposed amendments that Staff are publishing along with this document.

Briefly, the major changes in the second draft include the following:

1. Adding a requirement for all new sources and modifications that will result in a significant increase in emissions to demonstrate that they will not cause or contribute to an exceedance of any National Ambient Air Quality Standard. Such a demonstration was proposed in the first draft for PSD Projects; Staff are now proposing to require such a demonstration for <u>all</u> projects with a significant increase in emissions of <u>any</u> pollutant (including non-attainment pollutants). This proposal is addressed in Section I.C.
2. Providing additional flexibility in calculating baseline emissions for purposes of determining whether PSD permitting requirements apply for GHGs. The District's baseline calculation procedures normally use emissions during the three most recent years to establish the baseline; Staff are proposing to allow facilities to use a period going back as far as ten years for establishing the baseline for GHG emissions. (The baseline period would remain the same for other pollutants.) This proposal is addressed in Section III.

3. Eliminating the provision for inter-pollutant offset trading that allowed POC reductions to be used to offset NOx emissions increases. Such trading is beneficial for purposes of addressing ozone, but NOx is also a precursor to $PM_{2.5}$ and using POC reductions to offset NOx increases does not result in an air quality benefit from a $PM_{2.5}$ perspective. Moreover, such trading is no longer allowed under EPA's regulations. This proposal is addressed in Section I.B.2.
4. Expanding the requirements for protection of visibility in Class I Areas to include non-attainment pollutants. The first draft required a review of visibility impacts in Class I Areas for PSD pollutants; staff are expanding the requirement in the second draft to include non-attainment pollutants as required by EPA regulations. This proposal is addressed in Section III.
5. Adding provisions describing the procedures for calculating the $PM_{2.5}$ fraction of existing banked PM_{10} emission reduction credits, and for calculating the amount of banked PM credits when condensable PM emissions are included. These procedures will provide clear, objective standards that will establish how the District's historical regulation of particulate matter will transition into the new regulatory environment with regulation of the $PM_{2.5}$ fraction and enhanced testing methods. These provisions are described in Section I.D.2.

In addition to these further changes, Staff are also considering whether to amend the definition of "modification" in Section 2-1-234 to add an additional element to the definition that would incorporate the federal Major NSR applicability test. Staff are soliciting further input on whether to add this test to the definition, as explained in Section IV.E.2 herein. Staff are also making a number of other adjustments to the changes proposed in the first draft in response to the comments received, as explained herein.

Staff are circulating this discussion report to provide interested parties with the background on Staff's reasoning behind the second draft proposed amendments and to provide written responses to all of the comments that were submitted. **Interested parties are invited to review the revised proposal and Staff's responses to the comments and to submit any further comments.** Comments should be in writing and should be directed to Carol Lee at the Bay Area Air Quality Management District, 939 Ellis Street, San Francisco, CA, 94117; or electronically at clee@baaqmd.gov. **Comments must be received by June 25, 2012**, in order that Staff can consider them before finalizing any proposal to submit for consideration by the District's Board of Directors. Ms. Lee may also be reached by phone to answer any questions at (415) 749-4689.

In addition, in response to suggestions from members of the public, Staff will be preparing (through a consultant) an Environmental Impact Report (EIR) to evaluate whether anything in the proposed amendments may have the potential to cause any significant environmental impacts. Staff will be undertaking this EIR process to ensure that the District complies with all applicable requirements under the California Environmental Quality Act (CEQA). Concerns regarding the potential for significant environmental impacts are important and warrant a formal EIR analysis to consider all relevant issues in detail. The District will be able to make a fully-informed determination on whether or not there will be any such significant environmental impacts at the conclusion of the EIR process. Staff invite interested members of the public to participate in that process. Staff anticipate publishing an Initial Study/Notice of Preparation shortly, which will formally commence the EIR process. Notice regarding the CEQA process will be provided separately.

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I. UPDATING NSR PERMITTING REQUIREMENTS FOR PARTICULATE MATTER

One of the principal reasons for the proposed amendments to Regulation 2 is to update the District's NSR program to add new permitting requirements directed specifically at the smallest fraction of particulate matter, $PM_{2.5}$. EPA has established new particulate matter NAAQS aimed specifically at $PM_{2.5}$, and the Bay Area has been designated as non-attainment for the short-term (24-hour) NAAQS for this particulate matter fraction. As a result, the District is required to adopt Non-Attainment NSR permitting requirements for $PM_{2.5}$ specifically. (Regulation 2 already includes provisions applicable to the larger fraction of particulate matter, PM_{10}.) The proposed amendments add requirements specific to $PM_{2.5}$. In addition, EPA has also updated its testing requirements for particulate matter, for both PM_{10} and $PM_{2.5}$, as testing methods have improved. EPA now requires that all testing and measurement of PM_{10} and $PM_{2.5}$ must take into account both filterable and condensable particulate matter emissions. In the past, the testing and measurement requirements did not specify whether both portions had to be included, and in many cases only the filterable portion was included when NSR permitting was done for particulate matter. The proposed amendments will update the definition of particulate matter, for PM_{10} and $PM_{2.5}$, to state explicitly that all PM_{10} and $PM_{2.5}$ measurements and regulatory determinations must be based on both filterable and condensable particulate matter emissions for all purposes under Regulation 2.

The District received comments on these proposed amendments as follows.

A. $PM_{2.5}$ BACT Requirement

Comment I.A.1. - Best Available Control Technology for $PM_{2.5}$: In the first draft, Staff proposed to require Best Available Control Technology (BACT) for $PM_{2.5}$ for sources with the potential to emit over 10 pounds per day of $PM_{2.5}$. Although this threshold would be far more stringent that is required by EPA – EPA's program only requires BACT for facilities over 100 tons per year and with increase of over 10 tons per year – this is the same regulatory threshold that the District uses for other criteria pollutants. (See Regulation 2-2-301.) Some commenters supported setting the threshold for $PM_{2.5}$ BACT at this level. Others suggested that the District should consider using a different threshold. These commenters stated that in some cases, a $PM_{2.5}$ source could have health impacts on nearby receptors at an emissions rate of less than 10 pounds per day. They suggested that the District should evaluate different emissions rates from typical sources to see whether some other threshold would be more appropriate in terms of ensuring that $PM_{2.5}$ emissions do not cause adverse health impacts.

Response: Staff are not proposing to depart from the 10 lb/day BACT threshold that the District has historically been applied to criteria pollutants, including the larger fraction of particulate matter, PM_{10}. Staff considered whether the BACT threshold for $PM_{2.5}$ should be set at a different level in order to address the concern raised in the comments about potential health impacts to nearby sensitive receptors. Such concerns about toxic health risks to sensitive receptors are very important, and are a central part of the District's ongoing regulatory efforts regarding $PM_{2.5}$. Such toxic health risks are best addressed through the District's "Toxics New Source Review" permitting requirements in Regulation 2,

Rule 5, however.[1] That program, which the District updated most recently in 2010, requires a review of new and modified sources to ensure that such sources will not cause any significant toxic health risks to nearby sensitive receptors, using the most recent toxics evaluation protocols developed by the California Office of Environmental Health Hazard Assessment (OEHHA). The Toxics NSR program specifically takes into account diesel PM, which is one of the principal drivers of health risk in fine particulate matter, among a long list of other toxic health hazards. The program does not yet address $PM_{2.5}$ health risk in other contexts beyond diesel PM, but that is because the scientific understanding of such risks and how to evaluate them is still evolving. As the state of the science evolves and OEHHA develops health risk protocols for $PM_{2.5}$ in other contexts in addition to diesel PM, the District's Toxics NSR program will incorporate them as well.

Moreover, the Toxics NSR program targets the specific location at which the source will be causing the emissions and requires an analysis of impacts on specific sensitive receptors that may be located near that source. In this way, the Toxics NSR program is a better tool to address the potential for health risks from specific sources on nearby receptors, compared with the BACT requirement under Regulation 2, Rule 2, which uses a one-size-fits-all applicability threshold that applies to all sources regardless of whether they will be located near any sensitive receptors or not.

For all of these reasons, the District's Toxics NSR program is the best tool to address potential health risks from $PM_{2.5}$ sources (in addition to other tools outside of the District's regulations, such as CEQA). Staff are therefore not proposing that the District adopt a $PM_{2.5}$ BACT threshold that would be tailored to specific health risks from individual $PM_{2.5}$ sources. That type of analysis is undertaken in accordance with the requirement so Regulation 2-5. BACT under Regulation 2-2 is still an important regulatory tool for ensuring the Bay Area's compliance with the $PM_{2.5}$ NAAQS, of course, and implementing the BACT requirement at 10 lb/day will help accomplish that goal. But for targeting potential health risks to nearby sensitive receptors, toxics NSR is the more appropriate tool. The second draft therefore retains the 10 lb/day BACT applicability threshold for regulating $PM_{2.5}$ under Section 2-2-301.

B. $PM_{2.5}$ Offsets Requirement

Comment I.B.1. - Use of Banked Credits to Offset New Emissions Increases: The District received comments stating that allowing facilities to use banked emission reduction credits (offsets) to counteract new emissions increases is problematic. The comments stated that using banked emission reduction credits allows for local increases in emissions, while only requiring reductions elsewhere where the benefits may not accrue in the local area where the new increase will occur. The comments cited environmental justice concerns regarding the use of banked credits. These comments stated that the District's regulations should not allow banking and trading of emission reduction credits.

[1] Note that there are also other regulatory provisions in place beyond the Air District's regulations that address concerns such as this. CEQA, for example, requires an evaluation of toxic risks to sensitive receptors from air emissions, and this requirement will also help address the important concerns that these comments are addressing.

Response: The Clean Air Act has long provided for the use of banked credits to satisfy offsets requirements. EPA's federal Non-Attainment NSR provisions provide for banking of emission reductions,[2] as do the District's NSR provisions adopted under the California Health & Safety Code. There are a number of reasons why allowing emissions reductions to be banked is beneficial. First and foremost, allowing banking of voluntary emission reductions provides an incentive for facilities to shut down existing operations and take credit for the resulting emission reductions. Without banking, a facility would have an incentive to delay such shutdowns so that the reductions could be used in future offset situations. Banking also allows for future growth and development while at the same time ensuring protection of the NAAQS and related air quality goals. Without banking, no new sources subject to offset requirements could be built except in the same location where an existing source is located that could be shut down to allow for the new source. This would remove any flexibility for the Bay Area to locate any such sources except in locations where sources are already present. And the banking rules ensure that attainment and maintenance of the NAAQS are not jeopardized, because all such banked credits are accounted for in the District's planning analyses as if the emissions were still being emitted. The District's control strategy for attaining the NAAQS is not impacted in any way depending on whether emissions banking is allowed or not.

Staff agree that the District's NSR program must support the District's efforts to promote environmental justice throughout the Bay Area. The District imposes a number of safeguards to ensure that emissions banking and the use of banked credits will not allow any significant adverse air impacts in any community, including environmental justice communities. Even where a new or modified source is built using banked credits, that source is still subject to the District's Toxics New Source Review requirements, among others. As discussed above, the Toxics NSR requirements ensure that such sources will not have any significant adverse health impacts on any nearby sensitive receptors.[3]

In addition, Staff are proposing in the second draft an additional requirement for all new and modified sources that will cause a significant emissions increase to demonstrate that they will not cause or contribute to any exceedance of any National Ambient Air Quality Standard. This demonstration will need to be made for the specific area around where the source will be located. This additional requirement will further ensure that the use of banked emission reduction credits will not allow any source to cause significant environmental impacts in any community.

For all these reasons, Staff are not proposing any major substantive changes to the District's current rules that allow for the use of banked emission reduction credits, and are implementing the $PM_{2.5}$ offsets requirements using these same emissions banking provisions.

Comment I.B.2. - Inter-pollutant Trading for NOx and POC as $PM_{2.5}$ Precursors: The District received comments stating that it should not allow POC emission reductions to offset NOx emissions increases. The comment stated that NOx and POC are $PM_{2.5}$ precursors, and the proper trading ratios (i.e., the

[2] *See* 40 C.F.R. Part 51, Appendix S, Section IV.C.5 (" 'Banking' of emission offset credit.").

[3] As also mentioned above, other requirements outside of the District's regulations provide additional protections, such as CEQA.

ratios at which a certain amount of NOx reductions should be considered equivalent to a certain amount of POC reductions) are not well understood with respect $PM_{2.5}$ impacts. The comment also questioned the District's assumption on which the District's current POC-for-NOx trading provision (current Regulation 2-2-302.2) is based – that ozone formation in the Bay Area is POC-limited[4] – and suggested that the District should not prefer POC reductions over NOx reductions in addressing ozone concerns. The comment stated that the District should not allow POC emission reduction credits to be used to offset NOx emissions.

Response: In considering these comments, Staff first note that the Bay Area is POC-limited with respect to ozone formation, and so the rationale for allowing POC reductions to be used to offset NOx emissions increases remains valid. NOx is a $PM_{2.5}$ precursor, however, as the comments note, whereas POC is not. From a $PM_{2.5}$ perspective, therefore, this same rationale does not apply. Moreover, Staff reviewed EPA's requirements for inter-pollutant trading for Non-Attainment NSR in 40 C.F.R. Section 51.165(a)(11), which apply for NOx and POC as ozone precursors. Those requirements do not allow inter-pollutant trading at all for ozone precursors. Under that paragraph, inter-pollutant trading is allowed only for $PM_{2.5}$ under certain specific conditions as specified in that paragraph. For these reasons, Staff are removing the POC/NOx inter-pollutant trading provisions in the second draft.

Staff also considered the similar provisions in Section 2-2-303 regarding inter-pollutant trading for PM_{10} and NOx and SO_2 as PM_{10} precursors. These concerns that warranted removal of the NOx/POC trading provisions do not apply in the PM_{10} precursor context. First and foremost, inter-pollutant trading between PM_{10} and its precursors is not allowed unless the applicant first makes a showing that there will be a net air quality benefit and EPA concurs after public notice and comment. This showing must demonstrate on a case-by-case basis, based on modeling, that the trading will in fact improve air quality. This requirement eliminates the concern discussed above with NOx/POC trading that such trading could actually have a negative air quality impact. Second, the prohibition in 40 C.F.R. Section 51.165(a)(11) does not apply for PM_{10} offsets because the Bay Area is attainment for PM_{10}; Section 51.165 does not apply. (Note that this trading is allowed for PM_{10} only, not for $PM_{2.5}$.) For both these reasons, Staff are not removing the provisions allowing for inter-pollutant trading for NOx and SO_2 as PM_{10} precursors.

Comment I.B.3. - Ensuring that Offsets are "Surplus": A commenter noted that CAA Section 173(c)(1) requires that offsets provided for a new or modified source must be in effect and enforceable by the time the source commences operation; and must ensure that the total tonnage of increased emissions must be offset by an equal or greater amount of actual emissions reductions from the same or other sources in the area. The commenter stated that the District's offsets provisions do not satisfy these

[4] "POC limited" means that there is additional NOx in the atmosphere compared to POC, so that the chemical reaction that forms ozone can continue up until all the available POC is used up. Since there is additional NOx available, obtaining reductions in NOx is not as important as obtaining reductions in POC, because removing POC from the atmosphere will reduce the potential for ozone formation in a way which removing NOx will not. The fact that the Bay Area is POC-limited was the basis on which the District adopted its provision allowing POC credits to be used to satisfy NOx offset reduction requirements, because the District would prefer to get POC reductions and the additional ozone-reduction benefit associated with them, as compared to getting the same amount of NOx reductions.

requirements; it stated that the District's program does not require the use of offsets that are "surplus" as required by the CAA. The commenter stated that the District must ensure that offsets provided for new or modified sources are "surplus at the time the project begins."

Response: Staff disagree that the District's banking and offset provisions allow for the use of emission reduction credits that are not "surplus" as required by the Clean Air Act. The amount of emissions reduction credits that the District will credit for offsets purposes is based on the actual emissions of the source that is shut down to generate the credit, and the amount of credits that must be provided is equal to or greater than the total tonnage of the new emissions being offset, as required by Section 173(c)(1). Moreover, the District adjusts the actual emissions baseline for the source that is shut down to generate the credit downwards to reflect the most stringent regulatory requirements that are in effect when the source is shut down, in order to satisfy the requirement that such reductions are "surplus" (i.e., in excess of what the source would be required to do anyway under applicable regulatory requirements). The District refers to this reduction in the baseline as the "RACT adjustment".[5]

These comments appear to relate to whether any further adjustment to a banked credit should be made after the source is shut down that generated the credits, in the event that new regulations are promulgated in the future after the shutdown takes place. Such further reduction is not warranted or required under CAA Section 173. Section 173(c)(2) prohibits credit from being granted for reductions at a source that are otherwise required by law. But once a source is shut down and is no longer generating emissions, any new regulations that come into effect after that time cannot by definition require anything further of the source that has been shut down. If a source is shut down and not operating, then any new regulations will not – and by definition cannot – require anything further from that source. Thus, applying the RACT adjustment when the source is shut down and the emission reduction is banked satisfies the CAA's requirement that offsets be "surplus" of what is required anyway by regulatory requirements. There is no CAA requirement to further reduce the amount of credit generated based on new regulations that are adopted later, because any such regulations will not require reductions from a source that is not in operation.

Moreover, any such further reduction would not make any difference in the Bay Area's ability to make "Reasonable Further Progress" or attain the NAAQS – which is the whole purpose of the Section 173 requirements (and the CAA Non-Attainment Plan requirements in general in Subpart D of Title I of the Act). The full amount of all banked credits is carried in the District's emissions inventory that is used as the basis for planning for attainment. When new regulatory requirements come into effect, this emissions inventory does not take credit for how such requirements would impact sources that have already been shut down. This is logical from an accounting perspective because the new requirements will not have any effect in obtaining emission reductions from sources that are not emitting anymore. But it also means that the District's strategy for attaining and maintaining the NAAQS is built on an assumption that such credits will not be adjusted for such new regulations. That is, when the District

[5] The comment referenced CAA Section 173(c)(1), but the "surplus" requirement is in Section 173(c)(2), which states that "[e]mission reductions otherwise required by this chapter shall not be creditable as emissions reductions for purposes of any such offset requirement."

commits to measures to achieve regional emission reductions necessary to attain the NAAQS, such measures inherently take into account the fact that they will not have any effect on sources that have already been shut down, and that banked credits will be used in the amount that was credited at the time of the shutdown. There is no need to further adjust such banked credits in order for such measures to be effective to achieve their stated goals.

Finally, undertaking a further adjustment to a banked credit after it was generated would be a significant additional administrative burden on the District's banking program, because a RACT adjustment requires a detailed engineering review of what emissions the source actually emitted and what part of those emissions may have been in excess of recently-adopted regulatory standards. This additional administrative step would be unduly burdensome where it is not necessary to achieve the clean air goals that underlie the offsets requirements. Moreover, it would add significant regulatory uncertainty to the program, as holders of banked credits would not be able to determine with certainty exactly how much emission reductions their credits will actually reflect. Holders of such credits could even be encouraged to use them sooner, out of a concern that they may lose value, whereas it is always preferable for such credits to remain in the bank where they are carried on the inventory for accounting purposes but are not actually being emitted.

For all of these reasons, Staff disagree with these comments that the District's offset provisions fail to satisfy the Clean Air Act's requirements, either in letter or in spirit. Staff are not proposing to delete the provisions for banking of emission reduction credits in the second draft.

C. Evaluating Ambient Air Quality Impacts from Non-"Major" Facilities

Comment I.C.1. - Evaluating Potential PM and Other Ambient Air Quality Impacts from Non-Major Sources: The District received comments suggesting that the District should evaluate and consider potential PM impacts from smaller PM emissions sources, in particular from sources that are below the NSR "major" source thresholds. The commenter suggested that the District should consider the extent to which such non-major sources could cause an exceedance of the PM NAAQS. The comments noted that in doing so, it is important to consider "micro- and middle-scale" impacts, meaning impacts within a distance of several meters to several city blocks from a source. The comments suggested that the District should consider potential impacts of such sources with emissions as low as 10 pounds per day (the level below which most permitting requirements do not apply). The comments provided some modeling analyses from hypothetical PM sources emitting at rates below the NSR "major" source threshold suggesting that in some cases, such sources could have the potential for causing a NAAQS exceedance.

Response: Staff agree that it would be appropriate to require smaller sources to demonstrate that they will not cause any exceedance of a NAAQS, even at facilities that do not exceed the "major" facility thresholds at which such a demonstration would be required under the PSD program (100 or 250 tons per year in emissions of any regulated air pollutant). Staff are therefore adding a requirement that any new or modified source at any facility, regardless of the facility's size, must make such a demonstration where it will result in any significant emissions increase of any criteria pollutant. (A "significant"

increase for these purposes is defined using the established NSR significance levels under the definition set forth in Section 2-2-227 in the second draft.) Any new source or modification that will result in a significant increase in any criteria pollutant will be required to demonstrate through modeling that it will not cause or contribute to a NAAQS exceedance. This demonstration will be made using the same modeling and related procedures as those used for the demonstration made for PSD permitting applicable to sources over the PSD "major source" threshold. The demonstration will be required for all criteria pollutants, both attainment pollutants and non-attainment pollutants.

Staff believe that requiring such a demonstration for significant increases is important, even at non-"major" facilities, because significant increases that could interfere with attainment and maintenance of the NAAQS need to be identified and avoided even if the facility does not exceed a "major" facility emissions threshold. All exceedances of the NAAQS count towards the Bay Area's attainment status, regardless of the size of the facilities that cause them, and their impacts on the public health and welfare are the same. Moreover, requiring such a demonstration will help the District establish for EPA's SIP review that the District's NSR program will ensure that no new or modified source "will interfere with attainment or maintenance of a [NAAQS]," as is required under 40 C.F.R. Section 51.160(a)(2) and (b)(2). These requirements are applicable to the District's NSR program in general, and not just to "major" facilities. EPA Region IX staff have told District Staff that these requirements in Section 51.160(a)(2) and (b)(2) need to be addressed in order for EPA to approve the District's program.

Requiring such a demonstration for all significant emissions increases is the most appropriate mechanism to address these concerns. Applying this requirement to significant increases will encompass the majority of all the emissions increases from new and modified sources within the Bay Area, without requiring overly burdensome permit review requirements for the smallest and most inconsequential sources. New and modified sources that will result in less-than-significant emissions increases are considered to be *de minimis* and would not be subject to this requirement. Such small sources are numerous but they collectively make up a relatively small contribution to the region's total emissions, and so requiring the demonstration for all such sources would not be warranted given the additional administrative burdens of doing so. Basing the requirement on the NSR significance levels is also consistent with how EPA's NSR program treats a number of air quality analysis requirements (e.g., PSD air quality impacts).

Finally, regarding the point noted in the comments about the importance of considering impacts within a distance of a few meters to a few blocks of an emissions source, staff agree that it is important to consider localized impacts of this nature. The demonstration that is being added in the second draft amendments requires such an evaluation, using the same modeling analysis requirements that apply for PSD permitting for "major" facilities. This demonstration will address the potential for the new source or modification to cause a violation of the NAAQS at all locations, including locations close to the source and those that are more distant.

D. Explicitly Defining PM_{10} and $PM_{2.5}$ to Include Condensable Particulate Matter

As noted above, the proposed amendments specify explicitly in the definition of particulate matter (PM_{10} and $PM_{2.5}$) that particulate matter includes "condensable" particulate matter emissions – that is, emissions that are in the gaseous phase when emitted but condense at ambient temperatures to form particulate matter. Historically, the District's particulate matter definition did not specify whether the condensable portion should be included. As a result, the condensable portion oftentimes has not been included when permitting particulate matter emissions (although in many cases it has). EPA has recently updated its requirements for NSR permitting programs and now requires them to specify explicitly that the condensable portion must be included. The first draft included language in the definitions of PM_{10} and $PM_{2.5}$ to specify that the condensable portion would be included when applying these terms. This language raised a number of important issues.

1. Compliance with existing PM permit limits (established before the regulatory changes):

Comment I.D.1. – Request for Clarification on How Prior Regulatory Determinations Will Be Treated Under the Revised PM Definitions: A number of commenters stated that the regulations should specify what will be done with existing permit limits and other regulatory determinations that were established taking into account only the filterable portion. For example, if a source has a PM emissions limit that was established assuming that PM would be measured using only filterable PM emissions, commenters stated that the District should specify that compliance with that permit limit going forward should continue to be based on filterable PM emissions only. To do otherwise, these commenters stated, would have the practical effect of changing the existing permit limits. Some commenters suggested adding language similar to what EPA used in 40 C.F.R. § 52.21(b)(50)(vi).

Other similar comments concerned emissions baselines used for determining the amount of an emissions increase or decrease from a modification. After the new amendments take effect, the commenters asked, will the baseline against which future emissions increases and decreases are measured include the condensable portion, even for a source where PM determinations have been made in the past based only on filterable emissions? In addition, a baseline period may span the date on which the amendments take effect, so the regulations need to clarify whether such a source's baseline emissions during this period are calculated using just filterable PM emissions or both filterable and condensable emissions.

Response: Staff agree that these issues need to be addressed explicitly in the regulations, and have added language to do so. The new provisions added to address these issues are Sections 2-1-604 and 2-1-605 in the second draft amendments.

The guiding principle that Staff have used in addressing these issues in the proposed amendments is that when the new provisions take effect, what has taken place before that date will be treated as past history and will not be revisited to address condensable emissions any differently. The new provisions will only be applied prospectively going forward after the date they take effect. They will not be applied

retroactively to any permit conditions or other regulatory determinations that may have been made in the past taking only the filterable portion into account. In essence, "the books are closed" on such prior historical determinations, and the District will not reopen such determinations retroactively to reevaluate them based on condensable emissions.

Staff are proposing to apply this general principle in specific situations as follows.

With respect to determining compliance with permit limits that were established in the past under Regulation 2, Staff are adding language to clarify that compliance with such conditions in the future will be determined on the same basis as applied when the permit condition was imposed. As noted above, permit conditions have most often been based only on the filterable portion of PM emissions, and where that is the case compliance with such conditions in the future will continue to be based on the filterable portion only. There have been cases where existing PM emissions limits have been based on condensable PM emissions as well, however, and in those cases compliance will continue to be determined taking the condensable portion into account. However an existing permit limit was established, the amendments will not reopen that past history; the permit limit will continue to apply as it was intended when it was adopted. These principles are codified in proposed Section 2-1-604 in the second draft of the proposed amendments.

With respect to regulatory determinations, such as whether a source's PM emissions were at a level that would trigger some permitting requirement, those past determinations will similarly not be reopened when the proposed amendments take effect. Thus, where a permit was issued for a source in the past and the District determined that it was not subject to the District BACT requirements because its filterable PM_{10} emissions were less than 10 pounds per day, the District will not go back and reopen that determination and require BACT retroactively if the source's total PM_{10} emissions (filterable + condensable) are greater than 10 pounds per day. Similarly, where a permit was issued to a facility in the past that was subject to PM_{10} offsets requirements, and the facility provided offsets for its PM_{10} cumulative increase that was calculated considering only the filterable portion, the District will not go back and reopen that cumulative increase determination and change the amount of offsets that were required. What has been established in the past (before the effective date of the amendments) is past, and these historical regulatory determinations will be considered final and will not be reopened when the amendments take effect.

For all new regulatory determinations made in the future, after the effective date of the amendments when the new definitions will become applicable, both the filterable and condensable portions of PM_{10} and $PM_{2.5}$ must be counted for all purposes. Thus, new permit limits on PM_{10} and $PM_{2.5}$ will be based on both portions, in keeping with the new definitions that are being proposed, and sources will need to include both portions when determining compliance with such limits. In the example above regarding the source that was not subject to BACT because its filterable PM emissions were below 10 pounds per day, when that source is modified a new determination will need to be made regarding its PM emissions taking into account condensable emissions as well, if the total PM emissions are over 10 pounds per day then the source will be subject to BACT (assuming an emissions increase that triggers BACT under 2-2-301, of course). And in the example above regarding the facility that provided offsets for a cumulative

increase calculated based on filterable emissions only, for future emissions increases it will need to calculate the amount of such new increases based on both filterable and condensable emissions and provide offsets accordingly.

These principles are codified in proposed Section 2-1-605 in the second draft of the proposed amendments. The following descriptions explain in more detail how these principles will work in some specific permitting situations that commonly arise. These procedures are also illustrated in examples of how the provisions would apply at actual facilities set forth in the Appendix at the end of this document.

- **Determining the amount of an emissions increase or decrease:** A number of provisions in Regulation 2 depend upon the amount of an emissions increase or decrease resulting from a change at a source. These include the definition of "modification" in Section 2-1-234 and the emissions increase/decrease calculation procedures in Section 2-2-604, among others. Determining the amount of an emissions increase or decrease from a change requires comparing the emissions before the change and emissions after the change. Under the proposed amendments, both the emissions before the change and the emissions after the change will be determined including both the filterable and condensable portions of the PM emissions, to ensure that increases and decreases are always calculated based on an "apples-to-apples" comparison.[6] This is an important principle, because one cannot accurately compare emissions before and after unless one uses the same definition of emissions for the "before" measurement and the "after" measurement.

