

CHAPTER 2

PROJECT DESCRIPTION

Introduction
Project Location
Project Objectives
Background and Project Description

2.0 PROJECT DESCRIPTION

This chapter of the EIR provides a description and summary of the proposed amendments (the project).

2.1 INTRODUCTION

This project consists of proposed amendments to the New Source Review (NSR) and Title V permitting regulations of the Bay Area Air Quality Management District (BAAQMD or District). The BAAQMD regulations that would be affected are in District Regulation 2, Rules 1, 2, 4 and 6. The text of the proposed amendments to these permitting regulations is set forth in drafts of the proposed amendments in Appendix B.

The District is considering the proposed amendments to update its NSR and Title V permitting regulations to address a number of recent regulatory developments, including new requirements by U.S. Environmental Protection Agency (EPA) for permitting of particulate matter less than 2.5 micrometers in diameter (PM_{2.5}), new EPA requirements for permitting Greenhouse Gases (GHGs), and other requirements for EPA approval of the District's permitting programs. The objective of these rule amendments is for the District to update its permitting regulations (i) to reflect current regulatory requirements that apply as a result of these recent developments, (ii) to strengthen the regulations so that the permitting programs can function as effectively as possible, and (iii) to ensure that the regulations will satisfy all EPA requirements and will be able to be approved by EPA under the Clean Air Act. Updating these permitting programs will help further the Air District's overall goals of ensuring clean air and protecting the public health and welfare in the San Francisco Bay Area.

The major rule amendments being proposed include the following:

- Expanding NSR and PM_{2.5} permitting requirements to encompass PM_{2.5} emissions;
- Ensuring that the District's NSR and Title V permitting requirements adequately encompass GHG emissions;
- Adopting and/or amending regulatory provisions for a District "Prevention of Significant Deterioration" program (an important sub-element of NSR permitting) for EPA approval;
- Revising the District's existing NSR applicability test in the definition of "modified source" to address a change in EPA policy regarding this definition;
- Expanding the requirements for NSR permit applicants to demonstrate that they will not cause or contribute to an exceedance of a National Ambient Air Quality Standard;

- Expanding public noticing requirements and public participation opportunities for NSR permitting;
- Reorganizing and clarifying the NSR and Title V permitting regulations so that they are easier to understand and implement; and
- Making certain other miscellaneous revisions to strengthen the regulations and address deficiencies that have been identified since the last time these programs were updated.