  Determinations of the amount of an increase or decrease made after the effective date of the proposed amendments will use the new definitions for all purposes, even if a portion of the "before" emissions occurred before the effective date. Specifically, if an emissions increase or decrease from a change to a source is made in comparison to the source's emissions over a three-year baseline period, and part of that baseline period is before the effective date of the proposed amendments, the determination will take into account both the filterable and condensable portions during the entire baseline period – including the portion of the baseline period before the effective date. This approach will ensure that emissions increases and decreases reflect a true "apples-to-apples" comparison under all circumstances.

- **Determining whether a source is subject to BACT under Section 2-2-301:** BACT is required for sources with a PTE of 10 pounds or more per day (for new sources and for modifications with any increase in emissions). Under the proposed amendments, this 10 lb/day threshold must be applied including both filterable and condensable PM emissions. In some cases, sources that

[6] Note that some provisions in District regulations look to increases in potential emissions and some look to increases in actual emissions. These principles will apply in all such cases. Regardless of whether potential emissions or actual emissions are being measured (or whether the comparison involves both actual and potential emissions), all emissions rates used in measuring emissions increases and decreases will include both the filterable and condensable portions. In all such cases, both the "before" emissions and the "after" emissions will be calculated using both portions, to ensure an "apples-to-apples" comparison with respect to how PM_{10} and $PM_{2.5}$ are defined and measured.

were treated as being under 10 lb/day historically based only on filterable PM emissions may find that they are subject to BACT the next time that they are modified, if their PM emissions are over 10 lb/day when including the condensable portion as well. Section 2-2-301 would apply to such sources at such time as the source is modified and becomes subject to NSR requirements (assuming there is an increase in PM emissions from the modification and all other elements of Section 2-2-301 apply).

- **Determining whether a Facility is subject to offset requirements under Section 2-2-303:** BACT is required for facilities with a PTE of 100 tons per year or more of PM_{10} (and under the proposed amendments for $PM_{2.5}$). Under the proposed amendments, this 100 tpy threshold must be applied including both filterable and condensable PM emissions. In some cases, facilities that were historically treated as being under 100 tpy of PM_{10} based only on filterable PM emissions may find that they are over the 100 tpy threshold when the condensable portion is included. Section 2-2-303 would require such facilities to offset their cumulative increase for PM_{10} and $PM_{2.5}$ the next time they apply for a permit for a new source or modification at the facility that triggers NSR. Such facilities would not need to provide offsets immediately when the amendments become effective, but the next time the District issues an NSR permit for the facility that is subject to Section 2-2-303, the facility would need to provide offsets for the cumulative increase in PM_{10} and $PM_{2.5}$ emissions at the facility per the terms of Section 2-2-303.

- **Determining the amount of cumulative increase in PM_{10} and $PM_{2.5}$ emissions at a facility subject to the Section 2-2-303 offsets requirements:** Facilities that exceed the applicability threshold in Section 2-2-303 must provide offsets for the cumulative increase in PM_{10} emissions and (under the proposed amendments) in $PM_{2.5}$ emissions back to the cumulative increase baseline date.

  For PM_{10}, the cumulative increase baseline date is April 5, 1991. A facility's cumulative increase in PM_{10} is therefore the sum of all the increases in PM_{10} emissions authorized by permits issued for the facility back to 1991. Cumulative increases associated with permits issued in the past, before the effective date of the amendments, were determined in accordance with the existing definition and were most often based on filterable PM_{10} emissions only. Any such prior cumulative increases associated with past permits that were determined based only on filterable emissions will not be reopened or recalculated to include condensable emissions. Nor will any offsets provided in connection with such prior permits be reopened or recalculated. Such prior history will be considered final for all future regulatory purposes. Any new cumulative increases associated with new permits issued after the effective date of the amendments will be calculated based on both the filterable and condensable portions, however, consistent with the new definitions. Going forward, additional cumulative increase associated with new permits will be based on both filterable and condensable, and offsets will have to be provided for that amount of cumulative increase as required under Section 2-2-303.

For $PM_{2.5}$, the cumulative increase baseline date will be the effective date of the amendments, and so the situation will be less complicated. A facility's cumulative increase for $PM_{2.5}$ will be the cumulative increase associated with all permits issued after the effective date of the amendments, and all such cumulative increases will be determined based on both filterable and condensable in accordance with the new definitions.

- **Determining the amount of emission reduction credits available for PM_{10} and $PM_{2.5}$ emission reduction:** If a facility undertakes an enforceable reduction in emissions that satisfies the applicable requirements, it can take credit for such reductions either (i) by crediting such reductions against an increase in PTE from a new or modified source as a contemporaneous on-site emission reduction credit, which reduces the amount of cumulative increase for which offsets (banked credits) need to be provided; or (ii) by banking the reduction for future use to offset future cumulative increases at the same facility or at a different facility. The regulatory determination of how much credit should be given for such reductions – that is, the amount of the emission reduction credit available – is made at the time of the permit application in which the credit is sought. For a contemporaneous on-site emission reduction credit, the credit is sought and the determination is made at the time the facility applies for a permit for a new/modified source at the facility and wants to use the contemporaneous on-site emission reduction credit to reduce the cumulative increase associated with the new/modified source. For a banked credit, the credit is sought and the determination is made at the time the facility submits a banking application to bank the emission reduction credit.

  After the effective date of the proposed amendments, all such determinations will be made using the revised definitions and will be required to take into account both the filterable and condensable portions of the PM emissions. These are regulatory determinations about the amount of an emission reduction credit that can be granted that are being made after the new definitions are in effect, and so they will be made using the PM measurements required by those definitions. The amount of emission reduction credit will be based on the source's emissions during the baseline period,[7] before the source was shut down or otherwise reduced its emissions (and will be subject to any RACT adjustment required under Section 2-2-603), and such emissions will be determined taking into account both filterable and condensable emissions. Note also that both filterable and condensable emissions will be counted for the entire baseline period, even if the baseline period extends back before the effective date of the regulations, in order to ensure an accurate "apples-to-apples" comparison.

- **Title V "Major Facility Review" Applicability:** If a facility has historically been treated as not being subject to Title V permitting requirements because it was not a Title "Major Facility" based on an assessment of its PM emissions being below the 100 tpy "Major Facility" threshold that took into account only filterable emissions, the District does not intend to revisit that

[7] The baseline periods for contemporaneous on-site emission reduction credits and for banking of credits are set forth in Section 2-2-603.

historical regulatory determination. That is, the District does not intend to treat such a source's historical operation without a Title V permit as having violated any Title V requirements where the District determined that no Title V permit was required based on filterable emissions only. However, going forward after the effective date of the proposed amendment, if the District determines that the facility is over the 100 tpy Major Facility threshold when both filterable and condensable emissions are included, the District will require the facility to apply for and obtain a Title V permit. The "books will be closed" with regard to any such past history before the effective date of the regulations, but for future purposes after the effective date any regulatory determinations must be made based on both filterable and condensable emissions. This includes ongoing determinations of whether a facility requires a Title V permit to operate going forward.

2. Treatment of Existing PM Banked Emission Reduction Credits:

Staff received a number of comments regarding how banked PM_{10} emission reduction credits, which have usually been calculated using only filterable PM emissions, will be treated. Commenters were concerned in particular with (i) how existing PM credits based on filterable emissions will account for the fact that condensable emissions are also being included in the definition of particulate matter; and (ii) how existing PM_{10} credits will be treated with respect to reflecting the fact that the PM_{10} emission reductions that created the banked credits also involved a certain amount of $PM_{2.5}$ emission reductions as well. These issues are discussed below.

Comment I.D.2.a. – The Mechanics of Updating Existing Banked PM Credits: The District received a number of comments on the procedures Staff proposed to determine the amount of $PM_{2.5}$ emission reductions that can be credited to an existing banked PM_{10} credit and to determine the amount of reductions reflecting both filterable and condensable emissions. Some of the comments inquired about how the District will "reconstruct" the condensable portion (the "back half") of existing banked credits. One particular concern raised was what kind of information the District will require to demonstrate what the condensable emissions were from the source that was shut down to create the credit, and whether the District will accept best available data to support such a demonstration. Other comments noted that the provisions that Staff proposed in Section in 2-4-603 regarding the evaluation of the amount of reductions that can be credited including condensable addressing only the PM_{10} element of such credits; these comments stated that the provision should address the condensable portion of the $PM_{2.5}$ fraction of existing banked credits as well.

Response: Staff are proposing provisions in Regulation 2-4 to address these issues. Specifically, Section 2-4-216 creates a procedure for holders of PM_{10} credits to apply to have the corresponding $PM_{2.5}$ fraction specified and to have the amount of credit specified including condensable PM. Section 2-4-602 specifies the procedures for establishing the filterable $PM_{2.5}$ portion of a credit's filterable PM_{10} emissions, and Section 2-4-603 specifies the procedure for determining the condensable emissions. The amount of $PM_{2.5}$ and the amount of condensable emissions will be determined based on the most reliable information that is available for each credit for which an update is sought.

With respect to the types of information required in order to undertake the update calculations, the same rule of reason will apply as applies for all District permitting regulations. Information must be sufficiently reliable in order that the District can say with reasonable certainty how much $PM_{2.5}$ emissions are involved and how much filterable and condensable emissions are involved. District Staff will be flexible in determining what types of information will suffice in each case, as long as the information meets general minimum engineering standards for reliability. What will be required in each specific case must necessarily be made on a case-by-case basis.

With respect to the condensable portion of $PM_{2.5}$ credits, there are no existing $PM_{2.5}$ credits in the District's banking system and so there are no existing $PM_{2.5}$ credits to update. When new $PM_{2.5}$ credits are created after the effective date of the proposed amendments, they will be created based on both filterable and condensable emissions at that time. Moreover, condensable emissions are generally very small and are both PM_{10} and $PM_{2.5}$, so when a PM_{10} credit is updated, the condensable portion is the same for PM_{10} as for $PM_{2.5}$.

Comment I.D.2.b. – Timing for Updating the Existing Inventory of Banked PM Credits: Several commenters commented on how the process of updating the existing inventory of PM_{10} credits will occur. These commenters were concerned that regulated entities that may be considering new projects that will result in increases in PM emissions need to have a good understanding of the market for PM credits. The commenters stated that in order for that to happen, all of the existing PM credits need to be formally updated so that prospective purchasers can know exactly how many PM_{10} and $PM_{2.5}$ credits are available (as defined including condensable emissions). The commenters were concerned that some current credit-holders may not request an update of their existing banked PM_{10} credits, which would mean that the regulated community would not have an understanding of what the market for $PM_{2.5}$ credits (and for updated PM_{10} credits, including condensable emissions) will look like. The commenters suggested that the District should take it upon itself to update existing PM_{10} banked credits – or at least of the credits held by the largest current PM_{10} credit-holders – so as to provide an idea of cost and availability of credits to the market. On a related issue, one commenter stated that some thought and consideration needs to be given to what will happen if banked credits are not available for purchase.

Response: Staff considered the market need for timely updating of PM credits and have built in a market-based mechanism to encourage credit-holders to apply to the District for updating. Specifically, if holders of banked credits are in the market for selling credits, it is strongly in their interest to have their credits updated so that they can market them. An existing PM credit that has already been updated to reflect its PM_{10} and $PM_{2.5}$ fractions, with condensable PM emissions included, will be far more marketable than a credit that has not been updated. Staff therefore expect that the holders of all existing marketable PM_{10} credits will apply to have those credits updated in a timely manner. If any credit holders are not interested in selling their credits, they will have less of an incentive to have their credits updated; but if they are not interested in selling them, those credits are not in the market anyway and having them updated does not help prospective purchasers who are looking for offsets for their projects. (Although staff notes that even credit holders who are not interested in selling will have an incentive to have their existing credits updated, in order that they can know with certainty their PM_{10} and $PM_{2.5}$ fractions, with condensable PM emissions included, which will help the holders in planning

any future activities that may require offsets.) Staff are therefore not proposing to create an affirmative obligation on the District to conduct any certain number of credit updates within any specified time period, and instead are proposing to set up a system whereby credit holders will have the incentive to approach the District to have their credits updated. Staff expect that this system will have the same effect, resulting in timely updates of existing marketable credits so that prospective buyers and sellers have the information they need to make sound pricing decisions for credit transactions.

Regarding what happens if a facility owner wants to undertake a project for which offsets are required but for which it cannot purchase sufficient banked credits, staff do not anticipate that outcome as there are currently a substantial amount of existing PM_{10} credits in the District's bank and the bulk of these credits are expected to be usable for their $PM_{2.5}$ credit as well. Hypothetically, however, if such a situation did arise and banked credits were not available for purchase, the other alternative would be to shut down some existing PM source to create credit (either at the same facility as the new project being built, which will generate a contemporaneous onsite emission reduction credit; or at some other facility, which can be banked and used to satisfy offset requirements). This is a fundamental principle inherent in the basic NSR concept of offsets (i.e., "no net increase" in emissions of non-attainment pollutants from major sources), and is not unique to $PM_{2.5}$. Moreover, it is an inescapable consequence of EPA's offset requirements for Non-Attainment NSR, and it is not something that the District can eliminate from its NSR program. But again, staff do not anticipate this situation arising in practice.

Comment I.D.2.c. – Use of a PM Credit for Both Its PM_{10} Value and $PM_{2.5}$ Value: A commenter suggested that the District should clarify that the same banked credit can be used for both its PM_{10} value and its $PM_{2.5}$ value. The commenter suggested that staff include some examples in the staff report to demonstrate how this would work.

Response: Staff agrees that it is important that this point be clearly understood by the public and by the regulated community. For any new increase in PM_{10} emissions, a certain fraction of the PM_{10} emissions will be $PM_{2.5}$, because $PM_{2.5}$ is a subset of PM_{10}. By the same token, for any decrease in PM_{10} emissions, a certain fraction of the PM_{10} emissions will be $PM_{2.5}$. If there is an increase in PM_{10} and $PM_{2.5}$ in this manner, both the PM_{10} and $PM_{2.5}$ elements of that increase can be offset by the same emission reduction, provided that the reduction involves at least as much PM_{10} and $PM_{2.5}$ as the increase.

As an example, take a PM emission source where the $PM_{2.5}$ fraction is 80% of the PM_{10}. An increase in 10 tons of PM_{10} emissions will therefore involve 8 tons of $PM_{2.5}$ emissions. Such an increase could be offset by shutting down a similar source that also has an 80% $PM_{2.5}/PM_{10}$ ratio. Shutting down such a similar source with 10 tons of PM_{10} emissions and 8 tons of $PM_{2.5}$ emissions would offset both the PM_{10} and $PM_{2.5}$ elements of the emissions increase. This reduction at one source would thus satisfy both elements of the PM offsets requirements. The same principles hold true if the shutdown is reflected in a banked credit. A single banked credit reflecting such a shutdown could be used to offset the new increase in both $PM_{2.5}$ and PM_{10}, as long as the banked credit reflects 8 tpy of $PM_{2.5}$ reductions and 10 tpy of PM_{10} reductions.

A related question concerns the amount of PM credit remaining if the PM_{10} value is used up but not all of the $PM_{2.5}$ value is used, or vice-versa. Because both the PM_{10} value and the $PM_{2.5}$ value reflect the same emissions reduction – the two values simply reflect different fractions of the same emissions stream – it is impossible to use up one fraction and not use the other fraction as well. Once the credit is used up, it is used up for all purposes and cannot be used again for any "unused" value in the PM_{10} or $PM_{2.5}$ fraction. By the same token, if only a portion of the total credit value is used, the same pro-rated portion of both the PM_{10} and $PM_{2.5}$ fractions is used. Thus, in the example above with a PM credit that reflects 10 tpy of PM_{10} and 8 tpy of $PM_{2.5}$, say that a facility wanted to use this credit to offset a 5 tpy emissions increase that was all PM with a diameter of 8 microns – i.e., an increase of 5 tpy of PM_{10} but zero $PM_{2.5}$ (because none of the PM is smaller than 2.5 microns). In that case, the facility would be using 5 of the 10 tons of PM_{10} credit, which is half of the value of the credit. Both the PM_{10} and $PM_{2.5}$ fractions would have their value reduced by 50%, since half of the emission reduction that created the credit has now been accounted as reflected by the new emissions increase. After the transaction, the facility would be left with a credit worth 5 tpy of PM_{10} and 4 tpy of $PM_{2.5}$, a 50% reduction in both values.

Comment I.D.2.d. – Fees for Updating Banked PM Credits: A commenter questioned why the fees for updating of an existing banked PM credit should be the same as the fees for banking the credit in the first place. The commenter suggested that the conversion process will require less staff time and thus should carry a lower fee.

Response: The fees for updating existing PM banked credits are the same as the fees for banking credits in the first place because the amount of work involved in evaluating an update application will be similar to the amount of work involved in evaluating the initial application for the creation of the credit in the first place. This is because the update process may require a great deal of research though multiple past banking applications. Staff have reached this conclusion based on experience researching banking applications as part of the District's efforts to demonstrate federal equivalency of its offset program, per Regulation 2-2-423. A given banking certificate may have been re-issued multiple times, though several different owners. To evaluate the update application, Staff have to trace the credit back to the original issuance in order to determine the type of source that generated the original credits. In the case where several sources generated the original credits, Staff will also have to re-create the calculations that created the initial credits to divide the credits among the various source types, prior to applying the appropriate conversion factors for $PM_{2.5}$. The application fees for an update application are intended to account for the District Staff resources that the update process will require.

Comment I.D.2.e. – Language Clarification: A commenter suggested that the language on PM_{10} conversion should state that the conversion is "PM_{10} to PM_{10} and $PM_{2.5}$", not just "PM_{10} to $PM_{2.5}$".

Response: Staff agree with this clarification. It is reflected in the second draft of the amendments.

3. Particulate Matter Test Methods

Comment I.D.3. – Use of Alternate PM Test Methods When Methods 201A/202 Cannot Be Used: Commenters suggested that the regulations should provide flexibility in selecting which PM test/measurement methods to use. The first draft that staff published required EPA Methods 201A and 202 to be used, and commenters suggested that the regulations should also allow other test methods to be used "with approval from the District". The reasons that the commenters gave fall into two categories. First, commenters stated that there are some situations in which EPA Methods 201A and 202 cannot be used for technical reasons, for example where water is present or where stack gas temperatures exceed 500°F. EPA's test methods themselves state that the methods cannot be used in such situations. Commenters stated that the District needs to provide flexibility to use another test method when Methods 201A and 202 are not appropriate. Second, commenters cited concerns about the accuracy and repeatability of Methods 201A and 202 at low concentrations, and about the costs that may be associated with using such methods. These commenters criticized Methods 201A and 202 as appropriate test methods even in situations where the Methods are applicable. The commenters stated that the District should provide flexibility to use other test methods instead. These commenters added that providing such flexibility will also allow more reliable test methods to be used if they become available.

Response: With respect to the first point, about situations where EPA Methods 201A and 202 cannot be used because they are not appropriate given exhaust gas conditions, Staff agree with the commenters that an alternative method should be provided for cases where such methods cannot be used for technical reasons. Staff have added language in the second draft amendments to this effect. The additional language explicitly limits such alternative methods to situations where such methods are inapplicable because of the physical characteristics of the emissions being tested, such as the situations identified by the commenters where the emission stream's water content or temperature is too high. This language does not give a facility the option of using a different method where Methods 201A and 202 can be used.

With regard to the second point, about flexibility to use different testing methods even where Methods 201A and 202 is technically appropriate, Staff disagree that it would be appropriate to allow regulated entities to opt to use a different test method. EPA has established that Methods 201A and 202 must be used for purposes of determining combined (filterable and condensable) particulate matter emissions. EPA would not be able to approve a rule that allows the District to depart from these test methods (other than situations where such methods cannot be used for technical reasons, as addressed above). Staff acknowledge that there have been some concerns expressed about the burdens and difficulties associated with using such test methods, but EPA has considered these concerns and has made a determination that Methods 201A and 202 should be used to determine combined particulate matter emissions.

4. Other Issues Regarding Condensable Particulate Matter Emissions

Comment I.D.4.a. – No Need to Reference Size of Condensable PM Emissions: Commenters noted that there is no need to reference particle size for the condensable portion, since all condensable particulates are of very small size and are well below both the 10 micron and 2.5 micron size used to define PM_{10} and $PM_{2.5}$.

Response: The commenters' observation is correct. The second draft removes the reference to condensable size in these definitions. PM_{10} and $PM_{2.5}$ include condensable particulates without regard to size. This tracks EPA's treatment of this issue in its PM_{10} and $PM_{2.5}$ definitions.

Comment I.D.4.b. – Regulating Precursors Does Not Constitute "Double-Counting" of Emissions: Commenters expressed concern that the regulations would be "double-counting" emissions by regulating PM precursors both as precursors and as pollutants in their own right. For example, the District has long regulated NOx for ozone purposes, and now will be regulating NOx as a PM precursor as well. The concern expressed was that this would lead to "double-counting" of NOx emissions, i.e., that the same NOx emissions would be regulated twice because they would be counted towards NOx emissions and also towards $PM_{2.5}$ emissions.

Response: The proposed amendments will not subject any emissions to "double-counting". Whenever emissions are measured for purposes of regulatory applicability, any emissions from a source will be counted only once for determining whether a regulatory requirement applies. It is true that some pollutants are now being regulated for multiple reasons – for example, because they are of concern as precursors and also because they are of concern as pollutants in their own right – but the regulations that are being applied will count such emissions only once. Taking the NOx example, the District treats NOx emissions as an important pollutant and requires sources to use BACT to control NOx emissions over 10 pounds per day for a number of reasons, including NOx's role in ozone formation and NOx's role as a $PM_{2.5}$ precursor as well as the fact that NO_2 is a criteria pollutant. If a source emits more than 10 pounds of NOx per day, the District will require the source to use BACT to control those NOx emissions for all of those reasons. But in determining whether the NOx emissions are above this 10 lb/day threshold, the District will count the NOx emissions only once. If actual NOx emissions are only 8 lb/day, the District will not count them twice, once because of the ozone concern and a second time because of the $PM_{2.5}$ concern, to give 16 lb/day of emissions and make the source subject to BACT.

Comment I.D.4.c. – Deferral of Implementation of New Particulate Matter Test Methods: Commenters stated that the District should build in some lead time before the new PM definitions take effect. These commenters stated that it will take some time to engineer and implement $PM_{2.5}$ testing using the specified EPA methods. One reason cited concerned potential lack of stack access and refractory configuration issues that may need to be worked out. Another issue concerned test accuracy issues. Commenters stated that EPA's testing methods can produce a wide range of results, and that it is important that we better understand test accuracy issues before regulating the condensable portion of PM emissions. These commenters requested that the District build in a specified delay period before the regulations will start to include condensable PM emissions.

Response: Staff disagree that the regulations should build in a delay period before the amended PM definitions take effect and require that the condensable portion of PM emissions to be included. Staff are planning to propose an effective date for the amendments that will occur when EPA approves them as consistent with federal NSR requirements. EPA's approval will not occur until after they are adopted by the District's Board of Directors, after they are approved by ARB and submitted to EPA, and after EPA has had a chance to review and consider them, all of which will take a certain period of time during which affected facilities can begin any preparations necessary to implement the new definitions. Moreover, EPA's federal New Source Review permitting requirements in 40 C.F.R. Part 51, Appendix S and 40 C.F.R. section 52.21 already require facilities in the Bay Area to include condensable emissions for PM permitting, so affected facilities are already subject to these requirements even before the amendments to District regulations become effective. Finally, EPA's requirements for NSR programs do not provide for any such delay period – they require PM determinations to be made including the condensable portion immediately in order to be approvable. For all of these reasons, staff are not proposing any delay period before the definitions of PM_{10} and $PM_{2.5}$ will require condensable particulate matter emissions to be included.

II. ADDING PERMITTING REQUIREMENTS FOR GHGS

The second principal purpose of the updates to Regulation 2 is to add greenhouse gases (GHGs) to the list of pollutants that are regulated under Regulation 2's permitting programs. EPA started regulating GHG emissions starting January 2, 2011, when its Light Duty Vehicle Rule went into effect and started imposing GHG emissions limitations on new cars and trucks. Now that GHGs are "subject to regulation" under the Clean Air Act, GHG emissions from stationary sources must be included in NSR and Title V permitting requirements. The proposed amendments will add GHG requirements for the District's NSR and Title V programs in order to meet EPA's requirements.

For Title V, the proposed amendments will add GHGs by including them within the definition of "Regulated Air Pollutant" for purposes of the Title V program (along with related implementation provisions). For NSR, GHGs are not a non-attainment pollutant and so they fall within the PSD element of the NSR program. As such, they will be included in the District PSD program that Staff are proposing, which is addressed in detail in Section III below. This document addresses general issues regarding the proposal to add GHGs to these regulatory programs in this section; issues specific to PSD permitting are addressed in Section III.

Comment II.1. – Use of "Tailoring Rule" Applicability Thresholds: The District received several comments regarding the proposal to incorporate the regulatory thresholds effective under EPA's "Tailoring Rule", which (generally speaking) make facilities subject to NSR and Title V permitting requirements if their GHG emissions are over 100,000 tpy CO_2e. Some comments supported the proposal to use the Tailoring Rule thresholds. Others stated that the District should be as stringent as possible in its permitting requirements for GHGs and should start imposing permit requirements (such as BACT) at lower thresholds. One commenter also suggested that the District should establish a daily threshold as well as an annual threshold for triggering such requirements.

Response: Staff continue to believe that using the Tailoring Rule thresholds is the most appropriate approach to phasing in GHG regulation under the NSR and Title V programs. Those thresholds reflect a careful and considered balance between the benefits of bringing the most significant sources of GHG emissions into these programs first and the drawbacks that would result from flooding these permitting programs with thousands of permit applications for smaller sources that collectively are not significant contributors to the Bay Area's emissions inventory. Staff note that this approach has recently been reaffirmed by EPA in its proposal for "Step 3" of the Tailoring Rule, in which EPA further considered whether these thresholds continue to be appropriate. EPA is proposing in Step 3 to keep these thresholds at the same levels, finding that the same considerations that justified them initially continue to be applicable.[8] Staff also note that although some commenters suggested that the District should implement these permitting requirements at lower thresholds, none of the commenters suggested that some other thresholds would strike a better balance between the benefits of regulating the largest sources first and the drawbacks inherent in the administrative burdens of regulating smaller sources at this time. Staff are therefore not proposing anything different in the second draft with respect to GHG thresholds.

With respect to establishing daily emissions thresholds as well as annual emissions thresholds, the PSD and Title V programs have always looked to annual emissions to determine whether a facility is a "major" emitter and should be subject to permitting requirements. This practice arises from Congress' judgment in the Clean Air Act that annual emissions are the best way to assess whether a facility is a major contributor to air quality problems. Staff are not proposing to depart from this practice with respect to the "major" facility thresholds for GHGs. Moreover, GHG emissions and global climate change long-term problems that depend more on long-term emissions that occur day in and day out than what happens on any particular day. It is more appropriate to target these permitting programs towards facilities that have large emissions over the course of the entire year, even if they may not have especially high emissions on any particular day. By the same token, there is relatively little to be gained (at least at this stage) by targeting sources that may not have any significant emissions over the course of a year but which may have high emissions on one particular day. Staff are therefore not proposing to add a daily emissions applicability threshold for these permitting programs.[9]

Comment II.2. – "Automatic Invalidation" Provision for GHG Permitting Requirements: A number of commenters noted that there are a several legal challenges pending to EPA's "Tailoring Rule".[10] These

[8] *See* Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule Step 3, GHG Plantwide Applicability Limitations and GHG Synthetic Minor Limitations, Proposed Rule, 77 Fed. Reg. 14,226 (March 8, 2012).

[9] The commenter who suggested a daily GHG threshold cited the goals of the 2010 Clean Air Plan and in particular Further Study Measure 9, which addressed considering GHG impacts when making BACT determinations for criteria pollutants. Staff agree that BACT determinations for criteria pollutants should take into account considerations such as GHG impacts, and are incorporating that flexibility into the proposed amendments. But that effort relates to how BACT is defined, not to the thresholds for GHG permitting. Using an annual threshold, established at EPA's Tailoring Rule levels, is fully consistent with supporting GHG considerations in BACT determinations.

[10] With respect to the reference to challenges to the "Tailoring Rule", District staff read these comments as referring to the challenges to EPA regulation of GHGs under the Clean Air Act and its treatment of GHGs as

commenters suggested that the District should include provisions in the NSR and Title V programs in Regulation 2 to provide that the permitting requirements for GHGs will cease to be effective if those challenges are successful and a reviewing court invalidates EPA's regulation of GHGs. This type of provision has been referred to as an "automatic invalidation" provision, meaning that it will automatically invalidate the GHG permitting requirements in the event of such a judicial determination, without any need for further action by District Staff or by the District's Board of Directors.

Response: Staff considered whether to include such an "automatic invalidation" provision for GHGs but are not inclined to do so. The primary reason is that there are a number of legal challenges pending, which assert a number of different arguments objecting to EPA's authority to regulate GHGs, as well as to the manner in which EPA has chosen to exercise that authority. It is impossible to predict with any certainty how any one of these challenges may be resolved, let alone what the total impact will be once the courts have finally adjudicated all of them. Accordingly, there is no way to know with any certainty at all how exactly the regulatory landscape could potentially be altered as a result of these challenges. The result could be a blanket approval of EPA's regulatory efforts in their entirety, a blanket invalidation of those efforts in their entirety, or something in between in which some parts of EPA's program are upheld while others are invalidated. Moreover, the courts could remand certain elements on procedural grounds, meaning that EPA would have to undertake additional rulemaking proceedings but could end up with exactly the same substantive policy determinations. For all of these reasons, it is impossible to try to predict what the future may hold and try to craft regulatory language that will anticipate all potential scenarios that could potentially arise. Rather than attempt to do so and risk unintended consequences if these cases result in an outcome that was not anticipated, staff believe that it is preferable to wait and see how things actually turn out and then decide at that point how best to respond. Should the courts invalidate or otherwise undermine EPA's authority to regulated GHGs, it may well be appropriate to revisit these programs and eliminate the GHG requirements. On the other hand, should the outcome of the legal challenges be something other than a blanket invalidation of EPA's authority, some other response may be more appropriate.[11] Rather than try to predict the future,

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regulated under NSR and Title V. The so-called "Tailoring Rule" referred to in the comments is not what created the requirement that GHGs must be regulated under NSR and Title V; it simply raised the thresholds at which GHGs are treated as "regulated" for purposes of these programs. Thus, if the "Tailoring Rule" were to be invalidated, GHGs would still be regulated, they would just be regulated at a lower threshold. There are a number of other legal challenges to related EPA actions that are currently pending, however, and some of these could alter the legal landscape regarding whether GHGs must be included under EPA's NSR and Title V programs. Staff have evaluated this comment assuming that is contemplating the potential impacts of all of these legal challenges.

[11] Moreover, even if the federal courts were to invalidate EPA's authority to regulated GHGs under the Clean Air Act, the District could potentially want to consider developing similar permitting requirements under state law. Staff have not considered that possibility because there is no indication at this point that the courts will invalidate EPA's efforts. But the point is that it does not make any sense to start planning an appropriate regulatory course of action at this stage, where the future state of affairs is unclear.

Staff believe that it is preferable to see what actually happens and then take action at that point, when the situation can be understood and evaluated better.[12]

In addition, it is probable that the District will need to come back and revisit these permitting programs anyway as other regulatory developments occur. Such periodic updates will provide a convenient opportunity to address the outcome of these pending legal challenges, if necessary. The District does not need to specify at this point what should happen after the courts resolve these legal challenges, because there will be plenty of opportunities to revisit these issues after the result is known.

Finally, EPA has historically been reluctant to approve such "automatic sunset" provisions.[13] Rather than attempt to craft such a provision, Staff have concluded that the best policy will be to wait and see how these challenges are resolved and then develop an appropriate regulatory response at that time, when full information is available.

Comment II.3. – Considerations of Energy Efficiency in NSR Permitting: A commenter suggested that the District should include energy efficiency in NSR permitting under Regulation 2, so that when facilities apply for permits the District will ensure that they are conducting their operations in the most energy-efficient manner. The commenter referenced 2010 CAP Stationary Source Measure 15 – GHGs in permitting, energy efficiency.

Response: Staff agree that incorporating energy efficiency into the NSR permitting requirements for GHGs is critical to achieving meaningful GHG emission reductions. Staff's draft amendments are set up to do just that. For facilities subject to NSR permitting for GHGs, the amendments would require the facility to implement Best Available Control Technology (BACT) to reduce GHG emissions, which focuses on energy efficiency. EPA has clarified in its published guidance documents that BACT for GHGs will be implemented primarily be ensuring that facilities are built with the most energy-efficient equipment.[14] The proposed amendments will incorporate EPA's permitting procedures by reference, including this BACT requirement for energy efficiency. Staff also notes that using the most energy-efficient equipment will also have benefits in helping to minimize emissions of other pollutants. With respect to Stationary

[12] A related comment suggested that the District should do nothing at this point, but should instead wait to see what happens with the litigation before adding permitting requirements for GHGs. Staff disagree that waiting would be beneficial at this time. The District is required to update its NSR rules at this time to add $PM_{2.5}$ because of the Bay Area's recent non-attainment designation, and it makes sense on a number of levels to make all appropriate regulatory updates while the rule is open for revision – including adding GHGs. Moreover, the final resolution of the challenges may take some time, with review in the Court of Appeals and then the potential for Supreme Court review as well. Staff believe that it is preferable to go ahead with developing a PSD program that meets EPA's requirements as they currently exist (which includes GHGs), and then to the extent that a legal decision invalidates part of those rules, to respond as appropriate at that time.

[13] *See, e.g.*, Approval and Promulgation of Implementation Plans; Georgia; Prevention of Significant Deterioration; Greenhouse Gas Tailoring Rule and Fine Particulate Matter Revision; Proposed Rule; 75 Fed. Reg. 73,017, 73,018 n.1 (Nov. 29, 2010).

[14] *See* PSD and Title V Permitting Guidance for Greenhouse Gases, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards (March 2011), at pp. 21-22, available at www.epa.gov/nsr/ghgdocs/ghgpermittingguidance.pdf.

Source Measure 15, that measure addressed GHG impacts from projects as they are considered under CEQA. The District is currently implementing a policy of considering GHG impacts in CEQA documents, and the District will consider energy efficiency in conducting such CEQA review as appropriate, among other issues.

Comment II.4. – GHG Permitting Fees: A commenter suggested that the District raise its existing GHG emission fee in Regulation 3 in order to cover the resource cost of implementing GHG permitting under Regulation 2. The commenter also suggested that GHG emission fees should also be used for a grant fund for climate action and adaptation.

Response: Staff agrees that the fees for NSR and Title V permitting, including GHG permitting, should generally be tied to the District's costs in administering these permitting programs. The District aims to set its permitting fees (in District Regulation 3) on this basis, and will continue to do so. As far as raising funds for grant funds for climate action and adaptation, the District looks for funding revenue where appropriate and carefully balances the pros in terms of raising funds for worthy purposes against the cons in terms of unduly increasing financial burdens. Staff notes that the District has already adopted a GHG emissions fee, which the District uses to fund regulatory activities aimed at responding to global climate change. (See District Regulation 3-334 & Schedule T.) Staff are not proposing to add any additional revenue sources as part of these updates to the NSR and Title V permitting programs, but will continue to evaluate potential revenue sources where appropriate.

III. ADOPTING A DISTRICT PSD PERMITTING PROGRAM FOR EPA SIP APPROVAL

A third principal reason for the proposed amendments is to adopt a District Prevention of Significant Deterioration (PSD) permitting program. PSD is an important sub-element of New Source Review that applies to pollutants for which the Bay Area is designated as attainment (or unclassified, including pollutants such as GHGs for which no NAAQS has been established). For historical reasons, the District has never had its own EPA-approved PSD program, and so PSD permitting has been handled in the Bay Area by EPA using the federal program. The proposed amendments would adopt a District PSD program, which the District would then ask EPA to approve to become legally effective for implementing the Clean Air Act's PSD requirements for facilities in the Bay Area. The District received a number of comments with respect to this aspect of the proposed amendments.

Comment III.1. – Support for Adopting District PSD Program: Many commenters expressed support for adopting a District PSD program. Some of those who supported the idea generally suggested certain specific changes to some of the applicability methodologies proposed in the first draft (see for example next comment below regarding NSR Reform), but overall they supported the idea of the District implementing PSD through its own state-law program instead of having PSD implemented in the Bay Area as a federal program under EPA's regulations. A typical comment stated that the commenter "strongly endorses the District's proposal to move forward with [SIP-approval for PSD]. . . . [A] SIP-approved program . . . should avoid unnecessarily duplicative and lengthy processes associated with issuance of separate permits pursuant to both the District's rules and 40 CFR § 52.21." (Calpine)

Response: Staff are encouraged by this support for adopting a District PSD program. Staff believe that a District PSD program will avoid the confusion that has arisen from having two similar but legally distinct permitting regimes applicable for major sources in the Bay Area. Staff believe that the proposal for a robust District PSD program will enhance the implementation of this important Clean Air Act regulatory program.

Comment III.2. – "NSR Reform" Applicability Methodologies for PSD: A number of commenters stated that in adopting a District PSD program, the District should use the applicability provisions that EPA adopted in 2002 known collectively as the "NSR Reform" applicability provisions. These provisions include[15]:

1. Allowing a more flexible "baseline period" to be used in determining whether an emission increase from a modification at the source will require PSD permitting. A PSD permit is required for any modification that will result in a "significant" increase in emissions above the levels at which the source historically emitted during the baseline period. With a restrictive "baseline period", the source may be forced to base its emissions increase calculation on a period during which emissions may have been lower than what would be expected during typical operations. NSR Reform allowed the baseline period to reach back as far as 10 years to find a representative emissions baseline.

2. Allowing a source to calculate its emissions increase based on its projection of what future emissions will be, rather than on an enforceable permit limit. Historically, a source's emissions were based on its maximum permitted emissions for determining whether a modification to the source would cause a "significant" increase and require PSD permitting. If a source made a modification and did not anticipate that it would cause a significant increase, the source had to make an enforceable commitment – in the form of an enforceable permit limit – that the modification would not cause a significant increase. NSR Reform allowed sources to avoid PSD permitting based solely on an unenforceable projection that a modification would not cause a significant increase in emissions, without any enforceable permit limit to ensure that a significant increase would not in fact occur.

3. Allowing the use of "Plant-wide Applicability Limits" (PALs) for purposes of determining whether PSD permitting is required. PALs are facility-wide emissions caps that allow facilities to increase emissions at some sources without getting a PSD permit as long as they decrease emissions at other sources such that overall facility-wide emissions do not increase by an amount that would require a PSD permit. NSR Reform added provisions to the federal PSD program allowing the use of PALs as an alternative means of complying with the PSD program.

Some commenters suggested that the District should adopt all of these provisions across the entire PSD program in order to provide additional flexibility for regulated entities to modify their facilities without being subject to PSD permit requirements. Other commenters recognized that the District is limited by

[15] These are the NSR Reform provisions that survived legal challenges. Two other elements were invalidated by the D.C. Circuit Court of Appeals. See *New York v. United States EPA*, 413 F.3d 3 (D.C. Cir. 2005). EPA's full suite of NSR Reform provisions can be found at 67 Fed. Reg. 80,186 (Dec. 31, 2002).

SB 288, a California law that was adopted to restrict the use of the NSR Reform methodologies in California. SB 288 prohibits any air district from relaxing any NSR requirements that were in place as of the end of 2002, when NSR Reform was adopted. These commenters stated that even if the District is prohibited from adopting NSR Reform with respect to regulations that were on the books in 2002, the District should adopt the NSR Reform methodologies with respect to new pollutants that were not subject to regulation at that time, such as greenhouse gases. Other commenters submitted that the District need not worry about SB 288 at all with respect to adopting the NSR Reform methodologies, because NSR Reform will actually benefit air quality and will not be a relaxation compared to the pre-NSR Reform tests. These commenters stated that allowing the additional flexibility in how the PSD requirements are applied will allow them to make beneficial improvements to their facilities that will increase efficiency and reduce emissions. They stated that without NSR Reform, the more stringent pre-NSR Reform applicability provisions will discourage them from making such improvements because of the cost, delay and uncertainty they would face if they had to get PSD permits for such projects. They stated that by encouraging such projects, the NSR Reform applicability tests would actually improve air quality and so they would not be a relaxation prohibited by SB 288.

Response: Regardless of the policy arguments for and against NSR Reform, the District is restricted by SB 288 from adopting NSR Reform for the criteria pollutants that it regulated as of 2002 when SB 288 was adopted. The legislature was clear in SB 288 that it did not agree with NSR Reform as it was adopted back then, and that it was prohibiting the air districts from adopting the NSR Reform methodologies at that time. The Air Resources Board – which will be required to approve the proposed amendments as consistent with SB 288 – has taken the same position. Staff are therefore not considering any adoption of any NSR Reform methodologies for any of the criteria pollutants that it regulated as of 2002.

Greenhouse gases were not regulated in 2002, however, and so SB 288 does not apply for implementing the PSD program for GHGs.[16] ARB has issued a legal opinion confirming this understanding of the law.[17] Staff have therefore considered whether it would make sense as a policy matter to adopt any of the NSR Reform applicability methodologies for GHGs. Staff have considered each of the elements of EPA's NSR Reform package on its individual merits.

[16] Some commenters suggested that the same situation applies for $PM_{2.5}$. Unlike GHGs, however, $PM_{2.5}$ is not a completely new pollutant compared to what was regulated in 2002 because $PM_{2.5}$ is a subset of PM_{10}, which was a regulated pollutant in 2002. Furthermore, the principal rationale used by ARB in its legal memorandum concluding that SB 288 does not apply to GHGs was that SB 288 focuses on pollutants for which no NAAQS has been established, which is not true for $PM_{2.5}$. Whether SB 288 applies for $PM_{2.5}$ as a legal matter is therefore unclear. But District Staff do not believe that adopting the NSR Reform applicability methodologies would be appropriate anyway, even if it is authorized under SB 288. PSD requirements already apply for PM_{10}, and $PM_{2.5}$ emissions will closely correlate with PM_{10} emissions for most sources. Thus providing the NSR reform flexibility for $PM_{2.5}$ would not create any meaningful difference for most sources, because they would be subject to PSD permitting for PM_{10} even if they could avoid it for $PM_{2.5}$ because of NSR Reform. For all of these reasons, Staff are not proposing to adopt any of the NSR Reform methodologies for $PM_{2.5}$.

[17] See Air Resources Board Guidance Document, "Tailoring Rule Implementation and SB288" (Dec. 22, 2010), attached to Letter from R. Fletcher, Deputy Executive Officer, ARB, to California Air Pollution Control Officers (Dec. 22, 2010).

- **Baseline Period**

With respect to the baseline period, the District's regulations for criteria pollutants currently require the most recent three-year period to be used in determining baseline emissions. Emissions increases are measured as increases over the source's average emissions over the most recent three years. It is clear that with this baseline period there is a very real potential to end up with baseline emissions that are not actually representative of normal operations. If the most recent three years reflect recession conditions when demand is depressed – as is the case currently – then the baseline emissions against which an emissions increase is measured will not actually be representative of normal source operations. To the contrary, in such a scenario much of the measured "increase" will not in fact be new emissions occurring after the modification, but will simply reflect a return to "normal" emissions levels as the economy recovers. The use of the source's baseline actual emissions as the basis for determining whether there will be a "significant" increase was never intended to capture such emissions. It was intended to capture real increases in emissions that would occur after the modification is implemented at the source, not simply a return to normal conditions that would occur anyway regardless of whether or not the modification is made. Staff are therefore proposing to adopt the more flexible baseline period for GHGs in the second draft. For GHGs only, sources will be able to select any 24-month period within the past 10 years to use as the baseline period. (There is a slightly different rule for electrical utility steam generating units, which mirrors EPA's provisions for these types of facilities.) This baseline period will allow the PSD permitting program to more accurately target emissions increases related to modifications being made at a facility, rather than changes in emissions due simply to fluctuations in the business cycle.

Note also that the District is providing this more flexible baseline period for GHGs only, because SB 288 bars any relaxation of the current 3-year baseline period for other pollutants. For all other pollutants, the three-year baseline will continue to apply.

- **Enforceability of Less-Than-Significant Emission Increases**

With respect to measuring emission increases based merely on projections of future emissions rather than on enforceable emissions limitations, Staff disagree with the suggestions to adopt this approach to PSD permitting. Relying on projections instead of actual enforceable permit limits has significant enforcement concerns. Although a facility may project at the time of permitting that a modification will not cause a significant increase in emissions, if those projections turn out to be wrong once the project is implemented and starts operating there may end up being a significant increase without any PSD requirements being implemented. Moreover, the NSR Reform approach to using projected emissions looks only at the first five years after the modification is implemented. This would allow significant increases to escape PSD permitting review as long as they occur over a time frame of more than 5 years. Many projects have a lifetime of more than 5 years, and so longer-term emissions increases are clearly a concern for PSD permitting. For all of these reasons, Staff are not proposing to adopt the projected-actual-emissions increase test for GHGs. If a facility intends to make a modification that will not result in a significant increase in emissions, the District would not require a PSD permit for such a project – but the facility would need to commit to the fact that there would not be any significant increase in

emissions through an enforceable emissions limit. Staff are not proposing to adopt an approach to PSD permitting that is based solely on the facility's unenforceable projection of what emissions may be.

In reaching this conclusion, Staff have been mindful of the comments that requiring PSD permitting for energy-efficiency projects and similar beneficial enhancements can be counter-productive because it can discourage worthwhile projects from being implemented. Staff disagree that requiring enforceable assurances that such beneficial projects will not cause significant increases will unduly dissuade such projects, however. If a facility is planning a beneficial project that will reduce emissions, Staff agree that such a project should be encouraged and that the PSD requirements applicable to significant emissions increases should not apply. But if the project will in fact reduce emissions, the facility can undertake it without having to undergo PSD permitting simply by agreeing not to increase emissions by more than a significant amount through an enforceable permit limit. If the facility truly wants to implement a beneficial emissions-reduction project, it can do so as long as it makes an enforceable commitment that there will be no significant increase. If the facility is not comfortable making such an enforceable commitment, either because it is not really sure that there will be no significant increase or because it simply wants to retain the flexibility to increase emissions if the need arises, then it will have to obtain a PSD permit. But requiring a PSD permit in this latter scenario is entirely appropriate as a policy matter, because that scenario envisions the possibility of a significant emissions increase – which is exactly the outcome that the PSD program is designed to address. Simply put, if it is sufficiently clear that a project really will be beneficial and will not result in a significant emissions increase, that project can go forward without PSD permitting simply by taking an enforceable permit limit. If there is a potential that the project will result in a significant increase, then the project will be subject to PSD permitting, as is appropriate for significant emissions increases.

Staff have also been mindful of the argument made by some commenters that requiring facilities to agree to enforceable permit limits would effectively eliminate some of the excess capacity that they currently have. This argument envisions a scenario where a source has never utilized its full capacity and so it has the ability in the future to greatly increase its emissions.[18] If the source wants to implement a beneficial improvement project to reduce emissions, but has to agree to an enforceable permit limit at some level below its full capacity in order to avoid PSD permitting requirements, then it will effectively be giving up some of the capacity that it currently has for future expansion, according to this argument.

[18] Specifically, this situation would apply where the source has not utilized its full capacity during the baseline period from which emissions increases are measured. PSD permitting requirements apply if there is a "significant" emissions increase over emissions during the baseline period, and so the concern is that if a source's maximum capacity is more than a "significant" amount over the baseline emissions, then the source will need to take a permit limit at less than maximum capacity in order to avoid PSD permitting. Staff are proposing to allow for the baseline period to be established during the highest 24-month period during the past 10 years, however, which should give sufficient flexibility to establish baseline emissions at a level that reflects the maximum operations that the source has historically experienced. Thus, the concerns about limiting a source's capacity are for all intents and purposes arguments about capacity that the source has never utilized.

Staff disagree that these concerns outweigh the problems discussed above that are inherent in basing PSD permitting on projections of future emissions instead of enforceable permit limits. For one, the PSD permitting requirements would never prohibit the use of this excess capacity under any circumstances. They would simply require that the facility implement the applicable PSD requirements as part of their permit in order to do so. Moreover, the primary substantive requirement, to use the Best Available Control Technology (BACT) to control emissions, is not terribly onerous. BACT by definition is limited to technologies that are cost-effective for the individual facility being permitted, and so by definition PSD permitting will not require facility to spend large sums of money that are not justified by large GHG emission reduction benefits. And EPA has indicated that such benefits will be achieved primarily by installing energy-efficient equipment, which most facilities are likely to do anyway as part of the project design. It is unlikely that any facility would not want to implement the most energy-efficient equipment that it can justify on cost-effectiveness grounds simply because of the fuel savings involved. Being required to do so under a PSD permit condition would therefore be unlikely to make much of a difference in dissuading facilities from installing efficiency upgrades and similar beneficial projects, which is the concern on which these arguments are based.

In addition, a second reason why these concerns are misplaced is that simply because a facility has excess capacity that it has never utilized does not mean that it should be entitled to that capacity forever without having to implement cost-effective emission-reduction technologies. A facility that happens to have extra capacity to emit millions of tons of GHGs above what it has historically emitted should not be penalized because of that fact, but it should not necessarily get a free pass to emit that full amount where there are available, cost-effective methods that it can implement to get meaningful GHG reductions at a reasonable cost. That is all that the facility would need to do substantively in order to retain its full capacity, in situations where it did not want to take a permit limit to avoid PSD review (or if it took a permit limit to avoid PSD review but then decided that it wanted to use the full capacity anyway). And as noted above, it is unlikely that any facility would object to using the most energy-efficient equipment that is justified on cost-effectiveness grounds anyway, given the fuel and/or power savings that would result.[19]

For all of these reasons, Staff are not proposing to base PSD permitting on unenforceable projections of what emissions may be in the future. The PSD requirements for GHGs in the second draft are based on whether or not the source being permitted will have the potential to cause a significant increase in GHG emissions, based on its maximum permitted emissions. If a beneficial efficiency upgrade or similar modification will in fact reduce GHG emissions (or at least, not result in a significant increase), then the source can commit to ensuring that there will be no such significant increase through an enforceable permit limit and no PSD permitting requirements will apply. Conversely, if the project will have the potential to significantly increase GHG emissions, then it will be required to go through PSD review and

[19] Note also that cost-effectiveness for the PSD BACT requirement is evaluated on a source-by-source basis. Thus, the cost-effectiveness of implementing a certain type of equipment for a retrofit of an existing facility would be evaluated differently from the cost-effectiveness of using such equipment in the design of a completely new facility. It is likely that the design goals of any modification to an existing facility subject to PSD review will mesh fairly closely with requirements to use energy-efficient equipment for PSD BACT purposes.

implement cost-effective BACT measures to address its GHG emissions. Such projects should be subject to PSD review, because PSD has always been designed to apply to projects with significant emissions increases.

- **PALs**

The third element of the NSR Reform methodologies concerns Plant-wide Applicability Limits. At present, PALs are subject to a number of restrictions with respect to GHGs that limit how effectively they can be used in that context. EPA is currently undertaking a rulemaking to address some of these concerns and has published a proposed rule setting forth some alternative options for streamlining the use of PALs for GHG sources,[20] but it has not finalized anything at this stage. EPA is expected to publish a final decision later this year, but at this point we have no definitive indication of what revised rules for PALs may result. Moreover, the rules for establishing PALs and using them in permitting decisions are highly complex. Developing provisions for PALs for GHGs as part of the District's PSD program will take considerable time and effort, if Staff were to conclude that doing so would enhance the PSD program. Finally, PALs provide for an alternative method of establishing compliance with PSD permitting requirements, and to they are not necessary in order to adopt a fully functioning PSD program. Although there are arguments that adding the option of using PALs may improve a PSD program, they are not necessary to make it work. For all of these reasons, Staff are not making any final determination at this point regarding whether to add provisions for PALs as part of the proposed PSD program. Staff intend instead to wait to see what develops from EPA's current rulemaking on the subject, and then to consider at that point whether to add them to the District's PSD permitting program for GHGs. If the District were to decide to include PAL provisions for GHGs, developing the regulatory language to do so would require considerable additional time and effort. Staff are therefore deferring any such additional regulatory development until after EPA's process is complete. If future events suggest that adding PALs to the District's PSD program for GHGs would be beneficial, Staff will work with all interested stakeholders to develop such provisions.

Comment III.3. – Determining "Net" Emissions Increases for PSD Applicability: PSD permitting requirements apply to modifications that will result in a significant net increase in emissions. "Net" emissions increases take into account "contemporaneous" emissions increases and decreases: if the sum of all increases and decreases within the "contemporaneous" period are above the established level of significance, then PSD permitting requirements apply. Commenters raised questions about how the "netting" analysis is conducted. They asked what kind of prior emissions increases and decreases can be credited, and whether such increases and decreases have to have been part of "modification" (as defined in Section 2-1-234) that went through NSR permitting. A related question asked whether the "contemporaneous" time period for netting was the same 5-year period that the District uses for establishing contemporaneous on-site emission reduction credits.

[20] Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule Step 3, GHG Plantwide Applicability Limitations and GHG Synthetic Minor Limitations, Proposed Rule, 77 Fed. Reg. 14,226 (March 8, 2012).

Response: Staff intend to establish PSD "netting" that will work in the same way as netting for the federal PSD program. Emission increases do not need to have been part of a "modification" as defined in Section 2-1-234 in order to be counted. Any change at a source that results in an emissions increase or decrease can be counted so long as it falls within the language of "net emissions increase" in Section 2-2-220. A "modification", by contrast, is a change that results in an increase in emissions above the levels specified in Section 2-1-234. The emissions increases and decreases that can be used in the netting analysis is therefore a somewhat larger universe.

Reviewers should note the requirements for netting as set forth in Section 2-2-220 in order to understand what types of emissions increases can be counted. One requirement is that the increase or decrease has to be calculated in accordance with the emission increase/decrease calculation provisions in Section 2-2-604. Those provisions account for decreases only to the extent that they are enforceable. Thus, in order to use a prior emission reduction in a netting analysis, the emission reduction would need to be enforceable through permit condition or otherwise (because any decrease in emissions is based on the source's potential to emit, which is an enforceable level of emissions). Another requirement is that that the emission increase or decrease be "creditable" as defined in Section 2-2-207, which means that it cannot have already been relied on in an earlier PSD permitting analysis. Similarly, the increase or decrease needs to be "contemporaneous", which means that it needs to have occurred within the past 5 years.

With respect to the time period for "contemporaneous" emissions increases and decreases, the "contemporaneous" period is the same five-year period for netting as it is for contemporaneous on-site emission reduction credits. The same term "contemporaneous", defined in Section 2-2-206, applies in both situations.

Comment III.4. – PSD Source Impact Analysis for GHGs: A commenter requested that staff clarify that a PSD Source Impact Analysis does not need to include an analysis of GHGs. The commenter requested that staff clarify what exactly will be required in a PSD analysis for GHGs.

Response: The commenter is correct that the proposed amendments would not require a PSD Source Impact Analysis to include an analysis of GHG impacts. The District's proposed PSD Source Impact Analysis requirements in Section 2-2-305 incorporate by reference all of the requirements applicable to federal PSD Source Impact Analyses prepared by EPA under 40 C.F.R. Section 52.21(k)-(m). As EPA has stated, these federal requirements for PSD Source Impact Analyses do not require an analysis of GHGs. As EPA explains in its recent Guidance on PSD permitting issues for GHGs:

> Since there are no NAAQS or PSD increments for GHGs, the requirements in sections 52.21(k) and 51.166(k) of EPA's regulations to demonstrate that a source does not cause or contribute to a violation of the NAAQS is not applicable to GHGs. . . . ¶ Monitoring for GHGs is not required because EPA regulations provide an exemption in sections 52.21(i)(5)(iii) and 51.166(i)(5)(iii) for pollutants that are not listed in the appropriate section of the regulations, and GHGs are not currently included in that list. However, it should be noted that sections 52.21(m)(1)(ii) and 51.166(m)(1)(ii) of EPA's regulations

> apply to pollutants for which no NAAQS exists. These provisions call for collection of air quality monitoring data "as the Administrator determines is necessary to address ambient air quality for that pollutant in any (or the) area that the emissions of that pollutant would affect." In the case of GHGs, the exemption in sections 52.21(i)(5)(iii) and 51.166(i)(5)(iii) is controlling since GHGs are not currently listed in the relevant paragraph. Nevertheless, EPA does not consider it necessary for applicants to gather monitoring data to assess ambient air quality for GHGs under section 52.21(m)(1)(ii), 51.166(m)(1)(ii), or similar provisions that may be contained in state rules based on EPA's rules. GHGs do not affect "ambient air quality" in the sense that EPA intended when these parts of EPA's rules were initially drafted. Considering the nature of GHG emissions and their global impacts, EPA does not believe it is practical or appropriate to expect permitting authorities to collect monitoring data for purpose [sic] of assessing ambient air quality impacts of GHGs.[21]

Section 2-2-305 incorporates EPA's federal PSD Source Impact Analysis requirements by reference, including these requirements relating to what needs to be done (or does not need to be done) for GHGs. Since a GHG analysis is not required under the federal program, it would not be required under the District's program either. (Further guidance on what needs to be included in a PSD Source Impact Analysis generally can also be found in EPA's New Source Review Workshop Manual,[22] as well as in other EPA guidance documents.)

Comment III.5. – Class I Area Visibility Protection for Non-Attainment Pollutants: Staff from EPA Region IX commented that 40 C.F.R. Section 51.307(b) requires that the District's NSR program must include provisions for evaluating impacts on visibility in Class I Areas for non-attainment pollutants. Per Section 51.307, review of Class I Area visibility impacts for non-attainment pollutants must be implemented in conjunction with the Class I Area visibility analysis for attainment pollutants under the PSD program.