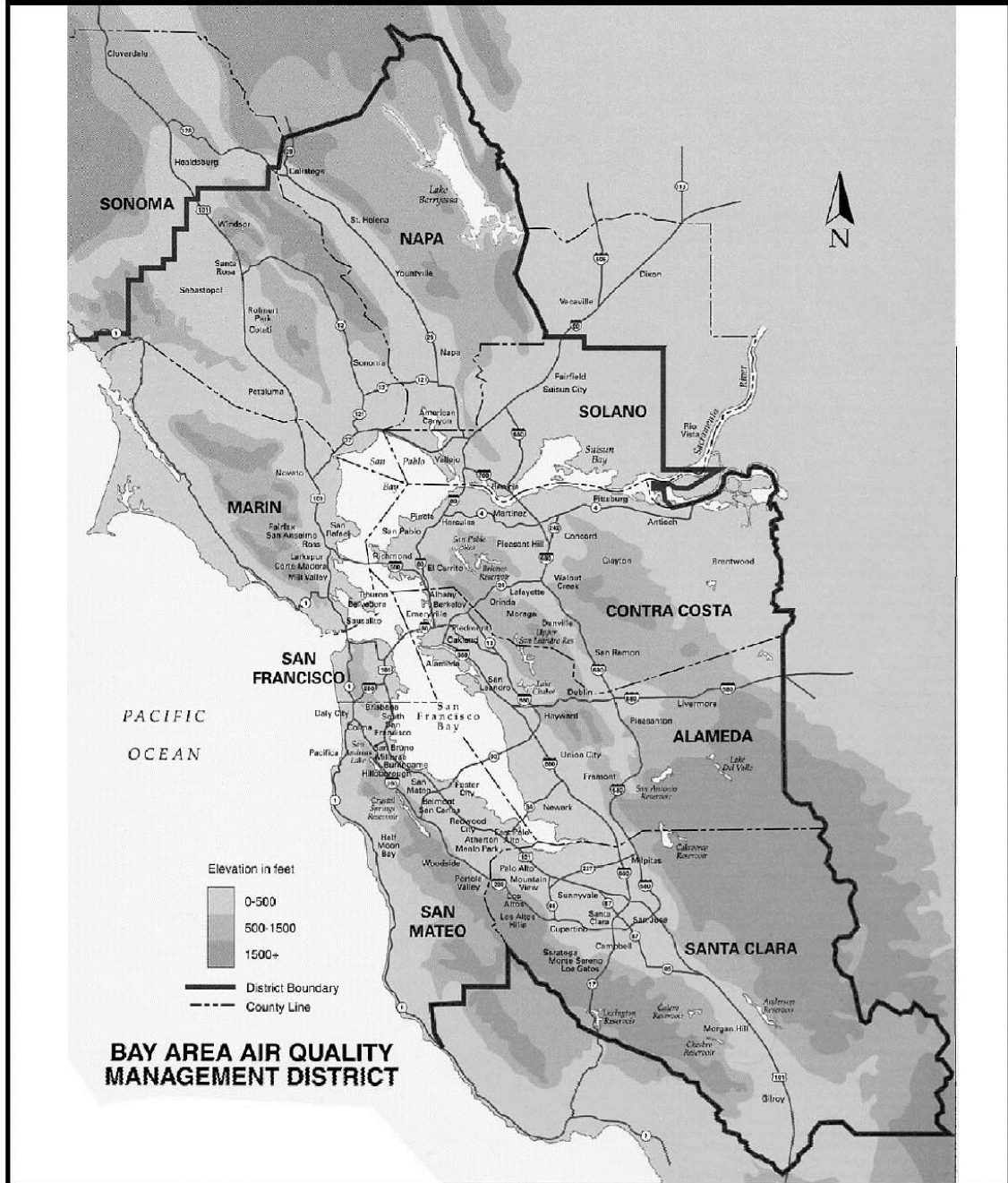
These proposed amendments are described in more detail below, as well as in the Staff Report that BAAQMD staff are publishing in connection with the proposed amendments.

2.2 PROJECT LOCATION

The proposed amendments to the District's NSR and Title V permitting regulations will apply throughout the agency's jurisdiction. The BAAQMD has jurisdiction over stationary sources of air pollution in the San Francisco Bay Area air basin, which encompasses an area of approximately 5,600 square miles. The Air District's jurisdiction includes all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties, and portions of southwestern Solano and southern Sonoma counties. The air basin is characterized by a large, shallow topographical basin surrounded by coastal mountain ranges tapering into sheltered inland valleys. The combined climatic and topographic factors result in increased potential for the accumulation of air pollutants in the inland valleys and reduced potential for buildup of air pollutants along the coast. The air basin is bounded by the Pacific Ocean to the west and includes complex terrain consisting of coastal mountain ranges, inland valleys and bays (see Figure 2-1).

CHAPTER 2: PROJECT DESCRIPTION

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 Environmental Audit, Inc.

 NOT TO SCALE

LOCATION OF BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Figure 2-1

2.3 PROJECT OBJECTIVES

The objective of these rule amendments is for the District to update its NSR and Title V permitting programs to address a number of recent regulatory developments, and to ensure that they fully satisfy all applicable state and federal legal requirements and can be implemented in the most effective and efficient manner to help the District achieve its clean air goals.

More specifically, the objectives of these proposed amendments include the following:

1. Incorporate Federal NSR and Title V Permitting Requirements. NSR and Title V are programs adopted under the federal Clean Air Act. The Clean Air Act sets forth a number of requirements for these programs, and then looks to the states to adopt permitting programs to implement them. An important objective of the proposed amendments is to ensure that the District's NSR and Title V programs properly implement all applicable federal program requirements. There are a number of such requirements that need to be addressed, including:
 - *New PM_{2.5} requirements:* EPA has adopted particulate matter regulations aimed specifically at PM_{2.5}, and the District needs to update its NSR requirements to include PM_{2.5} provisions.
 - *New GHG requirements:* EPA has begun regulating GHGs under the CAA, and the District needs to ensure that its NSR and Title V programs adequately encompass GHG emissions.
 - *PSD requirements:* The District has never had a PSD program that satisfies all of the federal NSR requirements, and these deficiencies need to be addressed in order to obtain EPA approval for District implementation of the PSD element of NSR permitting.
 - *Other requirements of NSR identified by EPA:* EPA has also identified certain other requirements of the federal NSR program that the District's regulations need to address in order to fully implement the Clean Air Act's requirements.