Response: In order to ensure that there are no adverse impacts on visibility resources in Class I Areas from non-attainment pollutants, Staff are expanding the Class I Area visibility analysis requirements in proposed Section 2-2-307 to include non-attainment pollutants. The requirement will now apply to major modifications at major sources for non-attainment pollutants (and their precursors), as well as to attainment pollutants. The title of Section 2-2-307 will be changed to simply "Consideration of Class I Area Impacts" (as opposed to "PSD Class I Area Impacts") to avoid the impression that it applies only for PSD pollutants. In addition, the supporting provisions in Section 2-2-401.4 (requiring a Class I Area visibility analysis in permit applications) and 2-2-402 (regarding notice to the Class I Area Federal Land Manager(s)) are being updated to reflect this change. These provisions will ensure that visibility is

[21] PSD and Title V Permitting Guidance for Greenhouse Gases, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards (March 2011), at pp. 47-48, available at www.epa.gov/nsr/ghgdocs/ghgpermittingguidance.pdf.

[22] Draft New Source Review Workshop Manual, Prevention of Significant Deterioration and Nonattainment Area Permitting (EPA, Oct. 1990), available at www.epa.gov/ttn/nsr/gen/wkshpman.pdf.

protected in Class I Areas from impacts from all pollutants, not just attainment pollutants, as required by 40 C.F.R. Section 51.307(b).

IV. REVISIONS TO REGULATORY LANGUAGE AND STRUCTURE

The fourth principal purpose of the proposed amendments is to clean up and reorganize the language and structure of the Regulation to make it easier to understand and to implement. The District received a number of comments on these proposed changes as well.

A. Determining "Baseline" Emissions For Purposes of Calculating Emissions Increases and Decreases

An important aspect of the District's NSR regulations is how increases and decreases in a source's emissions are calculated when a change is implemented at the source. The District received a number of comments on these issues.

Comment IV.A.1. – Baseline Calculation Period: Section 2-2-603 sets forth how the baseline period is established for purposes of measuring the actual emissions baseline when calculating emissions increases and decreases compared to baseline. The current rules use the most recent 3 years as the baseline period. Commenters suggested that sources be allowed to use a different baseline period if it is more representative of normal source operation. They suggested that this would be consistent with SB 288 because it would not affect the existing requirement that a source's baseline be calculated using actual emissions.

Response: Staff disagree that using a different baseline period would be consistent with SB 288.[23] Using a different baseline period that is more "representative" would allow an applicant to utilize a more favorable baseline period, during which emissions were higher. This would result in a higher baseline, which would in turn lead to a smaller emissions increase (or a larger decrease, in the case of emissions reduction credits), which would be less stringent in terms of applicability of the District's permitting requirements. Staff are not proposing to change the baseline calculation period from what exists in the current regulation because doing so would be prohibited by SB 288.

Comment IV.A.2. – Clarification on Determining When Baseline Period Commences for Calculating Amount of Emission Reduction Credit: A number of commenters asked for clarification on how Emission Reduction Credits (ERCs) are calculated for contemporaneous on-site ERCs (i.e., those that are not banked), as compared with banked ERCs. These comments focused specifically on the baseline period that is used for determining the amount of ERCs. They sought clarification on how the baseline period is calculated when determining the amount of contemporaneous on-site ERCs.

[23] This discussion of baseline periods and SB 288 applies to pollutants covered by the District's regulations as they existed in 2002, the effective date for SB 288 purposes. It does not apply to GHGs. Baseline calculation issues GHGs are addressed separately in the discussion of NSR Reform issues in Section III of this document.

Response: The provisions for determining the beginning and end of the three-year baseline period for calculating the amount of an Emission Reduction Credit were set forth in Subsections 2-2-603.1.2 and 2-2-603.1.3 of the first draft, and they codified the District's current procedures for determining the baseline period under the existing Regulation 2-2. For contemporaneous on-site emission reduction credits, the key concept is that the baseline period is the three-year period immediately before the reduction is actually implemented as an Emission Reduction Credit, as that term is defined and applied under the District's NSR rules. And the key concept for implementing an Emission Reduction Credit under the District's NSR program in this context is that any reductions must be enforceable in order to be credited. The baseline period is therefore the three-year period immediately preceding the date on which an emission reduction becomes enforceable and thus satisfies the requirements for being an "Emission Reduction Credit" under Sections 2-2-211 and 2-2-606.[24]

Thus, where a source is shut down and emissions reductions occur (i.e., the actual emissions that were occurring before the shutdown cease), the baseline period for determining the amount of reductions that can be credited as an ERC is the three-year period immediately preceding the date on which the shutdown is enforceable. This can occur in a number of ways. For example, the source can be physically dismantled and removed from service such that it would take a new permit application (and a new NSR review) in order to reinstall it or otherwise place the source back in service. Alternatively, if the source is not physically removed, permit conditions can be implemented to provide a legally binding commitment that it will not operate (or alternatively, the source's permit can be relinquished). For a source that does not require a permit, a similar commitment can be provided through some other legally binding method, such as contractual provisions that create a legal obligation not to operate the source. In each of these cases, there is a legally enforceable guarantee that the source will no longer be causing the emissions that it did previously, which is the touchstone for generating an Emission Reduction Credit. The baseline period is the three-year period immediately preceding the date on which the enforceable reduction occurred.

Conversely, if a source ceases operating for other reasons – for example, because demand is down and there is no immediate need for the source's product – but the owner/operator wants to retain the legal right to begin operating the source (and causing the associated air emissions), then any emission reductions cannot be credited as an ERC. As long as the operator retains the legal ability to start up again, there is no guarantee that the reductions will continue into the future and the owner/operator cannot take credit for them for air permitting purposes. If the owner/operator decides that it will not need to use the source at all in the future and wants to take credit for the reductions, it can do so by making a legally-binding commitment not to operate the source as discussed above (e.g., through enforceable permit restrictions or relinquishing the source's permit, by permanently dismantling and/or removing the source, etc.). The baseline period would then be calculated as the three-year period immediately preceding the date on which any such legally enforceable guarantee was implemented.

[24] There are other important concepts regarding Emission Reduction Credits, such as the "surplus" requirement. Obviously, a source cannot take credit for an emission reduction as an ERC unless and until the reduction satisfies all such requirements. But in this context, for determining how the baseline period is applied, the key concept is when the reduction becomes enforceable.

The owner/operator would not be able to take credit as part to the baseline for the period before that date when the shutdown was not enforceable, because during that period any such voluntary reductions do not qualify as an "Emission Reduction Credit" under the District's rules.[25]

Staff identified a concern about the clarity of the language that was proposed in the first draft, based on the apparent confusion among those who reviewed the first draft regarding these issues. To address this concern, in the second draft Staff have revised the language to articulate these principles more clearly. Section 2-2-603.1.3 establishes the baseline period for contemporaneous on-site Emission Reduction Credits, and it provides that the baseline period is the 3 year period immediately preceding "the date on which the emission reduction becomes enforceable as required under Section 2-2-211 and 2-2-606."[26]

In addition, in considering these issues Staff have realized that the language on enforceability of emission reduction credits in Section 2-2-606 should also be clarified. The revised language in the second draft recognizes additional specific ways in which an emission reduction can be enforceable, i.e., if a source relinquishes its permit so that there is an enforceable legal prohibition on operating the source, and if a source is physically removed so that it can no longer operate and any replacement or reinstallation of the source would require a new permit.

Comment IV.A.3. – Suggestion to Allow an "Idle Period" When Establishing the Baseline for an Emission Reduction Credit: A number of commenters also asked for clarification on what happens if a unit is "idled" for a period of time before the facility attempts to make the reduction in emissions from the unit permanent. These comments address the situation where the facility stops using an emissions unit (or runs it at a reduced capacity) for business reasons, and then later decides to make the shutdown (or reduction) permanent by dismantling the unit or making the shutdown (or reduction) binding through a permit condition, or by giving up the permit altogether. This period between when the facility reduces the emissions for business reasons and when it makes an irrevocable commitment to the reduction by removing the unit or taking a permit restriction has been referred to as an "idle" period –

[25] A similar situation arises where a source reduces its operation because it has excess capacity (as opposed to shutting down completely) and wants to get credit for the reduced emissions as an ERC. In order to get credit as an ERC, the reduction in operation must be made enforceable. To do so, the source must take an enforceable limit in its permit to create a legally enforceable guarantee that the emissions reductions will be permanent. If the source reduces its operation and associated emissions for business reasons, any such reduction will not be creditable because the source could ramp its operations back up at any time. The baseline period in such a situation will be the three-year period immediately preceding the date on which any reduction in emissions becomes legally enforceable.

[26] For banking of emission reduction credits, 2-2-603.1.4 establishes the baseline period. For banking, the District uses a baseline period that is the three-year period immediately prior to the date of the banking application. The District uses this period for banking applications because it is important to ensure that facilities that want to bank emission reductions bring the reductions to the District's attention as soon as possible. When credits are banked, they can be used for many years into the future and at different facilities, and so it is important that the District review the details of the shutdown that generates a banked ERC as soon as the shutdown occurs, and not several months or years later. In order to encourage facilities to submit banking applications immediately upon shutdown of a source, and to limit the potential for the District to have to review a source's operations too far back into history, the District calculates the baseline period starting at the date of submission of the banking application.

as opposed to a "shutdown", a term used to connote a binding and enforceable reduction for which an emission reduction credit can be granted. Commenters suggested that the District allow for such "idle" time between the date of a voluntary reduction in emissions and the date such a reduction is made enforceable. Some commenters suggested allowing up to six months of "idle" time be allowed without impacting the amount of emission reductions that can be credited, both for calculating contemporaneous on-site emission reduction credits and for calculating banked credits.

Response: The District does not currently allow any credit for such "idle periods" in determining the baseline for calculating emission reduction credits. Any "idle" periods must be included in the baseline period, even if emissions are zero during that period and therefore reduce the source's total baseline emissions. Staff do not believe that it would be appropriate to change the way the this calculation currently works. Simply "idling" a source for business reasons is not consistent with the concept of making an enforceable, permanent commitment to emission reductions that is central to the concept of emission reduction credits. If a facility wants to get credit for such reductions, it should make such reductions permanent and enforceable either by physically removing the source or by making an enforceable legal obligation to do so. Staff do not believe that it is appropriate to give credit for such reductions unless and until such an enforceable commitment is in place. Such "idle periods" of voluntary but not legally enforceable reductions should not be excluded from the baseline period for calculating the amount of an emission reduction credit. The baseline period is the three-year period before an emission reduction becomes enforceable, even if that period includes some time when the source was "idle".

Comment IV.A.4. – Types of Projects Covered by Baseline Calculation and Emission Increase/Decrease Calculation Procedures in Sections 2-2-604 and 2-2-606: A commenter suggested that the District should use the word "modify" in Sections 2-2-604 and 2-2-606 to describe the types of projects with changes in emissions that would be addressed under these sections, instead of the word "change" that was used in the first draft. The commenter noted that NSR applies to new sources and "modifications", and stated that the calculation procedures in Sections 2-2-604 and 2-2-606 should therefore refer to "modifications", not "changes".

Response: Staff disagrees that "modification" is more appropriate. A "modification" is a certain type of change at a source – a change that results in an increase in emissions (see definition of "modification" in Section 2-1-234). But the provisions in 2-2-604 and 2-2-606, which address how to calculate the amount of an emissions increase or decrease from a change at a source, do not apply solely to changes that result in increases. They also apply to calculating the amount of an emissions decrease resulting from a change. The broader term "change" is therefore more appropriate.

Comment IV.A.5. – Emissions Increases For Purposes of "Modification" Definition: One commenter stated its interpretation that the emissions increase/decrease calculation procedures in 2-2-604 should not be used for determining whether a change at a source is a "modification" or an "alteration" under Regulation 2-1. The commenter requested confirmation on this point.

Response: This interpretation is correct. Whether a change constitutes a "modification" is determined by the definition set forth in Section 2-1-234. (Note that this statement pertains to the existing definition of modification based on increases in Potential to Emit. The District is seeking comment at this time on whether to include an additional "modification" test that would be based on an actual emissions baseline of the type set forth in Section 2-2-603 and used in the increase/decrease calculation methodology in Section 2-2-604. Further information on that issue can be found in Section IV.E.2.b.)

Comment IV.A.6. – "Potential to Emit" Increase Calculation Procedure in Section 2-2-605 and PSD Projects: Another commenter requested clarification that the "Potential To Emit" increase calculation procedures in Section 2-2-605 apply to determining cumulative increase only, and not to "PSD calculations". The commenter also requested that staff verify that Sections 2-2-605.2 and 2-2-605.3 are consistent with the definition of modification in 2-1-234.

Response: The commenter is correct that the procedures in Section 2-2-605 apply only for purposes of calculating cumulative increase. This is expressly stated at the very beginning of Section 2-2-605. There are no "PSD calculations" that would be implicated by the provisions in Section 2-2-605. Similarly, there is nothing in the provisions in Section 2-2-605 that are inconsistent with the definition of "modification" in Section 2-1-234. The procedures in Section 2-2-605 apply for purposes of calculating cumulative increase, and not for any other purposes.

B. Regulation 2-1 Permit Exemptions

Comment IV.B.1. – Review of Existing Exemptions: The District received comments regarding the amendments to Regulation 2-1 addressing the exemptions provided in the regulation. The comments stated that the District should review the exemptions to determine whether they continue to be justified and acceptable. The comments focused in particular on how exemptions could potentially allow certain sources of $PM_{2.5}$ (and PM_{10}) to be constructed and operated in a manner that could cause an exceedance of the NAAQS.

Response: EPA staff have also asked District Staff to evaluate the exemptions in Regulation 2-1, as there are a number of new exemptions that have been added since the last time that EPA evaluated Regulation 2-1. District staff have been working on a line-by-line analysis of each new exemption that has been added since EPA's last review, and Staff will submit the full analysis as part of the District's SIP submittal. In general, Staff are finding that such exemptions are justified as part of the District's NSR permitting program, for a variety of reasons. For example, some exemptions were provided when the District made its regulations more stringent to apply to new categories of sources. In some cases, exemptions needed to be provided so that the strengthened regulations would not apply in a manner that would cause unintended adverse consequences. In such cases, these exemptions reflect a strengthening, not a relaxation, of the District's permitting requirements. Another example involves sources that have never been subject to permitting requirements, such as mobile sources that the District has never had authority to regulate. Such exemptions simply state explicitly what has always been the case, and in these cases the exemptions make no effective change to the District's regulatory programs. In some other cases, certain new exemptions do exempt some sources that had previously

been subject to permit requirements, but in those cases Staff's review is finding that such exemptions are justified because the sources will not have any significant impact on air quality. For all of these reasons, Staff's review of the exemptions in Regulation 2-1 is finding that they are justified and acceptable. As noted above, the District will publish its full line-by-line analysis when it is complete.

Comment IV.B.2. – Proposals to Add New Permit Exemptions for Certain Types of Sources: The District received several comments suggesting that it should add new permit exemptions for certain types of sources. One commenter suggested that the District should add an exemption for liquid storage tanks that are used to hold organic liquids with a vapor pressure of less than 0.5 psi. Another commenter suggested that the District add an exemption for sources at manufacturers of solar energy devices in the same way that there is an exemption for certain sources at semiconductor manufacturers. This commenter stated that solar energy devices are moving away from being based on semiconductors that would be eligible for the semiconductor manufacturing exemption.

Response: With respect to tanks storing low-vapor-pressure organic liquids, emissions from such tanks are often low. However, there are circumstances in which emissions may be of concern, even when storing a material with a vapor pressure (RVP) less than 0.5 psia. Emissions may be high if the tank is large, has a large throughput, or is uncontrolled. It would therefore not be appropriate to add a blanket permit exemption for such tanks. Situations where a tank holds a low-vapor-pressure organic liquid and truly does have low emissions are better addressed through existing exemptions for low-emission situations.

Similarly, regarding an exemption for solar manufacturers, solar energy is indisputably a beneficial power source that California needs to be pursuing, but that does not necessarily mean that there should be a blanket exemption for all such operations. Where such manufacturing activities have air emissions that would be subject to District regulations, it is appropriate to require such manufacturers to obtain permits to ensure that their beneficial manufacturing operations do not have unintended adverse air-quality impacts. For operations that truly do have minimal air emission impacts, it would be preferable to address such situations through existing exemptions.

One such existing exemption for low-emitting sources that may apply in these situations is in Section 2-1-103. This exemption applies to sources with emissions of less than 10 pounds per day that are not subject to any substantive requirements of District regulations (among certain other requirements). For such sources, there would be little additional environmental benefit to be gained by requiring a permit. For low-vapor-pressure tanks or sources at solar manufacturers, if such sources truly do have minimal environmental impacts then they would likely qualify for this exemption. For such sources that do have environmental impacts that would be subject to District requirements, then it would be appropriate to require those sources to obtain a permit and ensure that such requirements are being implemented.

For all these reasons, Staff are not proposing to add any new exemptions in the second draft. The existing exemptions are designed to be flexible enough to be applied in a large number of situations where sources should not be required to obtain a permit. These existing exemptions should be sufficient to address most if not all appropriate situations described above regarding low-vapor-pressure

tanks and solar manufacturing equipment. To the extent that there need to be new exemptions developed specifically for these situations, any such exemptions would be more appropriately addressed when the applicable source-specific regulations are next updated. That is, when the District reexamines the specific regulations that apply to emissions from tanks or from solar manufacturing equipment, that would be the appropriate time to examine in detail what regulatory requirements apply to these situations and where a new source-specific exemption may be appropriate. Staff are disinclined to engage in this source-specific type of review during these revisions to the District's general permitting regulations in Regulation 2.

Comment IV.B.3. – Exemption for Installation of Components with Fugitive Emissions Under Section 2-1-128.21: The District attempted to clarify in the first draft of the amendments how the exemption for certain components with fugitive emissions under Section 2-1-128.21 works in practice. The first draft revisions raised a number of issues in comments received by the District, and it has become clear to staff that further detail is needed in the regulatory language about how this provision works. Several specific issues arose that need to be addressed.

Response: Based on all of the discussion around this issue, Staff have revisited the language and intent of this exemption and have made the following changes.

First, this exemption is only for the modification/replacement/addition of components that do not normally have air emissions during routine operations, except for their potential fugitive emissions. Such components include (although are not limited to) valves, flanges, pumps, compressors, and so forth, as listed in the regulatory language. Where other equipment is being modified, installed or replaced that is not such a component, that other equipment is not exempt from permitting simply because it has some of these fugitive components installed on it. For example, a piece of equipment (e.g., a pressure vessel) may have a number of such components installed on it. Modification of the equipment itself is not covered by this exemption and would require a permit. Only modification of the fugitive-emission components installed on the equipment can qualify for this exemption. This principle is already explicit in the current language of subsection 128.21, which states that the activity that is exempt from permitting is the "[m]odification, replacement or addition of fugitive components," not any and all changes at any equipment on which such components may be installed.

Second, the exemption is only an exemption from the requirement to obtain an Authority to Construct before engaging in the activity that constitutes the modification/replacement/addition of the component(s). It is not a blanket exclusion of fugitive emissions from such components from all regulatory oversight. Where a modification of the source on which the fugitive-emissions component is installed is not subject to an exemption and requires a permit, fugitive emissions from the components installed on the source are included in the permit review for the source, regardless of whether the components are/were installed subject to this exemption. Thus, in the example above, say the source involved undergoes a modification that does not just involve the installation of components that is exempt under Section 2-1-128.21, but instead requires NSR permitting. The modification to the source must undergo NSR review under Regulation 2, which could involve the implementation of BACT under Regulation 2-2-301 if emissions from the source are above the applicable 10 pounds per day BACT

threshold. In applying this 10-pound-per-day threshold, all emissions from the source are counted, including emissions that happen to be emitted as fugitive emissions from the components installed on the source. The same principle applies for application of other regulatory provisions. The modification/installation/addition of the components may be undertaken without an authority to construct (assuming the exemption applies), but the emissions from such components are still taken into account when any regulatory requirements are applied to the source on which the components are installed. This principle has always been implicit in the exemption, and is stated explicitly the proposed amendments in subsection 128.21.5 in the second draft.

Third, modification/replacement/addition of components under this exemption cannot be used to circumvent permitting requirements where such modification/replacement/addition may result in an increase in non-fugitive emissions from the equipment on which the components are installed. For example, modification/replacement/addition of pumps or compressors on a process unit could potentially increase the effective capacity of the process unit – either directly or by removing a "bottleneck" in the overall process – and thereby increase emissions. Such an emissions increase from the process unit would be a "modification" as defined in Section 2-1-234 and would require an Authority to Construct, and the existence of this exemption for installation of such components cannot be used to avoid this permitting requirement. In such a case, the modification/replacement/addition of the component that resulted in such an emissions increase would be subject to permit review. The exemption would not apply. This principle is also implicit in the current language of the exemption, and is stated explicitly the proposed amendments in subsection 128.21.1 in the second draft.

Fourth, the exemption applies only for the addition of fugitive-emissions components on process units where the total fugitive emissions from all additional components installed on the process unit in any 12-month period do not exceed 10 pounds per day. This is stated in the current reference to "cumulative emissions" from such components not exceeding 10 pounds per day, which will be revised to read "total allowable fugitive emissions" with an explanation that such emissions are based on the total allowable fugitive emissions under District regulations. This revision will clarify (i) that it is fugitive emissions from all such components installed within the past 12 months that is taken into account in applying the 10 lb/day requirement; and (ii) that it is total fugitive emissions that the components are legally entitled to emit that is taken into account – not typical measured leak rates or anticipated average leak rates, which may be lower than the maximum allowable leak rate, and not actual leak rates from any valves emitting in violation of District regulations (e.g., non-repairable equipment on a petroleum refinery's "turnaround list" awaiting replacement), which would be higher than the maximum allowable leak rate.

The second draft reflects these further revisions regarding how this exemption should be applied.

Comment IV.B.4. – Components with Fugitive Emissions Installed on Equipment That Is Not Part of a "Process Unit": Beyond the discussions above regarding how the exemption for fugitive-emissions components works, several commenters also suggested a change in the language on the applicability of the exemption. These commenters noted that the current language in the exemption refers only to components on existing "process units". The commenters suggested that the exemption should apply

to such fugitive emissions components installed on equipment that may not be part of a "process unit" – e.g., on tank farms and interplant piping.

Response: Staff agree that the exemption was not intended to be applied so narrowly. The same considerations that support the exemption for components installed on "process units" also apply to components installed on other types of equipment that may not normally be considered part of a "process unit". The second draft amendments include additional language to specify that components on other types of equipment can qualify for the exemption (assuming they satisfy all of the requirements of the exemption). With respect to the requirement that fugitive emissions from all additional components installed on a process unit within 12 months do not exceed 10 pounds per day, the total emissions from all such components installed in any 12 months period – i.e., all components installed at the facility under this exemption that are not installed on a "process unit" – must not exceed 10 pounds per day.

C. Accelerated Permitting Program

Comment IV.C.1. – Threshold for Using Accelerated Permitting Program: The District received comments stating that the revised language would limit the use of the Accelerated Permitting Program to facilities that emit less than ten pounds per day (or facilities where the increase from the permit would be less than ten pounds per day), and questioning whether this was really the intent underlying this program.

Response: The Accelerated Permitting Program is not limited to facilities with emissions under ten pounds per day. Any facility of any size may utilize the Accelerated Permitting Program for any source at the facility that meets the criteria of the rule. One of the criteria (covered by subsections 2-2-106.1 of the current Regulation 2-1 and subsection 2-1-302.2.1 of the draft revisions) does include a 10-pound-per-day threshold, and this comment appears to be alluding to this provision. This provision applies to sources, not to facilities; and it does not categorically exclude sources over 10 pounds per day, it just requires that they be pre-certified under Section 2-1-415. This is how the program works now under the current version of Regulation 2-1, and how it would continue to work under the draft amendments.

Comment IV.C.2. – Issuance of Temporary Permit to Authorize Operation Pending Full Permit Review: Several commenters asserted that under the current rule, an applicant may commence construction on a project under the Accelerated Permitting Program as soon as it has submitted a certified complete permit application, without waiting for any response from the District. These commenters stated that the draft revisions would change the way the program works and require that the District issue a Temporary Permit to Operate based on the application before construction can commence. These commenters stated that the requirement for a Temporary Permit to Operate is a "new" requirement.

Response: Staff acknowledge the confusion that has arisen under the current regulatory language, which is one of the reasons for clarifying these provisions. The current regulation does require a Temporary Permit to Operate ("A temporary Permit to Operate will be issued as soon as the APCO determines that the application is complete."), and it has been the District's practice to issue them

under the Accelerated Permitting Program. Moreover, the Accelerated Permitting Program is required to have such a provision in order to be approvable under the Clean Air Act. District staff met with representatives of EPA Region IX regarding this provision, and Region IX staff commented that the District should make the Temporary Permit requirement more clear in order to avoid the appearance that this may be an impermissible "notice-and-go" permitting program. As Region IX staff explained, a "notice-and-go" program simply requires the applicant to inform the permitting agency of its proposed project and then authorizes the applicant to commence construction without waiting for permission or approval from the permitting agency. This type of permit program is not allowed under the Clean Air Act in an NSR regulation. The District is clarifying the language on how the Temporary Permit to Operate process works in part to respond to this concern. The District's program has always had this required element that the applicant be issued a Temporary Permit to Operate before starting on the project, and the District is simply clarifying how the process works in order to avoid this sort of confusion in the future.

Comment IV.C.3. – Accelerated Permitting Requirements for "Alterations": The District received a number of comments on how "alterations" to existing sources would be addressed under the Accelerated Permitting Program. In the current rule language, the Accelerated Permitting Program addresses alterations in a separate provision in the last sentence in Section 2-1-106. In the first draft of the amendments, staff proposed treating "alterations" in the same provision that applies to new sources and modifications in Section 2-1-302.2.1 – which would limit use of the Accelerated Permitting Program to situations where the source emits less than 10 pounds per day or is pre-certified under Section 2-1-405, among other requirements.

Commenters objected to moving the provision for "alterations" to section 302.2.1 and making them subject to the same restrictions that apply to new sources and to modifications (i.e., source must be under 10 pounds per day or be pre-certified under Section 2-1-405). They stated that doing would effectively restrict the Accelerated Permitting Program to sources at which emissions are less than 10 lbs/day and objected that this would virtually eliminate the use of the Accelerated Permitting Program for alterations for refineries for sources over 10 pounds. They stated that this would be contrary to the District's intent when it added a permitting requirement for "alterations", and would be contrary to the District's past practice regarding "alterations". They stated that adding "alterations" to the Accelerated Permitting Program was a compromise reached when the District started requiring permits for "alterations" between the need for District review of "alterations" (that is, projects that don't increase emissions, as defined in Section 2-1-233) and the need for regulated facilities to be able to make such changes without undue permitting delay. They stated that the District should not upset this compromise, because it continues to reflect the appropriate balance between the need for the District to review these situations and the need for regulated facilities to implement such changes in a timely manner.

The commenters brought up examples such as where an inspection during a maintenance turnaround shows that a burner needs to be replaced – which would normally be an "alteration" because it would not result in any increase in emissions. They stated that such a replacement would need to be completed quickly, because maintenance turnarounds normally last only 30 days or less. They stated

that if it qualifies for the Accelerated Permitting Program, the facility would be able to implement it quickly; but if it does not, the facility could have to wait for up to 9 months for the full permit review to be complete. These commenters were greatly concerned about the impact if such projects—and similar emissions-neutral projects, emissions abatement projects, energy efficiency projects, etc.—are restricted to sources that are below 10 lb/day or pre-certified under Section 2-1-405. The commenters suggested that the amendments should restore the provision allowing alterations to qualify for the Accelerated Permitting Program without regard to the qualifications in subsection 2-1-302.2.1.

Response: Staff reviewed the staff report and related materials prepared in connection with the adoption of the current Accelerated Permitting Program provisions addressing "alterations",[27] and have considered these points regarding the need to expedite the approval of this type of project – and in particular the observation that by definitions "alterations" do not involve increases in emissions. Staff agree that these considerations warrant having a separate provision that covers "alterations" without the same restrictions that apply for new sources and modifications. In the second draft, Staff have restored the separate provision for "alterations" under the Accelerated Permitting Program that currently exists in the last sentence of Section 2-1-106. This provision is in subsection 2-1-302.2.3 in the second draft. Note that the applicant will have to certify in its application for the Accelerated Permitting Program that the project satisfies the requirements for accelerated permitting – which in this case will be that it does not involve an increase in emissions and therefore qualifies as an "alteration" under Section 2-1-233.

Comment IV.C.4. – Requirements for "Complete" Application Under Accelerated Permitting Program: Several commenters expressed concern about the distinction between the completeness requirements for a full permit application under Regulation 2 vs. the completeness requirements for an application for a temporary permit under the Accelerated Permitting Program. These comments noted that the criteria for an application under the Accelerated Permitting Program are different than the completeness criteria for a full permit application. They noted that the completeness review for a full permit application can be very lengthy, given the extensive criteria and information that needs to be submitted for a full application; whereas the requirements for the preliminary review for obtaining a Temporary Permit to Operate under the Accelerated Permitting Program are necessarily less extensive (i.e., the process is accelerated). The comments requested that the amendments clarify the difference. One idea that was suggested was to use a different term than "complete application" for Temporary Permits to Operate issued under the Accelerated Permit Program, as that term has already an established meaning in relation to review of the full permit application. As an alternative, another suggestion was to create an expedited completeness determination process for all permit applications.

Response: These comments are correct in pointing out the distinction between the expedited review for a Temporary Permit to Operate under the Accelerated Permitting Program and the subsequent full permit review. The preliminary expedited review pending the completion of the comprehensive full permit review is the hallmark of the Accelerated Permitting Program. Staff agree that the use of the

[27] See Staff Report, *Proposed Amendments to BAAQMD Regulation 1 (General Provisions) and Regulation 2 (Permits) etc.*, BAAQMD Permit Services Division (May 2000) at p. 15.

term "complete" permit application could be misleading and cause confusion because of the way that term is commonly used in relation to the full permit review. Staff have therefore removed reference to a "complete" application under the Accelerated Permitting Program in subsection 2-1-302.2, and have instead inserted the phrase "application [that] contains all of the elements required by" the Program. This language states very clearly that when an applicant submits an application that includes each of the elements required under the Accelerated Permitting Program, the District will issue the Temporary Permit to Operate and allow construction to commence during the period while the District is conducting its full, comprehensive permit review.

Comment IV.C.5. – Reference in Current Regulation 2-1-106 to "Alterations" That Do Not Involve An Increase In Emissions: The District received comments regarding the wording in the current regulation about an "alteration that does not result in an increase in emissions." The comments stated that the amendments should define "increase" in this context as an increase above currently permitted limits.

Response: This reference to alterations that do not involve emissions increases is redundant, because by definition an alteration is a change that does not involve an increase in emissions as defined in Section 2-1-233. Staff thus agree with the idea expressed in these comments about how this provision should be interpreted. But this concept is already inherent in the "alteration" definition of Section 2-1-233, and so it does not need to be repeated in the requirements for alterations to qualify for the Accelerated Permitted Program. Staff are therefore deleting the reference to "increase in emissions" here. To the extent that there is any need for clarification of how "alteration" should be interpreted, staff are adding a reference to the "alteration" definition in Section 2-1-233.

Comment IV.C.6. – Accelerated Permitting Program for Modification/Replacement/Addition of Components with Fugitive Emissions Exempt from Permitting Under Section 2-1-128.21: The District received several comments regarding how the Accelerated Permitting Program would be applied to projects involving components with fugitive emissions that are exempt from permitting requirements under Regulation 2-1-128.21. As discussed in more detail in Section IV.B.3. of this document, Regulation 2-1-128.21 provides that the modification, replacement or addition of components such as valves, flanges, pumps, compressors, etc., that do not have emissions under routine conditions (other than potential fugitive emissions) are exempt from permitting under Regulation 2 and do not need an Authority to Construct (assuming they meet certain requirements set forth in the exemption).

The comments stated that if a project being implemented at a source involves the installation of such components that is exempt under Section 2-1-128.21, and the project otherwise qualifies as an "alteration" with no increase in emissions under the definition in Section 2-1-233 (i.e., the only potential increase in emissions would be fugitive emissions from the components being installed under Section 2-1-128.21), then the project should be able to qualify for the Accelerated Permitting Program as an "alteration". The comments pointed to the last sentence of the current Section 2-1-106 in this regard, which would be re-codified in subsection 2-1-302.2.3 under Staff's second draft amendments; some of commenters also referred to this as "Option 3" of the Accelerated Permitting Program. The commenters stated that the eligibility of such projects under "Option 3" was discussed extensively in connection with the 2000 rule amendments, and the intent of those amendments was to allow the use

of the Accelerated Permitting Program for projects with no emissions increases except for the addition of components with fugitive emissions that are exempt from permitting under Section 2-1-128.21. The commenters suggested that the District should add language to the Accelerated Permitting Program provisions clarifying that where a project does not involve any increase in emissions other than potential fugitive emissions from the addition of components exempt from permitting under Section 2-1-128.21, the project can still qualify for the Accelerated Permitting Program as an "alteration".

Response: There is no need for the Accelerated Permitting Program to make special accommodations for situations where the addition of components with fugitive emissions is exempt from permitting under Section 2-1-128.21. If the installation of such components is exempt from permitting, then it does not need a permit and there is nothing to accelerate. It is exempt and can go ahead without any review by the District.

These comments appear to contemplate the specific situation where a facility undertakes a more significant project that involves a physical change at an existing source that does require a permit, but which also includes the addition of some fugitive components that meet the requirements set forth in Section 2-1-218.21. The comments appear to address the situation where such physical change would not result in an increase in emissions and therefore would be an "alteration" under Section 2-1-233, except for the question of new fugitive emissions because of the addition of the exempt fugitive components. The comments appear to express a concern that such changes to a source that would otherwise be an "alteration" could thus become a "modification" because of the fact that they involve the addition of fugitive components and thus new potential fugitive emissions.

This situation would not be a concern for permitting, because the determination of whether a project is an "alteration" or a "modification" is made based on the equipment being permitted – not any exempt equipment that is not subject to permit requirements. In this situation, the changes at the source requiring an Authority to Construct do not involve an increase in emissions and therefore would be an "alteration". The additional fugitive components are not part of this permitting action because they are exempt – installing them does not require a permit per Section 2-1-128.21. The Authority to Construct would be issued for the changes being made to the source that constitute the "alteration", which would not include the installation of the exempt fugitive components. (The permitting documentation may discuss the additional exempt equipment that will be installed and note that it is exempt, which improves the clarity and understanding of what will be occurring at the facility for all involved. But the permit that is issued will not be for the additional exempt equipment, because it is exempt.) This is how exempt equipment is treated under the District's permitting system, and there is no need to make any changes to the Accelerated Permitting Program to account for the addition of components that are exempt under Section 2-1-128.21.

Comment IV.C.7. – Hypothetical Example Regarding Use of Accelerated Permitting Program: Commenters raised a hypothetical example regarding how the Accelerated Permitting Program would work in practice. The hypothetical concerned what would happen in the situation where a facility is in the middle of a maintenance turnaround and it finds that it unexpectedly needs to replace a burner component (or similar element of a process unit) at the last minute. In this example, the facility will

need to take action quickly, because the process unit is only down for a short period of time for the maintenance turnaround. The comments asked whether this type of situation could be accommodated under the Accelerated Permitting Program.

Response: The District's current rules as well as the draft amendments could apply to this hypothetical situation in several ways, depending on the particular facts and circumstances involved. First, if the component replacement constitutes "routine repairs, maintenance or cyclic maintenance that includes replacement of components with identical components," then it is not an alteration or modification that would be subject to permitting requirements under Section 2-1-301. Assuming it was not and required a permit, then it could be addressed under the accelerated permitting program as an "alteration", assuming that the replacement did not involve an emissions increase that would make it a "modification" under Section 2-1-234. And even if it was a "modification" under 2-1-234, it could still qualify for the Accelerated Permitting Program if it satisfied the eligibility criteria in current subsections 2-1-106.1 through 2-1-106.3, which are being moved in the draft amendments to subsections 2-1-302.2.1.

Comment IV.C.8. – Accelerated Permitting Program Not Available For Projects Subject to NSPS: Staff observed that the Accelerated Permitting Program should not be available for projects that are subject to EPA's New Source Performance Standards (NSPS), because these regulations may impose substantive requirements on the project that may require design changes.

Response: The District does not want to create a situation where an applicant goes forward and starts constructing a project with a Temporary Permit to Operate under the Accelerated Permitting Program, only to find later on down the road that it needs to change its project design because of NSPS requirements. The second draft amendments therefore add a requirement that an applicant under the Accelerated Permitting Program must certify that the project does not trigger any NSPS requirements. This provision is not intended to be a requirement that the applicant make a determination with 100% accuracy as to whether any NSPS standards apply, and there is no sanction if the District or EPA later disagrees. It is intended solely to ensure that the applicant has considered the NSPS requirements and does not foresee any potential problems, so that no such problems arise later on after the applicant has begun the project under a Temporary Permit to Operate. The applicant will assume the risk that its assessment of NSPS applicability may turn out to be wrong and that it may later be determined that some NSPS requirement does apply, but at least the issue will have been flagged beforehand and the applicant will not be able to claim ignorance of the requirement.

D. "Case-by-Case MACT" Requirement

The Clean Air Act Amendments of 1990 required EPA to establish National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for certain categories of facilities that emit such pollutants. The Amendments required EPA to adopt NESHAPs as nationwide regulatory standards according to a specified schedule. As a backstop in the event that EPA failed to adopt such nationwide standards as required, the Amendments also established a provision requiring permitting agencies to impose standards equivalent to what would be required by a NESHAP on a case-by-case basis for any facilities

for which EPA has not adopted a NESHAP. (See CAA § 112(j).) This requirement is called the "case-by-case MACT" requirement. The District's regulations currently implement this requirement as part of the NSR permitting program through Section 2-2-317. Staff are proposing to recodify the requirement in the Title V permitting regulations in new Section 2-6-315, because the Clean Air Act Amendments of 1990 intended that the case-by-case MACT requirement would be implemented through the Title V permit process. (*See* CAA § 112(j)(4),(5).)

Staff received a number of comments on these issues.

Comment IV.D.1. – Importance of Identifying Case-by-Case MACT Issues Pre-Construction: Several commenters stated that it is important to ensure that any applicable Case-by-Case MACT requirements are identified at the time of pre-construction permitting. These commenters noted that it would not be an efficient outcome if a new source is designed and built and starts operating, only to find out later on that it will be subject to a case-by-case MACT requirement and may need to take additional pollution control steps that it had not anticipated. To address this issue, some commenters suggested that the case-by-case MACT requirement should at least be flagged in a permitting review under Regulation 2-1 or 2-2, rather than put off until the Title V permitting process which often does not take place until after construction is complete. The commenters suggested that perhaps a provision addressing any applicable case-by-case MACT requirements should be added to Regulation 2-5, the District's rule on Toxics New Source Review.

Response: Staff agree that it is important to identify all regulatory requirements that may be applicable to a source before the source is built and begins operating. Staff agree that it would not be good practice for a source to be permitted and then begin operating, only to discover later on that there is some regulatory requirement that requires the source to install additional pollution control equipment or otherwise have to change its operation. Staff note, however, that this principle applies to all Hazardous Air Pollutant requirements – and indeed, all regulatory requirements in general – and not just to the Case-by-Case MACT requirement. This is why the District's pre-construction permitting review evaluates all applicable regulatory requirements, not simply the New Source Review requirements set forth in Regulation 2, Rule 2 or other specific requirements contained in regulation 2. This pre-construction review, which the District documents in its Engineering Evaluation it prepares for each permit, evaluates NSR requirements, other requirements in Regulation 2 such as toxics requirements from the District's toxics NSR rule in Regulation 2, Rule 5, and requirements imposed by other regulations outside of Regulation 2, such as federal NESHAP requirements. This comprehensive regulatory review is designed to ensure that all such requirements that may be applicable to a source's operation are identified and addressed at the pre-construction stage (among other purposes). This review in the Engineering Evaluation is designed to address any case-by-case MACT requirements, in the same way that it addresses any NESHAP requirements where EPA has promulgated a NESHAP. The case-by-case MACT requirement was adopted as a back-stop to ensure that if EPA fails to adopt a NESHAP for some reason, permitting agencies will impose the same effective controls as a NESHAP would require for each individual source. The District's Engineering Evaluation addresses any NESHAP that will apply to a source where EPA has promulgated a NESHAP, and it also addresses any case-by-case MACT requirement in cases where EPA has not promulgated a NESHAP and that requirement kicks in instead.

Staff are therefore not adding any regulatory language specific to the Case-by-Case MACT requirement. The issue will instead be addressed through the District's Engineering Evaluation that it prepares for every permit it issues for every new or modified source.

Comment IV.D.2. – Basis for Implementing Case-by-Case MACT Requirement: A commenter stated that proposed Section 2-6-315.3 would allow the District to impose MACT requirements if EPA has not promulgated any NESHAP standards for the source. The commenter stated that it was unclear what the District's authority would be for doing so, given that stringent local toxics standards already apply. The commenter also noted that this requirement may be in addition to the District's TBACT requirements, as EPA's "Hazardous Air Pollutant" list is not identical to the District's "Toxic Air Contaminant" list. The commenter proposed deleting this proposed provision from Regulation 2-6.

Response: As explained above, the Case-by-Case MACT requirement was created as a backstop to address hazardous air pollutant concerns specifically in cases where EPA has not adopted a NESHAP. This requirement therefore applies specifically in cases where EPA has not done so. That is why Section 2-6-315 applies specifically in cases where EPA has not adopted a NESHAP. (Where EPA has adopted a NESHAP, the provisions of the NESHAP would apply instead and there would be no Case-by-Case MACT requirement.) Moreover, the federal Case-by-Case MACT requirement is slightly different from, and in addition to, the District's own stringent air toxics requirements. This is why the District includes it in the regulations as a separate requirement (although the District's requirements will most likely be substantively the same and will not require anything different from sources subject to the federal requirement[28]). The authority for this provision – and the mandate that the District must include it – is in Section 112(j) of the Clean Air Act, which creates the Case-by-Case MACT requirement for situations where EPA has not promulgated a NESHAP and provides that it is to be implemented through the Title V permitting process.

Comment IV.D.3. – Question About Applicability Language of Case-by-Case MACT Requirement: A commenter stated that the draft language on the Case-by-Case MACT requirement changes the requirement from evaluating a "source" to evaluating a "facility". The commenter requested clarification that this change is intended to change how the requirement would be applied.

Response: The commenter is correct that the proposed provisions implementing the Case-by-Case MACT requirement would not make any substantive change in how the requirement will be applied. This change in terminology from "source" to "facility" arises because the requirement is being moved from Rule 2, which governs NSR permits issued for new and modified "sources", to Rule 6, which governs Title V permits issued to major "facilities". The language in current Section 2-1-317 thus states that no permit may be issued for a "new or modified source" unless Case-by-Case MACT is implemented (to the extent it is applicable) for the source, whereas the revised language in Section 2-6-315 will state that the Case-by-Case MACT requirement needs to be implemented (to the extent it is applicable) in the

[28] Indeed, the similarity between the District's TBACT requirement and the federal Case-by-Case MACT requirement is the reason why the current Section 2-2-317 implements Case-by-Case MACT through language referencing the District' TBACT standard. The requirements are not exactly identical, however.

Title V permit for any "facility" that meets the specified criteria (i.e., the facility is "major" for HAPs, it is in a EPA-listed category of HAP sources, and EPA has missed its deadline for promulgation of a NESHAP for that source category).[29]

E. Definitions

The District received the following comments on other definitions.

1. "Facility" Definition

The first draft included revisions to the definition of "Facility" that were intended (i) to clarify how the definition works and (ii) to consolidate the three different definitions listed in Sections 2-1-213, 2-2-215, and 2-6-206 so that there will be a single provision in which this term is defined for purposes of Regulation 2. In making these draft changes, staff had three main points in mind that are relevant to the comments raised. First, the revised language incorporated the concepts in current subsections 2-2-215.1 through 2-2-215.3 regarding the inclusion of emissions from "related sources" at different facilities when calculating a facility's cumulative increase. The draft incorporated these related source concepts into the definition of "facility" because this is how they are currently addressed in the existing rule. Second, the draft language also attempted to capture the concept of a "support facility" that is included in the definition of "facility". The "support facility" concept is a long-standing interpretation of the "facility" definition that has been developed over many years, and includes as part of the main facility emissions from subsidiary facilities that convey, store, or otherwise assist in the production of the principal product of the main facility, even when the support facility is not in the same major industrial grouping. There has been confusion in the past over how this interpretation applies under the current language of the definition. Staff wanted to address this issue more specifically with the revised language, and intended to have the "related source" language cover "support facility" issues. Third, the draft language also proposed to change the current test that is used to determine whether non-contiguous sources may constitute a single common "facility". Currently, the definition specifies that sources on different properties can be treated as a single common "facility" if they are "adjacent", which is a broad term that can be applied flexibly. The first draft proposed to replace this broad term with a specifically defined "bright-line" 3-mile limit to make it clearer and easier to apply in practice. The District received a number of comments on these issues.[30]

[29] Note also that the revised language in proposed Section 2-6-315 refers to NESHAPs that have been established by EPA for a "category or subcategory of sources". The proposed language uses this term because EPA refers to an entire facility as a "source", and when it establishes a NESHAP applicable to facilities in a particular industry, it says that the NESHAP is applicable to that category of subcategory of "source". The District refers to the entire facility as a "facility", and to an individual emissions unit at the facility as a "source".

[30] The District notes that the first draft revisions to Section 2-1-213 were included only in the summary table explaining the revisions. Only part of the revised language was included in the underline/strikeout version of Regulation 2-1 that was published on the District's website. Several commenters noted this discrepancy and stated that it was confusing as to what the District intended. The District apologizes for any inconvenience, and invites any members of the public who were not able to understand what Staff were proposing as a result of this oversight to submit comments on these issues during the further comment period.

Comment IV.E.1.a. – "Related Sources" And Cumulative Increase Calculations: Several commenters noted that the provisions regarding "related sources" in the current rule apply only to calculating cumulative increase. They stated that retaining them in the definition of "facility" for general permitting purposes would change the definition of "facility" from what exists now. The commenters suggested that these "related sources" provisions should be put in the cumulative increase calculation procedures in the 2-2-600s section.

Response: Staff agree that under the current rule the "related sources" provisions apply only to calculating cumulative increase. Staff is not intending to change the way the "facility" definition applies, and agrees that making the "related sources" provisions an element of the definition for all permitting purposes would be a change to the way the regulation works currently. The second draft revisions therefore remove the "related sources" provisions from the definition of "facility", where they are located under the current regulation, and move them to the cumulative increase calculation procedures as suggested by the commenters. This change will ensure that the revised regulation is consistent with the way the current version works.

Comment IV.E.1.b. – "Adjacent" Sources vs. Bright-Line 3-Mile Test: The District also received comments suggesting that the District should not adopt a "bright-line" test for aggregating different sources as a common "facility", but should continue to retain discretion to make such a determination on a case-by-case basis. The commenters were concerned that some sources should not be treated as a common facility even where they are within 3 miles; some stated a concern that the three-mile bright-line test would result in improper "co-mingling" permits from "non-contiguous facilities" that are commonly owned. They cited several EPA documents explaining EPA's policy position that source aggregation for the purposes of defining a "facility" is highly fact-specific and should be made on a case-by-case basis.

Response: Staff agree that determinations of what constitutes a "facility" are highly fact specific and should be made on a case-by-case basis. Sometimes sources within three miles should not necessarily be treated as a single common facility, and sometimes sources more than three miles apart should be treated as a single common facility. The second draft of the proposed amendments changes the distance test back to the more flexible "adjacent" test that is used in the current regulation.

Comment IV.E.1.c. – "Support Facility" Issue: The District also received comments regarding the "support facility" concept. The comments suggested that, as with the distance test discussed in the previous comment, the District should continue to apply the "support facility" concept on a case-by-case basis and consistent with EPA guidance.

Response: Staff agree that the "support facility" concept needs to be applied on a case-by-case basis. In the first draft, staff had attempted to combine the "support facility" concept with the "related source" concept discussed above. As stated in response to Comment No. IV.E.1.a., the "related source" provisions are now being moved to the cumulative increase calculation procedures in Section 2-2-608. This leaves the "support facility" concept to be addressed in the "facility" definition in Section 2-2-213. It is staff's intention that the concept should be applied in the same manner as EPA applies it under the

federal definition of "facility", which is substantially identical to the District's definition of "facility". The second draft is therefore adding language that tracks the language EPA uses in applying the "support facility" concept.

The second draft also adds a definition of "support facility" in Section 2-1-242, which uses the identical language to EPA's; and it adds language in the "facility" definition in Section 2-2-213 that makes clear that "support facilities" are considered part of the principal facility that they support for permitting purposes under Regulation 2. On this issue, Staff are soliciting input from interested members of the public on whether to include an element in the "support facility" definition requiring that 50% of a support facility's output or services be dedicated to the principal facility for this "support facility" relationship to exist. EPA's policy is to treat this 50% threshold as a presumptive indicator that a "support facility" relationship exists, but not as a determinative requirement. That is, EPA's policy allows the agency to find that such a "support facility" relationship exists even where less than 50% of the support facility's output or services are dedicated to the principal facility in cases where other factors demonstrate that such a relationship exists. Staff invite interested members of the public to comment on whether the District's definition should include this 50% threshold as an explicit element of the definition of "support facility", or whether the District should simply apply the 50% threshold as a presumptive indicator in the same manner as EPA does.

2. Definitions of "Alteration" and "Modification"

Staff are proposing to amend the definitions of "alter" and "modify" to clarify how these terms function. These are very important definitions for purposes of New Source Review, because NSR permitting requirements apply to new sources and modifications. Thus, if a change at a source is a "modification", it is subject to the NSR requirements in Regulation 2-2. Conversely, if it is an "alteration", it is not subject to those requirements. These provisions, and the comments the District received regarding them, are discussed below.

a) The "Modification" Definition in Section 2-1-234

The current definition of "modification" in Section 2-1-234 states that a modification is an increase in emissions above a permit limit (in current subsections 234.1 and 234.2); and if there are no applicable permit limits, then an increase above the source's actual, physical capacity to emit a pollutant (in current subsection 234.3).[31]

In the first draft of the amendments, Staff attempted to clarify how this definition works with respect to the types of permit limits that are effective for determining whether a "modification" takes place under subsections 234.1 and 234.2. Staff attempted to do so by stating more specifically what types of

[31] Note also that there is an exclusion in this definition for *de minimis* increases in toxics emissions. The District's NSR rule that is the subject of this rulemaking is primarily concerned with criteria pollutant emissions, not toxics. The following discussion therefore focuses on the criteria pollutant elements of the "modification" definition, which are based simply on increase in PTE, with no *de minimis* threshold level. These elements are the effective "modification" threshold for criteria pollutant NSR.

provisions set forth in District permits would be credited for purposes of this definition and what types of provisions would not be credited. The first draft used the term "NSR Permit Limits" to delineate what kinds of permit limits would be credited. This proposed terminology generated a great deal of comments about what exactly it means and how it would be applied. Based on this feedback, Staff have given further consideration to how the "modification" test is Section 2-1-234 was intended to work.

Based on this further consideration, it is apparent that a "modification" was intended to be an increase in the source's maximum legally-authorized emissions as allowed under its permit conditions; or in the absence of any enforceable permit limit, then its maximum physical capacity to emit air pollutants. This, in essence, is a measure of a source's "Potential to Emit", which is a measure of the maximum amount of air pollution that a source can emit given all legal, practical, and physical constraints on its operation. "Potential to Emit" is a familiar regulatory concept, with a definition set forth in current Section 2-1-217. Moreover, it is a concept that succinctly captures the intent expressed in Section 2-1-234, and one that is already well-understood by the regulated community and others involved in air quality regulation such as consultants and advocates. Staff are therefore further revising the proposed amendments to Section 2-1-234 to state that a "modification" under this definition is a change at a source that will result in an increase in the source's potential to emit. This simple definition is substantively the same as the more complicated definition in the current Section 2-1-234 (which refers to increase above permitted limits or above physical capacity where there is no permit limit), but it states the definition in a manner that is much easier to understand and apply.

In addition, based in part on feedback from commenters, Staff are proposing to retain certain additional language in the definition clarifying how the concept of an increase in Potential to Emit will be applied in specific situations.

- Determining Long-Term and Short-Term PTE: Potential to Emit is a concept that applies to both long-term and short-term emissions. An increase in a source's potential to emit either short-term emissions or longer-term emissions is a modification under Section 2-1-234. Staff have retained language in the second draft amendments referencing the fact that, in establishing longer-term PTE, an hourly emissions limit on a source may be multiplied by 24 to determine the source's daily potential to emit, unless the source cannot operate at its full permitted limit for 24 hours per day. This statement simply reflects the reality that, in absence of any other legal or physical limitation on operations, if the source operated at its fully hourly maximum for the full 24 hours in a day, its maximum emissions would be its hourly maximum emissions times 24. Similarly, staff have retained language referencing the fact that a source's daily emissions limit may be multiplied by 365 to determine annual potential to emit, unless the source cannot operate at its full permitted daily limit for all 365 days per year. These methods of establishing longer-term PTE by multiplying up from a short-term permit limit only apply if they will accurately reflect the source's actual maximum longer-term ability to emit air pollution, of course. They will not apply where there is any reason why the use of short-term permit limits does not accurately represent longer-term potential to emit (e.g., if the source is constrained in some way from actually operating at short-term maximum emission rates over the longer term).

These principles are already implied in the concept of PTE, but the second draft amendments state them explicitly to make it clear how the concept will be applied in practice.

- Group Limits: A permit limit that applies to combined emissions from multiple sources does not establish an individual source's potential to emit, unless the limit imposes an effective, legally enforceable limitation specifically on the emissions from the individual source. As such, a permit limit applicable to multiple sources will not in most cases be determinative in applying the definition of "modification". For example, if a boiler is subject to a limit applicable to the combined emissions of the boiler and nine other sources, the facility could implement a change at the boiler to double its capacity and related emissions, and yet could keep the same group limit applicable to the ten sources combined. In such a situation, the doubling of the size of the boiler should be treated as a "modification" and subject to NSR review, even if the facility keeps the same overall group limit. Again, this is a principle that is already implied in the concept of PTE, but the second draft amendments state it explicitly. In this scenario, the boiler's individual PTE is obviously being increased, even if the group permit limit is unchanged.

  The one exception is where a group limit does in fact impose an effective limit specifically on the emissions of an individual source, for example by imposing a bottleneck on facility operations that establishes the maximum rate at which the source can be operated. In such a case, the group limit does in fact establish the PTE,[32] and any increase in this PTE will be a "modification" under 2-1-234.

- Determining Physical Capacity as PTE: As noted above, where a source's maximum emissions are not limited by any enforceable permit condition, the source's PTE is determined by its maximum physical capability to emit air pollutants given its applicable design and operational characteristics. The second draft states explicitly that in such a situation, the source's PTE will be determined by the most relevant and reliable technical information available regarding the source's operation, which may include design information, engineering specifications, or other information. The particular information used in an individual permitting situation will depend on the facts and circumstances of each individual case.

- "Bottlenecked" Sources: The "potential to emit" concept takes into account both (i) direct limitations on a source's ability to emit air pollution resulting from the source's own physical capacity, and (ii) indirect limitations on the source's actual effective capacity as a result of the capacity of any upstream or downstream process. Where a source cannot run at its full, maximum capacity because its rate of operation is limited by the capacity of some other process

[32] Obviously, there are a number of factors, both legal and technical, that can constrain a source's potential to emit under different circumstances. In the above example, the group limit is the factor that is determinative in establishing the potential to emit because this is the limitation on emissions that must be relaxed in order to accommodate the modification at the source. In other contexts, there may be other factors constraining emissions that are the determinative factors for establishing the source's PTE and determining whether a change constitutes a "modification". If one of those other constraints is relaxed, so as to increase PTE, that is a modification even if the group limit does not change.

that it depends on, the source's PTE is based on the maximum rate of operation that the source can achieve taking into account this limitation imposed by the other process. This situation is referred to as a "bottleneck" in the production process. The source's PTE is the maximum emissions it can achieve as limited by the "bottleneck"; and any increase in such PTE because of the removal of a "bottleneck" constitutes a "modification" under the definition in Section 2-1-234.

Although these concepts are already inherent in the basic concept of "Potential to Emit", the District is including language in Section 2-1-234 to state clearly that they apply for purposes of determining whether a change at a source increases the source's PTE and is thus a "modification".

With these further revisions in mind, which Staff are making in the second draft of the proposed amendments, we now turn to the comments received on these issues.

Comment IV.E.2.a.1. – "NSR Permit Limits": As noted above, the first draft used the term "NSR Permit Limits" to describe the type of enforceable emissions limits that would be credited as establishing a source's potential to emit. Commenters expressed a great deal of concern about this term, stating that no guidance is provided on how to determine if a limit was established under Regulation 2-2 as an NSR permit limit. The commenters also stated that using this term would eliminate the possibility that a Title V permit limit could be used in determining whether a modification will occur.

Response: As noted above, Staff agree that the original approach in the first draft had drawbacks and could be improved upon. Staff have therefore revised the proposed amendments in the second draft and have removed this term. Instead of focusing on whether a permit limit was imposed as part of NSR review, the definition will focus on whether the permit limit establishes the source's potential to emit. Potential to emit is the relevant concept embodied in the current "modification" test, and so Staff have used that concept as the touchstone for the revised definition as well. Permit limits will therefore be relevant to whether a change at a source is a "modification" to the extent that they establish the source's potential to emit. Any permit limit can establish a source's potential to emit, regardless of how and why it was imposed, as long as it (i) is legally enforceable and (ii) actually reflects the maximum emissions the source is legally and physically capable of emitting.

Using this revised approach will avoid debates about whether a permit limit was imposed as an NSR limit or not. Instead, any permit limit that is legally enforceable will form the basis for determining whether a change at the source is a "modification" (unless there is some other reason that some lower emissions level reflects the source's actual maximum capacity to emit air pollution, e.g., a physical bottleneck that limits to source's actual maximum emissions to some level below its permit limit). If there is some emissions level specified in a permit that is not an enforceable limit on emissions (e.g., emissions levels of certain grandfathered sources as reflected in Table II of such sources' Title V permits), then such levels do not establish the source's Potential to Emit and are not relevant to whether there has been a "modification". Instead, in such cases the "modification" test will look to whatever permit limits apply to the source that are legally enforceable; or in the absence of such enforceable permit limits, the source's actual, physical maximum capacity to emit air pollution. Focusing on the question of legal

enforceability of a permit limit, which is inherent in the concept of "potential to emit", will remove the potential for ambiguity and confusion that these commenters were concerned about with respect to the "NSR Permit Limit" terminology.[33]

Comment IV.E.2.a.2. – Group (or "Bubble") Limits: In the first draft, the proposed amendments to Section 2-1-234 made clear that in determining whether a change at a source is a "modification", a permit limit applicable to a source will form the basis for the "modification" test only if it specifically limits the emissions from that individual source. The draft language stated that if a permit limit applies to the combined emissions from multiple sources, then such a limit would not be used for determining whether there is a "modification" (unless the limit imposes an effective limit on emissions from the individual source by itself).

This proposal generated a number of comments stating that the District should allow group limits that apply to combined emissions from multiple sources – or "bubble limits" as some commenters called them – to be used as the test for whether a change constitutes a modification. These commenters stated that many sources have permits with "bubble limits" that were established in order to allow for operational flexibility. These commenters suggested that where there is a bubble limit, a facility should be able to make any changes to any of the sources subject to such a bubble limit without having the change being a "modification" and subject to NSR review.

One commenter suggested that not allowing these bubble limits to be used in the "modification" analysis would be "an illegal taking of a vested right." It noted that it has "bubble limits" in some of its permits, and suggested that if the District does not provide for such limits to be used in the test to determine whether a change is a "modification" then "the rights granted by [such permits] would be negated retroactively if the amendments are adopted." This commenter noted in particular a letter from 1984 regarding a specific permit that the District issued to the commenter that the commenter contended shows an intent that bubble limits would be used as the basis for the "modification" test. The commenter suggested that the District should allow it to make any changes to any of the individual sources included under the bubble without applying NSR, regardless of any emissions increases, as long as there is no change in the overall bubble and the total emissions potential for the combined units.

These commenters contended that in specifying how group limits (or "bubble limits") will be treated for purposes of the "modification" definition, the proposed amendments would be a significant expansion of the District's NSR permitting program and will greatly increase the number of projects that will require NSR permits.

Response: Staff disagrees with these contentions about group limits applicable to multiple sources. These contentions would undermine the basic concept that a source is "modified" and should be subject to NSR review when its Potential to Emit is increased. If a facility implements a change at a source that

[33] One commenter suggested that the District should provide guidance on what is meant by an enforceable permit limit. Whether a regulatory limit is enforceable is a well-understood concept that does not need to be defined further. If violation of the limit creates a legal cause of action and subjects the violator to legal consequences such as penalties or injunctive relief, then it is enforceable.

increases the source's PTE, then that change should be a "modification" and should go through NSR review even if there is some overall group limit applicable to multiple sources that is not be changed. To hold otherwise would allow for very substantial changes at a source, which could greatly increase the source's capacity to emit air pollution, to escape NSR review simply because they happen to be subject to a group limit that will not be exceeded. This result would be bad policy, and is inconsistent with the language and intent of the District's NSR program.

Staff note that group limits will still be effective to provide operational flexibility at facilities that are subject to them. Such facilities can continue to operate their sources however they want to, subject to the applicable group limits. The only prohibition will be on modifying such sources – that is, increasing their PTE in some way. Thus in the example above with the boiler subject to a group limit along with nine other sources, the facility will be able to operate the boiler however it wants under the group limit, up to and including the boiler's maximum capacity (assuming the group limit is complied with). It is only if the facility wants to make some change that will increase the capacity of the boiler (and thus increase its PTE) that the "modification" definition will be triggered. At that point, NSR should appropriately be applied to review such an increase in capacity.

With respect to the comments on "vested rights" to make changes at a source subject to a group limit without NSR review, District permits do not grant any such "vested rights". As noted above, a group limit grants a right to operate permitted sources in a flexible manner consistent with the group limit; such permits do not authorize the permit holder to make a modification to the equipment for which the permit was granted (e.g., by increasing its capacity or otherwise increasing PTE). To the contrary, District regulations have long required a permit revision and NSR review for making a modification. Moreover, even if the proposed amendments were going to make some change in the way the "modification" test works (which they are not, as explained above), the District is authorized to make such changes through its regulatory authority granted by the legislature. Simply changing a regulatory definition would not impinge upon any "vested right", even if one existed.

And finally, with respect to the 1984 letter cited by the commenter,[34] that letter notes that the "bubble" is being imposed to provide operational flexibility for the facility. It does not say that the facility can make any and all changes to any source as long as the bubble limit is not changed. The letter does note that the "bubble" "will serve as a baseline for future refinery modifications", which is correct and is consistent with the foregoing discussion. For one, the "bubble" emissions rate forms a baseline for providing additional offsets in connection with future modifications. Offsets would only need to be provided above the facility's emissions already authorized under the bubble. Similarly, in appropriate cases the "bubble" emissions limit can also be relevant to determining PTE for individual sources as described above. In this context, it is undoubtedly "a baseline" for determining PTE, although it is not necessarily the only baseline that is relevant. What the letter does not say is that the "bubble" will be the only baseline ever to be used for any purpose, or that the facility is authorized to make any change

[34] Letter from M. Feldstein, BAAQMD, to Judy Moorad, Shell Oil Co. (Nov. 30, 1984).

whatsoever at any source without undergoing NSR review as long as the "bubble" limits are not changed. That is not how the definition in 2-1-234 is intended to work.[35]

Comment IV.E.2.a.3. – Support for Clarifying "Modification" Language: At least one commenter supported Staff's efforts to provide more certainty and clarity in the rule language. The commenter noted confusion even among District staff over how the "modification" definition is intended to function, and stated that this shows that there is additional need for clarity. The commenter stated that the District should adopt clear rule language and should provide specific examples in the Staff Report to make sure that everyone understands how the rule language functions.

Response: Staff agrees that the current "modification" definition should be improved. Based on input received, Staff believe that the most appropriate way to clarify this definition is to state clearly and succinctly that a "modification" is a change at a source that increases the source's potential to emit. As noted above, "Potential to Emit" is a well-defined and well-understood regulatory concept. In addition, to provide further guidance, Staff are proposing additional language in Section 2-1-234 to describe how the concept is applied in specific situations. That additional language in the regulation, as well as the discussion that Staff is providing in the rule development documentation (i.e., this response to comments document, the Staff Report that will be prepared, etc.), will provide the certainty and clarity that the commenter is seeking.

Comment IV.E.2.a.4. – A "Modification" is an Increase in Potential to Emit Any Pollutant: Some commenters raised a question regarding whether an increase in the potential to emit of any pollutant would cause a change to be a "modification" – or whether it is just an increase in the potential to emit of pollutants subject to permit conditions. As an example, commenters asked how the regulations treat a source that may emit 6 different regulated air pollutants, but where only 2 of them are subject to emissions limits in the permit and the other 4 do not have specific limits. These commenters asked how the "modification" definition would be applied in this situation. They suggested that as long as there is no increase in the permitted emission level of the 2 pollutants with permit limits (i.e., no increase in the PTE of these two pollutants), then a change would not be a "modification" regardless of what happens to emissions of the other 4 pollutants.

Response: A "modification" is an increase in the PTE of any pollutant, not just pollutants subject to emissions limits. If there is no emissions limit applicable to a pollutant, then the PTE for that pollutant is determined by the source's maximum physical ability to emit the pollutant given its design and operational constraints and other similar considerations. If the source will increase its PTE for such a pollutant, it is a "modified" source under Section 2-1-234. Any such increase in PTE for any pollutant that a source emits constitutes a "modification" under Section 2-1-234.[36]

[35] Note also that to the extent that a letter from a District staff person is inconsistent with a regulation adopted by the District's Board of Directors, the regulation trumps the letter.

[36] Note, of course, that there are further criteria that must be satisfied before a "modified" source is subject to any substantive regulatory requirements for any particular pollutant as specified in Regulation 2-2. If a source is "modified" under Section 2-1-234, that just means that one has to proceed to Regulation 2-2 to determine what, if

Comment IV.E.2.a.5. – Concerns About Using "Potential to Emit" Concept: A commenter noted Staff's explanation that where there is no enforceable permit limit on a source's emissions, the "modification" test depends on the source's actual physical capacity to emit air pollution to establish the source's PTE. The commenter objected that this measure of actual, physical PTE "is ultimately subjective and [its] application is at the discretion of the District."

Response: Staff disagree that "Potential to Emit" is a subjective concept. Where there is no enforceable permit limit in place, PTE is determined by the source's actual, physical maximum capability to emit air pollution. This is an objective engineering concept based upon the physical, operational, and design characteristics of the equipment at issue. In certain cases there may be an element of engineering judgment that goes into determining the source's PTE, but that does not make the concept "subjective". This is true of many engineering concepts. In such cases, the District is required to exercise sound engineering judgment in a reasonable manner consistent with accepted, objective engineering principles. Doing so does not make the concept "subjective".

Comment IV.E.2.a.6. – Using Hourly Emissions to Determine Daily PTE and Daily Emissions to Determine Annual PTE: Several commenters voiced concerns about removing language regarding multiplying hourly limits by 24 to calculate daily PTE and multiplying daily limits by 365 to calculate annual PTE (where appropriate). Commenters stated that if such references are removed from the definition, that may be taken as an affirmative indication that such PTE calculations are prohibited under the revised definition. In a related concern, one commenter stated that the definition did not indicate how daily emissions should be calculated.

Response: The concept of "Potential to Emit" inherently encompasses the situation where a source's effective maximum daily emissions are its hourly maximum emissions times 24, and where maximum annual emissions are daily emissions time 365. In absence of any other effective restraint on emissions, a source cannot emit more in a day than its hourly emissions times 24 hours, and cannot emit more in a year than its daily emissions times 365. In this context, hourly emission limits provide a backstop for daily PTE, and daily limits for annual PTE, in cases where there are no more restrictive limitations on a source's emissions. Staff agree, however, that it would be appropriate to make an explicit statement to this effect in the definition of modification to make clear how the concept works. Staff are also including language to note the limitations of this principle, in that it does not provide a method to calculate PTE where there is some indication that the source cannot operate at its maximum rate 24 hours per day or 365 days per year.

Comment IV.E.2.a.7. – Using "Historical Operating Records" to Determine PTE: Several concerns were raised about including a reference to using "historical operating records" as a basis for determining a source's actual, physical capacity to emit air pollutants. These comments requested clarification that it is a source's actual maximum capacity that determines PTE in such cases, not the highest documented

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any, of those substantive requirements apply. Note also that many requirements applicable to modified sources apply on a "pollutant-specific basis", meaning that if a source is modified not all of the source's pollutants will necessarily trigger such requirements. Only the specific pollutants that exceed the applicable regulatory threshold levels will be subject to the requirements.

emissions or throughput that the source has experienced historically. The comments suggested that the definition use more generic catch-all language such as "other reliable technical information" to address this situation, which could include historical operating records if they really are appropriate for determining maximum capacity. The comments also suggested that some specific examples be included in the Staff Report illustrating how this concept would be applied in practice.

Response: The commenters are correct that a source's PTE is based on its maximum potential emissions, and not necessarily the highest documented emission or throughput rate it has achieved in the past. In certain cases where no more reliable information is available, however, documented throughput or emissions can provide a useful approximation of PTE. For example, where a source's PTE is limited by a bottleneck such that design capacity and similar information do not provide a measure of PTE, and there is indication that the source has in the past actually operated at its highest bottlenecked capacity, historical operating records documenting throughput and emissions at that point can be useful in determining the source's effective PTE. That said, there is no reason to elevate historical operating records over any other type of relevant information that could provide the basis for a PTE calculation in such a situation. Staff agree that the more generic catch-all term "other reliable technical information" better captures the universe of information that can be used to determine PTE.

Comment IV.E.2.a.8. – Applying "Modification" Definition For Multiple Pieces of Equipment That Operate Interdependently: A commenter that operates combined-cycle power plants raised a question about how the "modification" definition should be applied for the specific equipment used at such plants. The commenter's concern involved the situation where a combined-cycle power plant's gas turbine and its associated Heat Recovery Steam Generator (HRSG) are covered by a common emissions limit that applies to emissions at the exhaust from the combined turbine/HRSG train. The commenter's concern was about making an efficiency improvement to the turbine to allow it to burn more fuel and produce more electricity, resulting in a reduction in emissions per unit of power produced. The commenter suggested that if it agreed to maintain its existing (pre-change) emissions limits, then it should be allowed to undertake the project without being treated as a "modification" and thus without having to go through NSR permitting. The commenter was concerned that the current "modification" definition would not be applied in this way, and would treat the turbine and the HRSG as separate "sources". Treating the turbine and HRSG as separate sources would mean that such a change is a "modification", because the turbine's emissions will increase even though the combined turbine/HRSG permit limits will not change. The commenter offered some proposed regulatory language that would specify how to treat what the commenter called a "dependent source", which would be a source like the HRSG in this example whose operation is dependent on the gas turbine and can operate only when the main source is operating. The commenter's proposed language would essentially treat a combined emission limit on the principal source and the dependent source as a single-source limit, and an increase at the principal source or the dependent source would not be a "modification" as long as the combined limit would not change.

Response: Staff disagree that the "modification" definition needs to be amended to apply to this specific situation involving a combined-cycle gas turbine/HRSG combination. The current definition can be applied to this situation to achieve an appropriate result. If the turbine/HRSG combination really

should be treated as a single unit for purposes of determining whether emissions are increasing and should be subject to NSR review as a "modification", then the District can regulate them as a single "source" and apply the definition of "modified source" to the combined equipment as a single unit. If that is the appropriate regulatory treatment, then the "modification" test will apply to the combined emissions limit applicable to the "source", i.e., the turbine/HRSG combination. Conversely, if the turbine and HRSG really should be treated as separate units for purposes of determining whether there is a modification, then the District can regulate them as separate "sources" and apply the "modification" definition to the turbine and HRSG separately.[37] (Note that the definition of "source" in Regulation 1-227 is sufficiently flexible to address both of these situations, where appropriate.) Which approach is more applicable in a given situation at a given facility will depend upon the specific facts and circumstances of each individual facility and the equipment it uses. Such determinations will therefore need to be made on a case-by-case basis for each facility. But the regulatory language as currently proposed will allow the District to apply the definition in an appropriate manner, under whichever alternative should be applied in a given situation. There is no need to add additional regulatory language to make the definition applicable to this type of facility.

b) Potential Incorporation of Federal "Major NSR" Modification Test in Section 2-1-234

Comment IV.E.2.b. – Solicitation of Input on Incorporating Federal "Major NSR" Test in Modification Definition in Section 2-1-234: As noted above, the District's current definition of "modification" is based on an increase in short-term or long-term Potential to Emit as a result of the change being implemented at a source. During discussions regarding the first draft of the proposed amendments, several observers questioned whether this definition is consistent with general NSR principles. They pointed out that in general the federal NSR program bases its applicability on whether there will be a "significant" increase in emissions compared to an actual emissions baseline. That is, the federal NSR program measures the emissions increase resulting from a physical change or change in method of operation of a source compared to its actual emissions in the past. If the future emissions will be higher than actual emissions in the past by more than a significant amount, then the change becomes a "major" modification subject to NSR requirements. The District's test, by contrast, is based on an increase in the source's maximum permitted emissions level, not the levels at which it actually emitted in the past. (See discussion above for further detail.) These observers questioned whether the District's test for major NSR applicability is as stringent as, or more stringent than, the federal test for major NSR applicability, which is required in order for EPA to approve it under the Clean Air Act.

Response: Based on an evaluation of how the respective Major NSR applicability tests work in practice, District staff have concluded that the District's test is at least as stringent as the federal test, if not more stringent.

[37] Note that in such a case, changes could still be implemented at each individual element of the combined turbine/HRSG train without constituting a "modification" as long at the changes do not result in an increase above the levels specified in Section 2-1-234.

First, the District has no "significance" threshold below which a modification is not subject to major NSR requirements. Under the federal test, a modification becomes "major" and thus subject to major NSR requirements if it will result in a "significant" increase, which is an amount that depends on the individual pollutant but is generally in the range of 10-100 tons per year. Under the District's test, there is no such leeway for modifications less than the "significant" level to escape NSR permitting. *Any* increase in a source's PTE is a "modification" subject to NSR permitting requirements, no matter how small.[38] The District's test will therefore subject changes implemented at a source to NSR in many situations where they would be exempt under EPA's test.

Second, the District's modification test looks to short-term as well as annual emissions. An increase in a source's *daily* potential to emit is a "modification", not just an increase in its annual emissions (*i.e.*, tons per year). This distinction also means that the District's test will cover additional scenarios where EPA's test would not require major NSR permitting, such as where a source does not operate all year long and can limit its hours of operation to keep annual emissions down. Such a source could double its firing capacity and burn twice the amount of fuel as before, but escape major NSR permitting if it can keep its annual emissions low because it does not operate for the full year. The District's test would require such a major increase in capacity to obtain an NSR permit as a "modification"; EPA's test would allow such a change without requiring a major NSR permit review as long as there is no "significant" increase in annual emissions. If the facility can keep its annual emissions down to a level where there is no significant increase above its historical annual emission levels, then it would not need to implement any major NSR requirements under EPA's test. The District's test is more stringent in this respect as well.

Third, the District applies its "modification" test more narrowly and looks only at increases from an individual project at an individual source. EPA allows for "netting" of prior emissions increases and decreases as a way to avoid having a "significant" emissions increase, and it allows for emissions to be averaged across all sources at a facility using "Plantwide Applicability Limits" (PALs). The District does not allow such accounting mechanisms to be used in determining whether a physical change or change in the method of operation at a source is a "modification" that must go through NSR permitting.[39] This

[38] There is a *de minimis* threshold for "modifications" for toxics emissions, but these are not subject to NSR. For pollutants regulated under the federal NSR program, the District's test does not have any *de minimis* exemption based on a "significant" increase level. Note also that certain NSR elements have applicability thresholds, so not every NSR requirement will be triggered and implemented in every NSR permit. Any increase in PTE will be a "modification", however, and will require an NSR permit and an evaluation to see what NSR requirements are triggered for that permit.

[39] Note that the Staff are proposing to incorporate the netting concept for purposes of PSD permitting and some related provisions. But this would not apply to determining whether a change at a source is a "modification" under the current Section 2-1-234 definition. That test looks only at whether the individual project at the individual source will increase the source's PTE. Once it is determined that a project will be a "modification" under Section 2-1-234 and will thus have to get an NSR permit under Regulation 2-2 (which applies to new and "modified" sources), there are various applicability tests to see what specific NSR requirements will apply to that permit. Some of these applicability tests incorporate concepts such as netting (although some do not, such as the District's BACT requirement). But for comparing the stringency of the District's "modification" definition in Section 2-1-234 with EPA's NSR triggering test, the District's "modification" test does not allow for any of these averaging provisions that allow projects to escape major NSR permitting review altogether under EPA's test.

is a further distinction that makes EPA's applicability test less stringent that the District's for facilities that can take advantage of these averaging provisions.[40]

Moreover, EPA's track record in approving the District's "modification" definition suggests that EPA has found the definition to be at least as stringent as the federal NSR applicability test. The District's definition has been explicitly based on a "potential to emit" concept since at least 1994, when the District adopted what was then Section 2-2-223, a definition of "Modified Source or Facility". That definition defined modification based on an increase in "permitted emission level", which is essentially the same PTE concept that the District uses today in Section 2-1-234. EPA approved that definition into California's SIP as part of its overall approval of the 1994 version of Regulation 2 on January 26, 1999 (*see* 64 FR 3850), and the substance of the definition has not changed between then and the current version (with respect to the PTE test, at least).[41]

Furthermore, EPA has also approved similar tests used by other California air districts, further suggesting that this PTE test is at least as stringent as the federal approach and approvable by EPA under the Clean Air Act. The Sacramento Metropolitan Air Quality Management District's Rule 214 (Federal New Source Review), for example, defines "modification" in Section 225 as a physical change or change in the method of operation that "would necessitate a change in permit condition or result in potential to emit being higher than the historic potential emissions." This "modification" test works in exactly the same way as the District's "modification" test, as a first step in determining whether any NSR permit requirements are potentially applicable. If a change at the source results in an increase in potential to emit compared to historic potential emissions, then one needs to look at the relevant major NSR provisions in that district's rules to see which are applicable. The threshold test for whether a physical change or change in the method of operation at a source will require NSR permitting – i.e., whether such a change is a "modification" – therefore works in exactly the same manner as the District's threshold test in Section 2-1-234.[42] EPA approved Sacramento's Rule 214 less than a year ago.[43] EPA has also approved the San Joaquin Valley Air Pollution Control District's Rule 2201, Section 3.25, which

[40] Staff also note that the District has much more stringent applicability thresholds for many of its NSR provisions, such as the 10 lb/day BACT threshold. The District's NSR program overall is very robust and clearly more stringent than the federal minimum requirements, regardless of whatever conclusions one might draw regarding the "modification" test.

[41] District Staff researched the available records regarding any discussion that EPA may have provided on this issue in connection with approving the District's NSR rules, but were not able to find anything. But EPA's ultimate conclusion that the District's program is as stringent as or more stringent than the federal requirements is demonstrated by the fact that EPA did approve it as satisfying all CAA NSR requirements.

[42] Note that in certain situations Sacramento's rules define "historic potential to emit" in terms of actual emissions, not potential to emit. See Sacramento Rule 214, Section 221. In most circumstances the potential to emit test will apply, however. But more importantly, the fact that EPA approved Sacramento's use of the "potential to emit" test in any circumstances demonstrates that, when applied as it is here, it is at least as stringent as the federal NSR applicability test.

[43] See Revisions to the California State Implementation Plan, Sacramento Metropolitan Air Quality Management District, Final Rule, 76 Fed. Reg. 43,183 (July 20, 2011).

defines "modification" in terms of changes "that would necessitate change in permit conditions" – i.e., an increase in permitted emissions, not an increase based on actual emissions.

For all of these reasons, Staff have concluded that the "modification" test for applicability of the NSR requirements in Regulation 2, Rule 2 is at least as stringent as, and likely more stringent than, EPA's federal minimum requirements. District Staff met with representatives from EPA Region IX to discuss this issue and to solicit their concurrence with the District's understanding, but have not received a response as of the publication of this document. Staff do not expect that EPA will disagree with the District's evaluation as set forth above, given the agency's approval of the District's current "modification" test and the other similar tests used by other California air districts. Obviously, if EPA takes the position now that California's air districts need to make a major change in the way they approach applicability of their NSR programs, that would be a major policy shift that will have significant ramifications beyond just the San Francisco Bay Area. Staff would like to await EPA's response and consider their before making any final decisions as how to proceed on this issue, however.

For purposes of the second draft, therefore, Staff are not proposing any substantive change to the Potential to Emit concept contained in current Section 2-1-234.[44] Staff would like to solicit further input from all interested parties on this issue, however, given the fact that it got relatively little discussion in the comments on the first draft as well as the fact that EPA staff have not had time to provide the District with input as of this time. Staff are therefore inserting language into the second draft for Section 2-1-234 – simply as a placeholder for further discussion – that would incorporate the federal test as a "backstop" that would apply in any situation where the federal test may more stringent than the District's current test. This "federal backstop" element to the Section 2-1-234 definition would be in Section 2-1-234.2, and would incorporate by reference the federal NSR "major modification" tests. Incorporating such a "federal backstop" element would address any potential concern that there could be any situation in which the federal test would be more stringent. In most cases, where the District's test would be the more stringent, that test would continue to apply and render a change at a source a "modification" based on an increase in PTE. If there is any situation where a change at a source would not be a "modification" under the District's test, but would be a "major modification" under EPA's test, the second element of the definition would apply and the change would be a "modification" subject to NSR permitting under Regulation 2, Rule 2.

As noted above, District Staff do not believe that the District's test is any less stringent than the federal test, and in fact believe that it is more stringent than the federal minimum requirements under the Clean Air Act. For these reasons, Staff do not see any need to change the way the regulation currently works. Staff are highlighting this issue at this point, and are providing the placeholder language in the second draft of Section 2-1-234, simply so that interested parties can see what it would look like if the District were to add such a requirement. **PLEASE NOTE THAT THIS LANGUAGE IS BEING INSERTED FOR DISCUSSION PURPOSES ONLY AND IS NOT A PROPOSAL BY DISTRICT STAFF AT THIS POINT. DISTRICT**

[44] The second draft obviously contains significant revisions to the regulatory language in Section 2-1-234, but staff are not proposing any change to the fundamental concept set forth in that section that a "modification" is an increase in a source's potential to emit.

STAFF ARE SOLICITING FURTHER INPUT ON THIS ISSUE, AND WILL MAKE A FINAL DECISION ON WHAT APPROACH TO TAKE AND WHAT SPECIFIC REGULATORY LANGUAGE TO USE AFTER HEARING FROM ALL INTERESTED PARTIES, INCLUDING EPA STAFF. The District encourages all interested parties to review this issue and the placeholder language in Section 2-1-234 and to provide input to District staff on what would be the most appropriate way to address this issue.

c) The "Alteration" Definition in Section 2-1-233

An "alteration" is defined as a change at a source that may affect emissions and therefore needs an Authority to Construct, but one which does not increase emissions in such a manner as to fall within the definition of "modification". The District added the requirement to obtain an Authority to Construct for an "alteration" to an existing source in 2000 in order to review such changes and confirm that they are not, in fact, alterations (and not modifications that would have to go through NSR permitting). The District proposed certain amendments to the current definition in the first draft, which generated a number of comments.

Comment IV.E.2.c.1. – Clarification on What Kinds of Changes Constitute an "Alteration" Requiring an Authority to Construct: A number of commenters asked for clarification on what kinds of changes at a source would be an "alteration" that would require an Authority to Construct. Many commenters noted that the first draft included "changes in throughput or hours of operation" in the definition of alteration, and asked whether they would be required to apply for and obtain an authority to construct if their hours of operation went up or down simply because of demand, even if there would not be any increase in permitted emissions. (An increase in permitted emissions, of course, would be a "modification" and would clearly require an authority to construct and NSR review.) These commenters asked staff to consider and provide guidance on exactly what kinds of changes at a source would require an authority to construct, noting concerns about making this requirement too broad and requiring large numbers of permit applications for changes that, by definition, do not involve emissions increases. They suggested that an "alteration" should be limited to hardware changes, and not changes in throughput based solely on demand. Some also suggested that the District should retain the language in the current "alteration" definition regarding specific types of changes that are or are not treated as "alterations" (e.g., certain changes in process stream composition, replacement of burners with non-identical burners, etc.) Other commenters suggested that it would be useful to provide examples or a flow chart in the Staff Report about what kinds of projects should be treated as "alterations" requiring an Authority to Construct.

Response: Staff agree with the concerns about being overly inclusive in requiring permit applications for situations that do not constitute "modifications" and are therefore not subject to NSR review. Requiring too many permit applications for "alterations" in these situations would overwhelm the permitting system without achieving any commensurate benefit in air quality. Staff have concluded that the heart of the concerns being raised surrounding this issue involve the addition of the language about requiring permit applications for "changes in throughput or hours of operation". In developing the first draft, Staff imported this language from the "modification" definition so that the language in the "modification" definition and "alteration" definition would track each other. Staff have now concluded that doing so is not appropriate. Changes in throughput and hours of operation are clearly important

and must go through NSR review if they will result in an increase in emissions as specified in Section 2-1-234. Those types of changes require a permit application because they are subject to NSR review. For changes in throughput and hours of operation that will not result in an increase as specified in Section 2-1-234, however, those types of changes are less important because they are not subject to any NSR requirements (because they are not "modifications"). Moreover, facilities make such changes all the time, and requiring them to obtain an Authority to Construct every time they wanted to implement such a change would be unworkable from the perspective of the District's permitting program, not to mention highly burdensome and restrictive on facilities' operations. Staff are therefore removing the language regarding "changes in throughput and hours of operation" from the definition of "alteration" in the second draft. Only physical changes and changes in the method of operation will be treated as "alterations" requiring an Authority to Construct. These are the types of changes that are most important for the District to review, because they have the greatest potential to increase the capacity of a source in a manner that could result in a "modification". The District needs to review such situations to ensure that the change is not in fact a "modification" that should be subject to NSR permitting.[45]

Regarding language specifically identifying certain types of changes as constituting or not constituting "alterations", Staff are not inclined to enumerate a specific list for several reasons. One is that it is difficult to state with certainty that a certain type of project will categorically be an "alteration" in all situations that may arise in the future. Although one can predict generally how a certain type of project will likely be treated, specifying whether a certain type of project will or will not be an "alteration" in every circumstance can result in problems when the provision is implemented in practice. Another is that it is difficult to come up with a comprehensive list of different types of projects. Developing a truly comprehensive list is most likely impossible, and it will be in the unanticipated situations that are not on any such list where the difficult implementation questions will most likely arise. For these reasons, Staff are not proposing to include a specific list of projects that are or are not alterations, but instead is simply proposing regulatory language that states the rule that can be applied in each situation regardless of the type of project at issue.

Staff do agree, however, that it would be appropriate and beneficial to include some specific examples in the Staff Report and related guidance documents of the types of projects that will, generally speaking, be treated as alterations (or not). Such guidance can be very helpful in understanding how the rule will be applied, without being as hidebound and prone to unintended consequences as formal regulatory language. Staff have begun developing a list of such examples, and will continue to do so as the Staff Report is being prepared. At this point, Staff have identified the following examples of what types of changes generally would or would not need an authority to construct as an "alteration". (Note that in

[45] Note also that the definition of "alteration" includes only physical changes and changes in the method of operation that may affect air emissions. Any such changes that are completely unrelated to air emissions do not need an authority to construct, for obvious reasons. In addition, note that routine repairs, maintenance, and cyclic maintenance that includes replacement of components with identical components never require an authority to construct under the language of Section 2-1-301. These provisions should also be kept in mind when considering what kinds of projects may need an authority to construct as an "alteration" under Section 2-1-233.

all cases, it is assumed that there would not be any emissions increase that would render the change a "modification" under Section 2-1-234.)

Examples of Alterations that require permit applications

- Burner replacement – identical or equivalent, no increase in max. firing rate;
- Changing or replacing an abatement device;
- Adding gas wells to a landfill gas collection system;
- Any change that is defined as a modification or reconstruction under NSPS/NESHAPS, even if no emission increase.

Examples of projects that do not require permit applications

- Changing coating or solvent, not otherwise limited by permit conditions;
- A decrease in throughput or production rate;
- Installing emission testing ports on a stack;
- Removing fuel oil backup capability for a furnace or boiler;
- Changing material stored in a tank, provided the new material has equal or lower vapor pressure, and it is not limited by permit condition.

Comment IV.E.2.c.2. – Imposing Permit Conditions To Keep A Change From Becoming a "Modification": Some commenters objected to the language referencing the APCO's authority to impose permit conditions in an Authority to Construct for an alteration to ensure that the project will not increase emissions in a manner that would constitute a "modification". Commenters objected to adding permit conditions of this type on the grounds that "[p]ermit conditions should only be required if there is a nexus between a project's scope and its potential emission impacts." Commenters continued that "[u]nder any regulatory context, any condition imposed must be related to a project's actual or potential impacts." Commenters stated that permit conditions of this type have not been imposed by the District in the last 10 years. Commenters were concerned that if "constraining and restrictive" conditions of this type are imposed for alterations, then such projects would not be undertaken. Commenters stated that "[t]his is particularly true when there is no methodology provided for how such conditions would be established." Commenters were concerned that this provision would lead to "permits for alterations [with] very arbitrary permit conditions and limits, which have no technical basis or basis in the context of the BAAQMD regulations," and permits with "no nexus between actual emission impacts and whether or not permit conditions are imposed." Commenters suggested that the definition should clarify that any such conditions imposed "must be related to real or potential impacts from a project and that the technical aspects of the change should be taken into account prior to imposing permit conditions." The commenters stated that conditions should not be imposed for "pollutants that are not germane to the proposed project," and that any permit conditions imposed under this language should be "tied to relevant reasons to demonstrate the change is not a modification based on the project's technical basis."

Response: The proposed language on this point clearly states the reason why such permit conditions would be imposed: "to ensure that the change authorized by the authority to construct or permit to

operate will not result in a modification under Section 2-1-234." This language makes clear that this provision for imposing permit conditions will work as a benefit to regulated sources that want to implement a change and want to ensure that such change will not be a "modification" subject to NSR review. Such sources can simply accept a permit limit so that there will be no increase above a level that would constitute a "modification" under the definition in Section 2-1-234. Using enforceable permit limits in this way to create a "synthetic" exclusion from a permitting requirement is a standard air permitting practice. Moreover, this language also makes clear that such permit conditions need to be established for the specific purpose of keeping the change from resulting in an emissions increase that will trigger the definition in Section 2-1-234. The concerns about arbitrary conditions being imposed under this language that have nothing to do with any regulatory requirement are therefore misplaced. This language, by its terms, only authorizes permit conditions that will keep a change from increasing emissions in a manner that would constitute a modification (i.e., permit conditions to ensure that there is no increase in PTE that would trigger Section 2-1-234). Such conditions by definition are "related to real or potential impacts from a project," are "germane to the proposed project," and have a "nexus" to actual emission impacts, because they are imposed to ensure that emissions will not increase and be subject to NSR review as a "modification". This regulatory language as initially proposed embodies sufficient safeguards to ensure that arbitrary permit conditions are not imposed, and it is not necessary to restrict the District's permitting authority further to address these concerns.

Comment IV.E.2.c.3. – Alterations Not Subject to NSR Requirements: A commenter requested that Staff confirm that Reg. 2-2 NSR provisions, including the "PSD Project" definition and associated PSD requirements, do not apply to alterations. The commenter suggested that Staff add explicit language to this effect in Section 2-2-101.

Response: The commenter is correct that "alterations" are not subject to NSR requirement in Regulation 2-2. All of the substantive requirements in Regulation 2-2 apply to new sources and to modified sources, but not to alterations. This includes the definition of "PSD Project", and thus all of the PSD requirements that apply by their terms to "PSD Projects". This principle is clear from the language in Regulation 2-2 making the requirements applicable to "new and modified sources" and excluding "alterations", and it is not necessary to add clarifying language to Section 2-2-101. To the extent that any clarification is necessary, it is being provided here and will also be included in the Staff Report for the proposed amendments.

3. "Portable" Definition

The term "portable" is referenced in two different contexts related to Regulation 2 permitting: (1) portable equipment registration under CARB's Portable Equipment Registration Program (PERP); and (2) District permitting of equipment that may end up being used at multiple locations within the Bay Area under District Regulation 2-1-413.

ARB's PERP program is designed to address portable equipment (primarily diesel-fired equipment) that may be moved around among different air districts around the state. Such equipment includes portable generators that are used in multiple locations, diesel-fired construction equipment that may be moved

from one construction site to another as needed, rental equipment that may be rented out to different users in different locations, and the like. Instead of requiring such equipment to get multiple permits from the multiple different districts in which it may operate, ARB addresses such equipment on a state-wide level by providing a mechanism for it to obtain a single registration document that will allow it to operate anywhere within the state. Substantively, the PERP program requires such equipment to comply with ARB's Airborne Toxic Control Measure (ATCM) requirements, among others. Procedurally, the owner/operator of such equipment registers it with ARB based upon a certification that it complies with such requirements, and that registration then allows the equipment to be operated in any air district without having to get a district-specific permit.[46] The central element of the PERP program is that the equipment must be portable: If the equipment is not such that it could be moved around frequently from one district to another such that getting individual district permits would be burdensome, then it makes more sense to have it obtain a permit from the specific air district in which it will be operating.

The District's permitting provisions for sources that will be used at multiple locations is somewhat different. That program applies for sources that are not PERP-registered – and therefore need to obtain a District permit – but that may end up being operated at different locations within the Bay Area. The District's rules provide for issuing permits for such operation in multiple locations in Regulation 2-1-413. That provision provides for permits that allow operation at any location within the Bay Area, as long as the source satisfies certain requirements to ensure that it will not have any significant air quality impacts no matter where it is used – for example, the source must satisfy the toxic risk screen requirements of Regulation 2-5, it cannot be used within 1000 feet of a school, etc.

Currently, Regulation 2-1 uses the term "portable" to define the types of equipment that are eligible under both of these two separate programs. The exemption in Section 2-1-105 for PERP-registered equipment applies to "portable" equipment; and the District permitting provisions for equipment that may be used in multiple locations in Section 2-1-413 also applies to "portable" equipment. It is likely that in adopting a single, common definition for use under both programs, the District felt that using a single definition would simplify the implementation of both programs.

District staff have now come to realize, however, that making both of these programs apply to "portable" equipment, and using a common definition for that term, actually complicates the implementation of these programs. This is because the purpose behind the two programs, and the types of permitting situations that they were intended to apply to, are in fact different. The District's provisions related to the PERP program – specifically, the exemption in Section 2-1-105 for PERP-registered equipment – were intended to exempt all equipment that is regulated by ARB under the PERP program from District permitting requirements, in order to avoid duplicative regulation of these sources. For this purpose, the key regulatory concept is whether or not the equipment is registered under ARB's PERP program. By contrast, the District's provisions for multiple-location operations – Section 2-1-413 –

[46] PERP registration supersedes local air district permitting requirements, and in the Bay Area the Air District has adopted Section 2-1-105, which explicitly exempts PERP-registered portable equipment from District permitting requirements, in recognition of the preemptive effect of PERP registration.

were intended to ensure that any source that is not permitted for a specific location is such that it will not cause any significant impacts no matter where in the Bay Area it is located. For this purpose, the key regulatory concepts are whether there would be any air quality concerns arising from a location where it may operate, such as the potential for significant toxic impacts on nearby receptors under Regulation 2, Rule 5 or operation within 1000 feet of a school. Although there are likely to be similarities between these two different situations in many contexts, they are in fact different and so it does not make sense that they both have a single, common requirement that equipment be "portable" in order to be eligible for the District's regulatory provisions applicable to the two situations.

Staff are therefore changing the approach set forth in the first draft for these two provisions. In the second draft, the exemption in Section 2-1-105 now states explicitly that if equipment is validly registered under ARB's PERP program, then it is exempt from District permitting requirements. This exemption simply recognizes the fact that ARB PERP registration preempts District permitting requirements. If a piece of equipment has a valid PERP registration, it is not required to obtain a District permit as a matter of law. In practice, such equipment will still need to be "portable" in order for these provisions to apply. But the requirement will be implemented through ARB's requirement to be "portable" in order to be eligible for PERP, not through any District definition of "portable". Simply put, if equipment is portable and otherwise satisfies ARB's PERP requirement, and it is duly registered under and complies with ARB's PERP program, then it is exempt from District permitting requirements. There are no additional eligibility requirements for this exemption beyond valid PERP registration.

With respect to the District's provision for multiple-location permitting under Section 2-1-413, the second draft removes the language about such permitting being applicable only to equipment that is "portable" under the relatively narrow definition that is currently set forth in Section 2-1-220. Equipment that may be operated at multiple locations around the Bay Area may obtain such a multiple-location permit as long as it meets the substantive requirements of Section 2-1-413 designed to prevent impacts on nearby receptors no matter where the source is operated (e.g., satisfaction of toxic risk requirements under Regulation 2-5, no operation within 1000 feet of a school, etc.). Such equipment will be eligible for multiple-location permitting even if it does not meet the strict definition of "portable" used in the PERP program. For example, equipment may be operated at a single location for more than one year, which would classify it as not "portable" under PERP. Such equipment may still be moved around from one location to another at various times, however, and so it still should qualify for multiple-location permitting under Section 2-1-413 (as long as it meets all the criteria set forth in that section). Similarly, equipment that is attached to a fixed foundation and would therefore not be "portable" under the PERP definition may nevertheless be moved from one location to another at times, and so it too should qualify for multiple-location permitting (again, assuming it meets all the applicable criteria). The second draft therefore removes the language about "portable" equipment in Section 2-1-413 and focuses that provision instead on the substantive protections to sensitive receptors that are the touchstone of the District's multiple-location permitting provisions. To avoid confusion on this issue of "portability", staff are also proposing to change the title of Section 2-1-403 to "Permits for Operation of Equipment at Multiple Locations Within the District".

Finally, with respect to the definition of "portable" in Section 2-1-220, with the changes outlined above there is no longer any need for such a definition. For PERP-registered equipment under Section 2-1-105, the test for the exemption is simply whether the equipment has a valid PERP registration – there is no need for a "portability" test in the District's regulations on this issue.[47] And for multiple-location permits under Section 2-1-413, the requirements for such permits are simply whether the equipment satisfies the substantive requirements under that Section – there is no need to limit such permits to "portable" equipment, as long as the equipment satisfies all such requirements. As there is no longer any need for a definition of "portable", Section 2-1-220 is being deleted in the second draft.[48]

Note that this approach is a departure to what Staff proposed in the first draft. In the First Draft, staff focused on trying to conform the District's "portable" definition with the definition ARB uses for the PERP program. In doing so, Staff were focused on the term as it applies in the PERP context, but this approach missed the key concept underlying the multiple-location permitting provisions as described above. It was also unnecessary, as there is no need to mirror the ARB PERP definition of "portable" as explained above. Staff have therefore reconsidered the situation and are proposing the new approach reflected in the second draft.

Comment IV.E.3.a. – District "Portable" Definition vs. ARB PERP Definition: Several commenters stated that the definition of "portable" in the first draft did not track ARB's PERP definition exactly. They suggested revisions or additions so that the District's definition of "portable" would mirror ARB's treatment of portable equipment exactly. Some suggested that the District should simply incorporate ARB's definition by reference.

Response: As explained above, it is confusing to have the term "portable" apply both in the PERP context and in the context of District multiple-location permitting. The second draft therefore dispenses with the term "portable", for the reasons explained in the foregoing discussion. In the context of the PERP program, the substantive effective will be the same as incorporating the PERP definition by reference, because there will be a single "portability" requirement that will apply in that situation and it will be governed by ARB's PERP definition. Portable equipment that satisfies ARB's definition and is PERP registered will be exempt from District permitting based on the valid PERP registration.

Comment IV.E.3.b. – Other Comments Regarding "Portable" Definition: A commenter stated that the proposed changes to the "portable" definition in the first draft "could prevent permitting and require

[47] As noted above, the equipment would still have to be "portable" to be eligible for PERP registration, but that requirement would be implemented through ARB's PERP program. If PERP registration requires the equipment to be "portable", there is no need for the District's regulations to apply an additional requirement that it be "portable". The requirement that the equipment satisfy the PERP requirements fully accomplishes this end, without the need for any additional District "portable" requirement (or "portable" definition to specify how such a requirement is applied).

[48] There are a few other places in Regulation 2 where the term "portable" is used without any intent for any specific regulatory definition to apply. In these cases, the general dictionary definition will apply. This is appropriate for these situations, as the term is used in these places simply for its normal dictionary meaning and not for any special regulatory meaning.

retirement of specialty equipment, including safety equipment such as large emergency fire water pumps that are used throughout the state." The comment also stated that the provisions in the first draft would require a source that becomes ineligible for the permit exemption because it loses its "portability" to be permitted like a new source; and stated that this rule would be in contraction of the definition of new source (in 2-1-231), which excludes loss of exemption or exclusion under 2-1-424.

Response: Staff considered whether any of the District's provisions for treating PERP-registered portable equipment or equipment permitted for multiple-location operation could "prevent permitting and require retirement of specialty equipment." Staff did not find any provisions that could be applied to prevent any permitting of any such sources (assuming such sources satisfy all applicable regulatory requirements, of course). Indeed, nothing in any of the provisions on PERP-registered portable equipment or multiple-location operation would prohibit any such equipment from being permitted under the District's normal permitting procedures applicable to every other type of source, if the equipment did not qualify for the PERP-registration exemption or the multiple-location permitting provisions. Those provisions provide additional alternative regulatory mechanisms for addressing such equipment, which regulated entities may find beneficial for certain types of operations. Nothing in these provisions would prohibit any equipment from being permitted that otherwise satisfies District permitting requirements.

With respect to the comment about the need to get a District permit if the exemption for PERP registration under Section 2-1-105 becomes inapplicable, there is nothing inconsistent with the definition of "new source" in Section 2-1-232. Section 2-1-232 provides a definition of "new source" that specifies certain types of situations where an operation needs to obtain a permit, and it excludes situations where an existing operation lost its exemption as addressed in Section 2-1-424. But the loss of exemption scenario addressed in Section 2-1-424 is where a change in law or regulation eliminated the exemption, not where a change in the way the equipment is operated rendered it no longer eligible for the exemption. Thus, if portable equipment is no longer eligible for PERP registration (for example, because it is kept at the same location for more than 12 months), it is no longer exempt from District permitting requirements under Section 2-1-105 and must obtain a District permit if it is to be operated in the Bay Area. There is nothing in Section 2-1-424 that is inconsistent with this requirement.[49]

4. Definition of BACT (Consideration of Overall Environmental Benefits in BACT Determinations)

Comment IV.E.4. – Flexibility in Applying BACT To Ensure Maximum Environmental Benefit: Commenters suggested that the District should provide flexibility in applying the BACT requirement in Section 2-2-301 to ensure that it achieves the maximum environmental benefits. These comments

[49] Note also that Section 2-1-424 requires sources that lose their exemption because of changes in law to obtain a permit, just as Section 2-1-105 does for a source that becomes ineligible for the PERP exemption. (See Section 2-1-424 ("[A] source which . . . loses an exemption or exclusion because of changes in federal, California or District laws or regulations shall submit a complete permit application . . . .").) This is another reason why Sections 2-1-105 and 2-1-424 are not inconsistent.

address potential trade-offs where achieving emission reductions for one pollutant may result in increased emissions for some other pollutant. Commenters were interested in ensuring that the District's NSR regulations provide that BACT should be applied to achieve the maximum environmental benefit in such situations.

Response: Staff agree that BACT needs to be implemented to provide the maximum environmental benefits. Such considerations have always been implicit in the District's BACT definition, which contemplates the most "effective" and "stringent" pollution controls. Reading the requirements to be "effective" and "stringent" broadly takes into account broad environmental goals. Staff are proposing to reflect this principle more explicitly in the proposed amendments. The greatest amount of flexibility to consider such concerns arises when determining whether to go beyond what has already been achieved in practice by other facilities and require additional control technologies that are feasible and cost-effective. The proposed revisions will highlight how BACT determinations made on this basis should take into account considerations such as any ancillary health and environmental impacts to ensure that maximizing the broadest environmental benefit is the ultimate goal. There is less leeway where a control technology has been achieved in practice by other similar facilities, as such technologies are required as BACT. But even here there can be an element of flexibility, in particular where there are tradeoffs in cases where reducing emissions of one pollutant necessarily increases emissions of another pollutant (e.g., with NOx and CO from combustion sources). In such cases, the most stringent level of control achieved for one pollutant at a particular facility may be physically incompatible with the most stringent level of control achieved for the other pollutant at some other facility. In cases like this, it may be technically impossible to achieve both levels of control simultaneously at the same facility, and so a choice must be made. Here, there can be some flexibility in making the choice to achieve the maximum overall environmental benefit. Staff support the application of flexibility in this manner.[50]

5. Other Definitions

Comment IV.E.5.a. – "Federally Enforceable" Definition: A commenter questioned why the reference to "District permit requirements established pursuant to 40 CFR 52.21 (PSD)" is being deleted. The commenter stated that PSD permits are federally enforceable and should continue to be listed as such.

Response: The proposed amendments delete this reference because it incorrectly refers to PSD permits issued pursuant to 40 C.F.R. Section 52.21 as "District" permits. PSD permits issued under 40 C.F.R. Section 52.21 are federal permits, not District permits, and this reference is being deleted to avoid propagating this confusion. Federal PSD permit conditions are federally enforceable, of course, and they still will fall within the revised definition of "federally enforceable" because they are enforceable by the administrator of EPA. As federal permits issued under the Code of Federal Regulations, EPA is the

[50] How an individual BACT determination would be made in such a situation would necessarily have to be decided on a case-by-case basis depending on the specific circumstances. In the NOx/CO tradeoff situation described above, for example, the District would normally prioritize NOx reductions at the expense of CO reductions, because NOx is an ozone and $PM_{2.5}$ precursor and the District is designated as non-attainment for ozone and $PM_{2.5}$. What specific emission levels the District would require in a particular situation would have to be decided on a case-by-case basis, however.

primary enforcement authority. Staff do not believe that there will be any potential for confusion over whether federal PSD permit conditions are federally enforceable under the revised definitions.

Comment IV.E.5.b. – "Regulated Air Pollutant" Definition: A commenter stated that it is awkward to refer to air pollutants that are regulated under other District regulations, instead of providing a listing of specific pollutants that are "regulated". The commenter asked staff to clarify the intent of this definition.

Response: This definition is necessary because the term "regulated air pollutant" is used in two different ways in Regulation 2. For Title V purposes, the term has a specific meaning including certain specific categories of pollutants as listed in Regulation 2-6-222. In certain other places, the term is used more generally to refer to pollutants from a source for which some District regulatory requirement applies. For example, Section 2-1-113.1.2 provides an exemption for agricultural sources that do not emit any regulated air pollutant in an amount over 50 tons per year. In those cases, the use of the general term "regulated air pollutant" is appropriate because there may be many such sources throughout the Bay Area and it is not clear exactly what types of pollutants subject to District regulations any particular source may emit. Rather than try to list every individual pollutant subject to District regulations that such sources may emit, it is more appropriate simply to use the general term "regulated air pollutant" in this context. Moreover, although the term is one of general application, it does have a clear and specific definition: if there is some District regulation that applies to emissions of a pollutant, then that pollutant is a "regulated air pollutant" under this definition.

Comment IV.E.5.c. – "New Source" Definition: Section 2-1-232.1 includes as a "new source" any source constructed after March 7, 1979, but which never had a valid District authority to construct or permit to operate. A commenter stated that this provision should also address sources that were issued federal permits (e.g., a federal PSD permit). The commenter stated that sources that were constructed after 1979 without a federal PSD permit, or without what the commenter referred to as a federal Non-Attainment NSR permit issued under 40 C.F.R. Section 51.165, should also be treated as new sources under this definition.

Response: The purpose of this provision in the "new source" definition is to treat existing sources that were built without a District permit as "new" sources, so that they will have to go through District permit review and comply with current permitting standards. If a source was somehow built without a permit, it is treated as a "new" source under this provision and must go back after the fact and be permitted as a new source, as it should have been in the first place. This comment refers to sources that were built with a valid District permit but did not for some reason have a valid federal PSD permit.[51] In such cases, where the source complied with all District requirements but did not obtain a federal PSD permit as required by 40 C.F.R. Section 52.21, that is a violation of EPA's regulatory program and it is primarily a matter for EPA enforcement (in the first instance, at least). Rather than specify how such a

[51] If the source was built without a District permit and without a federal PSD permit, then it would already fall within the "new source" language in the current form of the definition. This comment addresses the situation where the source was built with valid District permits and is therefore outside of the language in current Section 2-1-232.1, but did not have a valid federal PSD permit for some reason.

violation should be treated under District regulations, it would be more appropriate to allow EPA to address any such situation that arises and determine what the best enforcement response should be. In some cases, requiring such a source to obtain a permit as a new source may be the most appropriate way to address the situation, and there is nothing in Section 2-1-232 that would prevent such a response in appropriate circumstances. But it would not be appropriate to mandate in District regulations that such a situation must be addressed by treating the source as a "new" source in all such cases. Staff are therefore proposing to leave the language as it is, which will continue to give EPA primacy in determining what enforcement response is most appropriate where a facility violates EPA's regulations in 40 C.F.R. Section 52.21.

With respect to the reference to "federal" non-attainment permits issued by EPA under 40 C.F.R. Section 51.165, this reference is misplaced. Section 51.165 is not a permitting program and EPA does not issue federal non-attainment permits for the Bay Area under this regulation. To the contrary, the District has always issued non-attainment permits for the Bay Area – i.e., District Authorities to Construct issued under the District's NSR rule in Regulation 2-2.[52] Section 51.165 sets forth EPA's minimum requirements for approval of state non-attainment NSR programs; it is not a non-attainment NSR permitting program itself. The situation where a source was built without a non-attainment NSR permit is therefore already addressed by the language referring to sources built without an Authority to Construct. The authority to construct is the non-attainment NSR permit, issued under the District's SIP-approved Non-Attainment NSR permitting program. A source that is built without such a permit is treated as a "new" source under Section 2-1-232.1 and must be permitted as such.

Comment IV.E.5.d. – "PSD Pollutant" Definition and "Split" Attainment Designations: A commenter raised an issue regarding the second sentence of the "PSD Pollutant" definition, which states that where a pollutant is subject to multiple standards, it is a "PSD Pollutant" only for the standard(s) for which the Bay Area has not been designated as non-attainment. The commenter stated that where there are multiple federal NAAQS for a pollutant, and the region is in attainment of one and non-attainment of another, the substantive elements of PSD are inapplicable to that pollutant under 40 C.F.R. § 52.21(i)(2). The language in the "PSD Pollutant" definition confusingly suggests that where there is such a "split designation", PSD requirements would still apply for that pollutant for some purposes because of the attainment part of the "split designation". But this is not the case, per 40 C.F.R. § 52.21(i)(2). The commenter noted that the first draft of the PSD provisions does correctly recognize this situation in the explanatory note to the "Significant" definition, but stated that the language in the "PSD Pollutant" definition seems contradictory, could cause confusion, and should be removed. The commenter suggested referencing only the situation where there could be a "split" designation involving attainment of a federal NAAQS and non-attainment of a California ambient air quality standard.

[52] For the narrow situation where federal permits issued by EPA for non-attainment pollutants under 40 C.F.R. Part 51, Appendix S, during the interim period while the District is developing its own non-attainment NSR requirements, Staff's response would be the same as for federal PSD permits issued by EPA. If a facility is built in violation of any applicable Appendix S permit requirement, EPA should determine the appropriate enforcement response in the first instance, and the District's regulations should not try to dictate what such a response should be.

Response: Staff agree that the "PSD Pollutant" should be clarified in this manner. If there are multiple federal NAAQS applicable to a pollutant, and the Bay Area is designated as non-attainment for one of the standards, then the substantive requirements of the PSD program are inapplicable for that pollutant under 40 C.F.R. Section 52.21(i)(2) and there is no need to address the distinction in the definition of "PSD Pollutant". There is still a need to address the situation where there may be a California standard and a federal standard and the Bay Area is designated as attainment for one and non-attainment for the other, however. The second draft contains revised language to incorporate these comments.

Comment IV.E.5.e. – "PSD Pollutant" Definition and Precursors: A commenter noted that the definition of PSD pollutant says that pollutants are not PSD pollutants if the District is non-attainment of the NAAQS for a pollutant, including precursors to such pollutants. The commenter stated that this could be interpreted to mean that precursors to non-attainment pollutants are not PSD pollutants, which would exclude NO_2 and SO_2. The commenter suggested that Staff should clarify that this is not the intent.

Response: The commenter is correct that precursors to non-attainment pollutants are not excluded from the "PSD Pollutant" in such a situation, where they are regulated as a pollutant in their own right and have a NAAQS established specifically for them. Such pollutants include NO_2 and SO_2, which are subject to non-attainment NSR requirements because they are precursors of ozone and $PM_{2.5}$, but which are also PSD pollutants because they have their own NAAQS, with which the Bay Area is in attainment. The second draft of the proposed amendments removes the parenthetical about precursors to non-attainment pollutants not being PSD pollutants, which should address this ambiguity. NO_2 and SO_2 will be PSD pollutants under this definition, because the Bay Area has not been designated as non-attainment of the NO_2 or SO_2 NAAQS.

Comment IV.E.5.f. – "Pollutant-Specific Basis" Definition: A commenter requested that staff clarify the context in which this definition is used.

Response: "Pollutant-Specific Basis" is a concept that is used in several different contexts where a regulatory requirement may address multiple pollutants, but is intended to apply only to those pollutants for which a source exceeds the stated applicability thresholds. Where such regulations are applied on a "pollutant specific basis", it means that pollutants for which the source exceeds the threshold are subject to the regulation while pollutants for which the source does not exceed the threshold are not subject to the regulation. The non-attainment NSR BACT and offsets requirements apply on a pollutant-specific basis, for example. The BACT requirement applies to multiple criteria pollutants, but BACT is required only for those pollutants for which the source's emissions exceed the 10 lb/day applicability threshold.

Comment IV.E.5.g. – "Contemporaneous" Definition: EPA staff noted that any contemporaneous emission reductions used to counter new emissions increases for purposes of NSR permitting of a new source or modification need to be in effect before the new source or modification begins operation. (*See* 40 C.F.R. §§ 51.165(a)(1)(vi)(B), 51.166(b)(3)(ii).) The only exception is for a new or modified source that is a replacement. (*See* 40 C.F.R. §§ 51.165(a)(1)(vi)(F), 51.166(b)(3)(vii).) EPA staff stated that the

District should remove the provision in proposed Section 2-2-206.2.2 that would allow emission reductions used in connection with modification permits to be treated as "contemporaneous" where they will be in effect up to 90 days after initial operation of the modification. EPA staff noted that the provision in proposed Section 2-2-206.2.3 for replacement units is authorized under EPA's NSR program requirements.

Response: Staff are removing the provision in Section 2-2-206.2.2 in the second draft, regarding modifications. For modifications, emission reductions will need to be in place by the time the modification begins operating to be treated as "contemporaneous", as is the case with new sources. Only in the case of replacements will the 90-day window after initial operation apply. Removing the provision in Section 2-2-206.2.2 also allows for simplification of the definition: it is no longer as important to enumerate specific sub-parts in the definition.

Comment IV.E.5.h. – "Contemporaneous" Definition: Commenters suggested that the definition of "contemporaneous" in Section 2-2-206 is confusing in that the end of the "contemporaneous" period is defined somewhat differently depending on the type of project involved (i.e., a replacement project vs. a new source). Commenters asked what the additional time period provided in Sections 2-2-206.2 and 2-2-206.3 was for, and asked for clarification on how the definition should be applied.

Response: See generally response to Comment No. IV.E.5.g. above. In the case of replacement projects, a little bit of additional time is allowed for an emission reduction to be implemented and still be counted as "contemporaneous". This is because for replacement projects, the old unit being replaced will likely have to continue operating up until the replacement is up and running, and often for a short period afterwards to allow for any shakedown or commissioning of the replacement unit. This provision allows emission reductions from the shutdown of the old unit being replaced to be "contemporaneous" with the new unit if they occur up to 90 days after initial operation of the new, replacement unit.

Comment IV.E.5.i. – "Creditable" Emissions Increases and Decreases for Purposes of PSD Applicability: A commenter asked for clarification on what types of projects are included in the calculation for creditable contemporaneous emissions increase and decreases.

Response: The proposed PSD provisions allow for "netting" of contemporaneous emission increases and decreases in a manner similar to EPA's provisions for netting under the federal PSD program. Any creditable emissions decreases or increases within the past 5 years are included in this netting analysis. A definition of "creditable" is being added to define what types of projects can be counted, in Section 2-2-207, which essentially provides that any increases or decreases are not relied on more than once for "netting" purposes. If any such increases or decreases are relied on in issuing a PSD permit, that permitting action wipes the slate clean with respect to those increases and decreases, and they are not counted in future netting exercises for determining PSD applicability. (See proposed Section 2-2-207.)

A related question concerns what kind of changes at a source that may result in emission increases or decreases can be taken into account in the netting analysis. The answer is that any physical change, change in method of operation or change in throughput or production that results in an increase in emissions compared with the source's baseline emissions is taken into account; and any such change

that results in a decrease in emissions is taken into account as long as the change and the resulting decrease are enforceable. (In both of these situations, the increase or decrease is measured using an actual-to-potential test.) The key provision that governs the netting analysis is the definition of "net emissions increase" in Section 2-2-220, which states that a "net emissions increase" takes into account any creditable contemporaneous emissions increases and decreases determined according to the emission increase/decrease calculation procedures Section 2-2-604. Thus, changes at a source are taken into account in the netting analysis to the extent that they are counted in the Section 2-2-604 calculation procedures. For increases, Section 2-2-604 looks to the difference between (i) the source's adjusted baseline emissions before the change and (ii) the maximum allowable emissions (PTE) after the change. Any change at the source that will result in such an increase will be counted (as long as it is creditable, contemporaneous, etc.). For decreases, Section 2-2-604 similarly looks to the difference between (i) the source's adjusted baseline emissions before the change and (ii) the maximum allowable emissions (PTE) after the change. This means that any change that results in a decrease can be counted (as long as it is creditable, contemporaneous, etc.), but only insofar as the decrease is <u>enforceable</u> so that the lowered emissions rate reflects the source's new maximum allowable emissions rate (PTE). A change that the source voluntarily makes and that can be reversed at any time would not be counted in the netting analysis, because it is not enforceable and is therefore not reflected in the source's PTE after the change as is required for the reduction to be counted under the Section 2-2-604 calculation procedures.

Note also that in all these cases, such changes and the increases and decreases associated with them do not necessarily need to be "modifications" as that term is defined in Section 2-1-234. Changes that result in emissions decreases, and changes that result in increases over actual baseline emissions but not above the Section 2-1-234 trigger levels, are technically not "modifications" as that term is defined. But they still are included in the netting analysis to the extent that they are taken into account in the Section 2-2-604 increase/decrease calculation procedures.

<u>Comment IV.E.5.j. – "Offsets" Definition</u>: A commenter suggested that Staff consider adding contemporaneous emission reduction credits into the "offsets" definition (and elsewhere in the rule).

<u>Response</u>: Offsets refer to <u>banked</u> credits that are provided to offset cumulative increase as that term is defined in Section 2-2-208 and related provisions, and don't include non-banked contemporaneous onsite emission reduction credits. Contemporaneous onsite emissions reduction credits are addressed in determining the amount of cumulative increase for which offsets must be provided. They are not "offsets" themselves, as that term is used in Regulation 2; they are reductions that reduce the amount of offsets that need to be provided. The effect is the same – contemporaneous on-site emission reduction credits can be used to counterbalance an increase in emissions from a new project at a facility, just like offsets can. But they are accounted for in a different part of the offsets calculation process. They are subtracted at the front end, when the cumulative increase is being calculated. They are not added to the amount of offsets being provided to account for that cumulative increase.

An example may help illustrate this point. Take a facility that is proposing a new project that will increase emissions by 10 tons per year. If the facility has no contemporaneous on-site emission

reduction credits, then the cumulative increase is 10 tpy, and it must provide 10 tpy of offsets under 2-2-608 (assuming the facility has no pre-existing un-offset cumulative increase). The facility would satisfy that offsets requirement by providing offsets – i.e., banked credits. But say the facility has a contemporaneous on-site emission reduction credit of 5 tpy (based on shutting down a source two years ago that had adjusted baseline emissions of 5 tpy calculated pursuant to Section 2-2-603). In that case, the cumulative increase is the 10 tpy increase from the new project less the 5 tpy contemporaneous on-site emission reduction credit, per the cumulative increase calculation procedures in Section 2-2-607. That makes the cumulative increase only 5 tpy, and the facility needs to provide only 5 tpy of offsets in the form of banked credits.

Essentially, this is a semantic issue about how contemporaneous on-site emissions reduction credits should be described. District staff are choosing to stick with the current language in Regulation 2-2, which treats contemporaneous on-site ERCs as reducing the cumulative increase, and not as "offsets" provided to counterbalance the cumulative increase. But as noted above, the effect is the same – at the end of the day when all of the calculations are done, the facility can use the contemporaneous shutdown as a way of lessening the amount of banked credits it needs to provide.

Comment IV.E.5.k. – "Emission Reduction Credit" Definition in Section 2-4-201: A commenter suggested that staff should update the definition of Emission Reduction Credit in 2-4-201 to reference section 2-2-211 (currently Section 2-4-201 references the existing ERC definition in 2-2).

Response: This correction has been made in the second draft.

Comment IV.E.5.l. – "Significant" Emissions Increase Definition in Section 2-2-226: In the part of the definition that specifies that the PSD "significant" increase threshold is zero for PSD pollutants that are not listed in the table, a commenter suggested that the definition should specify that the threshold is zero "for any PSD pollutant" that is not listed in the table.

Response: Staff believe that the language in the first draft was effective to limit PSD applicability to significant increases in PSD Pollutants only. That is, the first draft language did not contain any ambiguity on whether an increase in emissions of a pollutant that is not a "PSD Pollutant" could require PSD review. Nevertheless, to provide additional clarity on this point, Staff are adding additional language in the second draft along the lines suggested by this comment.

Comment IV.E.5.m. – "Significant" Increase Definition for Total Particulate Matter: A commenter suggested that the District needs to include the PSD significant emissions rate for total particulate matter, which is 25 tpy. Otherwise, the regulations would impose a zero significance rate for this pollutant.

Response: Staff agree that this significance rate (25 tpy) should be included in the significance table, and have added it in the second draft.

Comment IV.E.5.n. – "Closure" and "Shutdown" Definitions: Commenters stated that the District should delete the current definitions of "closure" and "shutdown" in Sections 2-1-235 and 2-1-236, as they are confusing.

Response: Staff agree with this comment and have removed these definitions in the second draft. These definitions defined "shutdown" as a temporary cessation of operation of a source and "closure" as a permanent cessation of operations, but this is not how these terms are commonly used by District staff an in District regulations. For example, in common usage a "shutdown" can be a short-term cessation when a source is shut down overnight, a longer-term outage such as when a source is taken out of service for maintenance or overhaul, or a permanent removal from service. Because the term is applied flexibly in common usage, establishing one single definition creates more problems than it solves. Staff believe that these terms are well enough understood by their common dictionary definitions and do not require more specific definitions for purposes of Regulation 2. The difference between a permanent shutdown (or closure) and a temporary shutdown (or closure) can more clearly and easily be specified simply by using the adjectives "permanent" and "temporary" where appropriate.

Comment IV.E.5.o. – Title V "Significant Source" Definition for Greenhouse Gases: One commenter stated that the Title V threshold in Section 2-6-239 for being a "significant source" for GHGs and HAPs is set too low and asked for an explanation of where these levels came from. The commenter stated that 2,000 tpy is too low a threshold for "significant source" for GHGs, and suggested setting it at 15,000 tpy instead. The commenter stated that the $PM_{2.5}$ threshold is 2 tpy, which is 20% of the 10-tpy NSR "significance" rate, and using that logic the GHG threshold should be 15,000 tpy, which is 20% of the 75,000-tpy NSR "significance" rate for GHGs.

Response: The "significance" rate for Title V is part of the Title V program, not the NSR program, and it is set at 2% of the Title V permitting threshold, not at a percentage of the NSR significance rate. The concept of a "significant" source for Title V is relevant for Section 2-6-405, which specifies the information that an applicant needs to provide in an application for a Title V permit. Section 2-6-405 requires that a calculation and summary of a source's emissions must be submitted for any source at a Title V facility that is "significant" as defined in Section 2-6-239. Current Section 2-6-239 defines "significant source" as any source with emissions of over 2 tons per year of any regulated air pollutant or over 400 pounds per year of any hazardous air pollutant. These threshold significance levels are set at 2% of the Title V major facility applicability thresholds (100 tons per year for regulated air pollutants and 10 tons per year for any single hazardous air pollutant), and they reflect the percentage at which the District treats an individual source at a Title V facility as making a significant contribution to the facility's total emissions. Since the District is establishing an effective Title V applicability level for GHGs at 100,000 tons per year of GHGs, the Significant Source definition needs to reflect a significance level for GHGs at 2% of this threshold level. The proposed revision to Section 2-6-239 therefore establishes the definition of "significant source" for GHG emissions at 2,000 tons per year CO_2e – 2% of the effective 100,000 ton-per-year Title V applicability threshold for GHGs. Staff disagree that the Title V significant source level should be based on NSR significance levels instead.

Comment IV.E.5.p. – Definition of Day, Month & Year: Commenters stated that the District should clarify what is meant by "calendar" day and "calendar" month. The commenter noted that different months have different lengths.

Response: A "calendar" day and month are those time periods as they are demarcated on a calendar. Thus, a calendar day is the 24-hour period from midnight when a day begins until the next midnight when that day ends. A calendar month is the one-month period from the beginning of the first day of the month to the end of the last day of the month, as that month is set forth on the calendar. It is true that different months have different lengths, meaning that calendar months can be different lengths depending on the month, but this does not create a problem with the implementation of the District's permitting regulations. The term is simply applied with the recognition that different months have different lengths. For example, if a regulatory provision looks to the highest emissions in any month, emissions in each month must be evaluated taking into account the fact that some months have a few extra days.

V. CONSIDERATION OF THE POTENTIAL FOR ANY ADVERSE ENVIRONMENTAL IMPACTS UNDER CEQA

Comment V – Preparation of Environmental Impact Report to Consider the Potential for Significant Adverse Environmental Impacts: The District received several comments suggesting that the amendments to Regulation 2 that staff are considering could result in significant adverse environmental impacts.

Some commenters were concerned that implementing the revisions to the NSR Program could impose permitting burdens that would hinder environmentally beneficial energy-efficiency and other emission-reduction projects, meaning that affected facilities would choose not to undertake them. These commenters stated that the amendments could therefore cause adverse environmental effects compared to what currently exists, in that these beneficial projects would not be undertaken and their benefits would not be realized. Another commenter expressed a concern that the proposed amendments include changes that the commenter felt were not related to changes in federal regulatory requirements (i.e., the new rules for $PM_{2.5}$ permitting and other new federal requirements). The commenter expressed a concern that such changes would require a significant increase in the number of permits that regulated entities will need to obtain; will add significant expense to potential projects, including environmentally beneficial projects; will delay the processing of permit applications; and will take away "vested rights" to pollute the air that had been granted to facilities in the past. The commenter's concern was that these changes could result in environmentally beneficial projects being delayed or postponed, and that this could have an adverse impact on the environment including but not limited to a diminished supply of gasoline in California.

Other commenters mentioned other concerns about potential adverse impacts, including (i) impacts from what the commenters characterized as a changed definition of "emission offsets"; (ii) impacts from the regulation's offset provisions more generally "due to the current and existing environmental

landscape"; (iii) impacts from "unexplored interactions between the numerous proposed changes"; (iv) impacts resulting from the adoption of a District PSD rule that would take over PSD permitting from EPA under the federal rules; (v) impacts from what the commenters referred to as a "weakening of current rules"; (vi) impacts from what the commenters stated would be "increased emissions of combustion products as oil refineries retool to process lower quality crude" as a result of the proposed amendments; (vii) impacts from what the commenters characterized as an addition of new exemptions, such as an exemption for asbestos and asbestos-related material; and (viii) impacts from what the commenters stated was "[a] decision to actively omit pollution data in the BACT calculus [and] omit information about pollution from a proposed project" as a result of the proposed amendments.

All of these commenters questioned whether it would be appropriate to proceed with a Negative Declaration under CEQA in light of these concerns about the potential for significant adverse environmental impacts. They suggested that an Environmental Impact Report would be more appropriate so that the District can consider the potential for significant environmental impacts in more detail.

Response: Staff does not find anything in these comments that demonstrates that there will be any significant adverse environmental impacts from the proposed amendments. Staff believe, however, that the potential for adverse environmental impacts is something that needs to be given full and in-depth consideration before any regulatory amendments are adopted, and is therefore preparing to begin an Environmental Impact Report (EIR) process so that all of these points can be considered in detail on the record as part of the regulatory development process. The District will be soliciting public involvement in the EIR process, and staff invite all of these commenters to get involved so that the District can fully consider all of these issues. At the conclusion of the EIR process, the District will then be in a position to make a fully-informed determination as to whether any of the proposed amendments will in fact have any significant adverse environmental impacts. Staff anticipate publishing an Initial Study/Notice of Preparation shortly, which will formally commence the EIR process. Notice regarding the CEQA process will be provided separately.

VI. MISCELLANEOUS COMMENTS

Comment VI.1. – Guidance on Permitting Procedures: Commenters suggested that the District should describe its implementation policies in detail in the Staff Report for the amended regulations and in permit procedures in the Manual of Procedures. They suggested that the District should provide detailed guidance and examples on how the requirements would be applied.

Response: Staff agrees and intends to provide guidance in the Staff Report and in a permitting manual and other documentation that will be made available to the public.

Comment VI.2. – No Offsets Required for CO: A commenter suggested that the District should consider adding a provision stating that offsets are not required for CO because the Bay Area is in attainment of

the CO NAAQS. The commenter stated that it is confusing that the District continues regulate CO as a BACT pollutant, even though the Bay Area is in attainment of the CO NAAQS.

Response: The offset requirements in Regulation 2-2 are clearly stated in Sections 2-2-302 and 2-2-303 and do not include CO. There is no need to list all of the pollutants that are not subject to offset requirements; the fact that they are not included in Sections 2-2-302 and 2-2-303 is sufficient to establish that the requirements do not apply to them. Staff agree that the Bay Area is in attainment of the CO NAAQS, but the District is prohibited under SB 288 from relaxing any NSR permitting requirements and so it will continue to require BACT for CO. Moreover, regardless of the Bay Area's attainment status, CO continues to be an important air pollutant that should be controlled from a public health perspective.

Comment VI.3. – Tying Title V Permit Revisions to NSR Permit Revisions: A commenter suggested that the District should create a "defined connection" between Reg. 2 New Source Review and Title V permitting, so that when an NSR permit is issued the new source or modification is added to the Title V permit as a minor modification. The commenter stated that currently the District requires a "significant" revision to the Title V permit for this type of change, and doing so takes time and leads to a Title V permit condition gap. The commenter stated that the regulations could be set up so that the NSR notice-and-comment process could also serve as the Title V notice-and-comment process.

Response: The current regulations allow for addressing NSR and Title V permit amendments at the same time in a consolidated amendment proceeding, with the notice-and-comment process going forward concurrently. The draft amendments would not change this situation. Staff do not want to create a requirement that such amendments be done together, however, because there are situations in which it is preferable to complete the NSR permitting process immediately without waiting to do the Title V amendment at the same time. The draft amendments will retain this flexibility. The District will continue to work to expedite Title V permitting to make it track NSR permit updates as closely as possible.

Comment VI.4. – Rules In Effect at Time of Permit Application Govern: A commenter suggested that the District should specify that the rules that are in effect at the time of a permit application govern permit issuance.

Response: Staff are not proposing to change the current situation on this issue. Currently, Regulation 2-1-409 provides that "[t]he decision as to whether an authority to construct shall be granted or denied shall be based on federal, state and District BACT, offset, TBACT, and project risk regulations or standards in force on the date the application is declared by the APCO to be complete." The draft amendments retain this language.

Comment VI.5. – Flexibility in Regulatory Language: A commenter stated that the District should provide some flexibility in the regulatory language to allow for discretion by the APCO in certain situations. The commenter suggested, for example, that the District should add language such as "or as allowed by permit condition" to provide flexibility in applying regulatory requirements. The commenter stated that doing so will allow for unanticipated situations to be addressed.

Response: Staff are wary of adding such undefined and open-ended provisions in the District's permitting regulations. It is difficult to consider and evaluate the kinds of situations that could potentially arise where such alternative permit conditions might be appropriate. The District's permitting regulations already provide sufficient flexibility to craft permit conditions appropriate to particular situations (e.g., in making source-specific BACT determinations), and Staff do not believe that it would be warranted to expand upon this existing flexibility with such a provision.

Comment VI.6. – Renumbering of Regulations: A commenter suggested that the District should consider renumbering the regulations from 2-1 to 2-11 and 2-2 to 2-12. The commenter stated that doing so will make it clearer in cross-references whether the reference is to the new NSR rules or the old NSR rules.

Response: Staff do not believe that such a renumbering is necessary. The fact that the regulations will change as a result of the proposed amendments, and that some regulation numbers will be different, is not an insurmountable problem. This situation arises every time the District makes significant revisions to its regulations, and there are ways to address the fact that old documents will reference the old version of the rules even after the rules change. Upon adoption of the amendments, Staff plan to publish correlation tables showing where and how all existing requirements are reflected in the new regulations and vice versa, and will continue to make the existing versions of the regulations available on the District's website along with the new versions. These tools will allow any interested party to readily determine what regulatory requirements are being referenced in older documents, even if the older documents reference section numbers that have become outdated. This is traditionally how regulatory agencies address such concerns when they update their regulations, and the District's current regulatory updates are no different.

Comment VI.7. – Specification of Source Test Frequencies: A commenter raised an issue concerning how frequently source testing should be required. The commenter noted that if testing requirements state that no more than one year can pass between tests, the testing frequency ultimately ends up getting shorter and shorter because as a practical matter no facility wants to go exactly 365 days from test to test. The commenter suggested specifying a frequency of not less than 10 months apart not more than 14 months apart, as the District has done in other rules.

Response: Periodic source testing is an important element in many NSR and Title V permits, but the manner in which testing frequency is specified in permit conditions is not spelled out in Regulation 2. This suggestion should be addressed permit language, not in the language of the NSR and Title V permitting regulations.

Comment VI.8. – RACT adjustment for Requirements in Clean Air Plan: A commenter noted with respect to the RACT adjustment methodology in current Section 2-2-605.5/draft amendment Section 2-2-603.5 that the regulations require RACT adjustment for regulatory requirements that are in a Clean Air Plan but that have not yet been adopted. The commenter stated a concern that a Clean Air Plan can include relatively inchoate regulatory concepts that have not been developed into specific regulatory

standards yet. The commenter questioned how the District can do a RACT adjustment for such elements included in a Clean Air Plan.

Response: Where a potential regulatory concept is included in a Clean Air Plan but has not been developed to the level where a specific regulatory standard is contemplated, there is nothing to base a RACT adjustment on. Where this type of regulatory concept in set forth in a Clean Air Plan, it is not included in the RACT adjustment. This has been the case for many years under Regulation 2-2 and the wording of the regulation on this point has never caused problems. Staff are not proposing to change the way the RACT adjustment regulations work. The draft amendments are a verbatim restatement of the current regulation with respect to this section.

Comment VI.9. – RACT adjustment for MACT standards: A commenter noted that the RACT adjustment to baseline emissions in current Section 2-2-605.5/draft amendment Section 2-2-603.5 is not required to include MACT standards, citing EPA policy.

Response: Staff are not proposing to change the way the RACT adjustment regulations work. The draft amendments are a verbatim restatement of the current regulation with respect to this section.

Comment VI.10. – Including Acetone as a Non-Precursor Organic Compound: A commenter suggested that the District include acetone as a Non-Precursor Organic Compound (NPOC).

Response: Acetone is a compound that has been identified as having a negligible contribution to ozone formation, and so it is appropriate to add it to the list of compounds included in the definition of NPOC. Staff have also reviewed the list to identify any other compounds that should be included, and have made several other updates accordingly.

APPENDIX A – EXAMPLES OF PM REGULATORY DETERMINATIONS USING AMENDED DEFINITIONS

The following examples illustrate how the proposed amendments will work in practice with respect to regulatory determinations for PM_{10} and $PM_{2.5}$.

Example 1: Facility A was permitted and built in 1992. Facility A has a facility-wide PM_{10} potential to emit (PTE) of 90 tpy when only filterable PM_{10} is considered, and another 20 tpy of condensable PM_{10} emissions (110 tpy total when both filterable and condensable are included). The facility has historically been permitted for PM_{10} taking only the filterable PM_{10} emissions into account, and so it has not been required to provide any PM_{10} offsets because its facility PM_{10} PTE has been treated as being below the 100 tpy regulatory threshold in Regulation 2-2-303 for which PM_{10} offsets requirements apply. Facility A wants to make a modification after the effective date of the amended regulations that will increase PM_{10} PTE by 10 tpy (measured including both filterable and condensable, which is how PM_{10} will be required to be measured after the amendments become effective). This increase will make the total facility PM_{10} PTE 130 tpy (including both filterable and condensable). The facility burns natural gas and all of its PM_{10} emissions are also $PM_{2.5}$, so $PM_{2.5}$ PTE will also be 130 tpy (including both filterable and condensable) after the modification. Under the draft amendments, Facility A would be required to provide offsets for both PM_{10} and $PM_{2.5}$, because the facility's PTE for both $PM_{2.5}$ and PM_{10} will be over 100 tpy.

For PM_{10}, the facility will be required to provide offsets for its un-offset cumulative increase back to April 5, 1991, the cumulative increase baseline date for PM_{10}. Under Section 2-2-608, the facility's cumulative increase is calculated by looking at the cumulative increase in PM_{10} (i.e., the increase in PM_{10} PTE less any contemporaneous onsite ERCs, per Section 2-2-607) for each permit issued for the facility back to the 1991 baseline date. For increases from permits issued before the effective date of the amendments, the District will not reopen any cumulative increase determinations made in connection with these prior permits, even if they were made based on filterable emissions only. For Facility A, that means that the historical cumulative increase of the existing facility, before the modification is made, is 90 tpy PM_{10}. For new increases after the effective date of the amendments, the condensable portion must be included as well. The additional PM_{10} cumulative increase from the proposed modification is thus 10 tpy. The total cumulative increase back to the baseline date is therefore 100 tpy in total: 10 tpy that will result from the modification and 90 tpy pre-existing cumulative increase from the facility as it exists at the time of the application. The facility has not yet provided any PM_{10} offsets, so it must provide 100 tpy PM_{10} offsets.

For $PM_{2.5}$, the cumulative increase baseline date is the effective date of the amended regulations. The permit for this modification will be the first permit issued after the effective date of the amendments, so the cumulative increase is only the increase associated with this modification – 10 tpy (measured including both the filterable and condensable portion). So offsets are required for 10 tpy of $PM_{2.5}$. (Note also that the facility could use contemporaneous on-site emission reduction credits for $PM_{2.5}$, if available, to reduce the cumulative increase associated with the modification. Any such contemporaneous on-site emission reduction credits would reduce the cumulative increase associated

with the modification as calculated under Section 2-2-607, meaning that fewer offsets (banked credits) would need to be provided. See example 3 below.)

Example 2: Facility B was permitted and built in 1992. Facility B has a facility-wide PM_{10} PTE of 120 tpy of filterable PM_{10} and 30 tpy condensable PM_{10}. Facility B has provided PM_{10} offsets for 120 tpy in PM_{10} emissions, because it has been over the 100 tpy threshold for requiring offsets under 2-2-303 (and the amount provided was 120 tpy and because offsets were calculated historically considering only the filterable portion of its PM_{10} emissions). After the effective date of the amendments Facility B wants to make a modification that will increase its PM_{10} PTE by 10 tpy (measured including both filterable and condensable), so that total PM_{10} PTE will be 160 tpy (measured including both filterable and condensable). As above, all of the PM_{10} is also $PM_{2.5}$, so the $PM_{2.5}$ PTE will also be 160 tpy. The facility would be required to provide offsets for both PM_{10} and $PM_{2.5}$, because the facility's PTE for both $PM_{2.5}$ and PM_{10} will be over 100 tpy (the threshold for triggering offsets requirements under 2-2-303).

For PM_{10}, the cumulative increase baseline date is April 5, 1991, and offsets must be provided for all cumulative increase calculated back to this date. The existing cumulative increase for permits issued before the effective date of the amendments was calculated using filterable PM emissions only, and the District will not reopen those prior determinations, so the total pre-existing cumulative increase is 120 tpy. All of that pre-existing cumulative increase has already been offset, so there is no prior un-offset cumulative increase under 2-2-608.2. For the modification after the effective date of the amendments, the new cumulative increase from the modification is calculated taking into account both the filterable and condensable portions, which is 10 tpy. So offsets need to be provided for the modification in an amount of 10 tpy, which is the facility's un-offset cumulative increase under 2-2-608.

For $PM_{2.5}$, the cumulative increase baseline date is the effective date of the regulations, and so only the cumulative increase from the modification needs to be offset (the same as with example 1 above). The cumulative increase from the modification is 10 tpy $PM_{2.5}$ (including both filterable and condensable), and so 10 tpy of $PM_{2.5}$ offsets needs to be provided.

Example 3: In example No. 2 above, Facility B is making a modification that will involve an increase in PTE of 10 tpy PM_{10} and 10 tpy $PM_{2.5}$. Assume that Facility B shut down a PM source 3 years ago that had 4 tpy filterable PM and 1 tpy condensable PM. (Again, assume the use of gaseous fuel and that all of the PM emissions are both PM_{10} and $PM_{2.5}$.) This shutdown was within 5 years before the facility submitted its application for the modification, and so it is "contemporaneous" under District regulations and can be used as a contemporaneous on-site emission reduction credit to reduce the cumulative increase associated with the modification. Both the emissions increase from the modification and the calculation of the contemporaneous on-site emission reduction credits from the shutdown are occurring after the effective date of the amendments, so both calculations will be required take into account both the filterable and condensable portions of the PM emissions involved. (Note that even though the shutdown of the old PM source was before the effective date of the amendments, the calculation of the amount of contemporaneous on-site emission reduction credits is being made after the effective date of the amendments as part of the determination of the amount of cumulative increase associated with the modification. So the amount of credit to be given will be governed by the calculation procedures set

forth in the amendments, which specify that both filterable and condensable PM emissions are counted.) So the modification will involve an increase in PTE of 10 tpy, and there are 5 tpy of contemporaneous on-site emission reduction credits, so the cumulative increase associated with the modification under Section 2-2-607 is 10 tpy – 5 tpy = 5 tpy. There is no prior un-offset cumulative increase under 2-2-608.2, because all of the PM_{10} cumulative increase back to 1991 has already been offset, and because there is no pre-existing $PM_{2.5}$ cumulative increase because this is the first permit application after the effective date of the amendments. So the facility un-offset cumulative increase under 2-2-608 is 5 tpy, for both PM_{10} and $PM_{2.5}$, and the facility must therefore provide 5 tpy of PM_{10} and $PM_{2.5}$ offsets (i.e., banked credits).