The District has developed the proposed amendments to ensure that the District's NSR and Title V programs adequately implement all of these requirements so that EPA can approve the District's program as effective for federal Clean Air Act purposes. Obtaining EPA approval will allow the District to implement these programs for federal purposes for stationary sources within the Bay Area. Moreover, failure to obtain EPA approval for the District's implementation will subject the Bay Area to sanctions under the Clean Air Act such as loss of federal highway money (except with respect to the PSD elements of NSR).

2. Ensure Compliance with State Law Requirements. There are a number of additional requirements that apply to the District's permitting programs under state law that the District must comply with. A second objective of the proposed amendments is to ensure that the federal requirements are implemented through

the District's NSR and Title V permitting programs consistent with all such requirements under state law. These state law requirements include a prohibition on relaxing any NSR regulations that were in effect as of 2002, among others.

3. Ensure that the NSR and Title V Permitting Programs Are Implemented as Efficiently and Effectively as Possible. A third objective of the proposed amendments is to ensure that the District's NSR and Title V programs implement these federal and state requirements in the most effective and efficient manner possible. The District aims to implement these requirements as effectively as possible, meaning that the requirements should obtain the maximum amount of emissions reductions that can be achieved for a given level of cost and regulatory burden. The District also aims to implement these requirements as efficiently as possible, meaning that the requirements should retain flexibility in how affected sources must comply with regulatory requirements as long as the required level of emissions reductions are achieved. These considerations drive the District's policy goals and also how the District seeks to achieve those goals through its specific regulations.
4. Ensure that the NSR and Title V Permitting Regulations Are Drafted and Presented in a Manner That is Clear and Easy to Understand and Implement. A fourth objective of the proposed amendments is to ensure that the District's NSR and Title V programs are drafted and presented in a manner that is easy for interested parties to understand. Air quality regulatory programs are highly technical and complex and it is important that these complicated programs are implemented in the most simple and straightforward manner possible under the circumstances. Doing so makes these permitting programs more effective for District staff, staff from other regulatory agencies, regulated entities and their consultants, interested community members and members of the public, and all others who come into contact with the regulations.

2.4 BACKGROUND AND PROJECT DESCRIPTION

The District is proposing a number of revisions to Regulation 2, the details of which are summarized in this subsection. The specific revisions to the text of Regulation 2 are included in Appendix B of this EIR. A further detailed description and discussion of the proposed amendments is also provided in the Staff Report that staff of the BAAQMD are publishing concurrently with this EIR.

2.4.1 "NEW SOURCE REVIEW" AND TITLE V PERMITTING

The proposed amendments update the District's regulations that implement two important Clean Air Act permitting programs, NSR and Title V. The following is a background discussion to provide the context in which the proposed amendments will apply.

2.4.1.1 New Source Review

NSR is a pre-construction permitting review requirement that ensures that when a new source of air pollution is built, or when an existing source of air pollution is modified, the project will implement and comply with all current regulatory standards governing air emissions. It focuses on projects at the design stage, before construction on the source begins, where it is easiest and most appropriate to incorporate the most effective pollution control technology (i.e., as opposed to having to retrofit a source after it is built). Based upon this pre-construction review, the District issues an “Authority to Construct” for the source that authorizes construction and imposes permit conditions to ensure that the source satisfies all applicable air quality-related regulatory requirements. The District’s NSR permitting program is contained in Regulation 2, Rule 2. In addition, Regulation 2, Rule 4 contains ancillary provisions regarding emissions banking, which help implement the “offsets” requirements of the NSR program (see further description below); and Regulation 2, Rule 1 contains general requirements that apply to all District permitting, including NSR permitting.

One of the principal purposes of NSR permitting is to help ensure that the Bay Area’s air quality complies with EPA’s National Ambient Air Quality Standards (NAAQS). The NAAQS are health-based standards for the concentration of air pollutants that can be present in the ambient air. EPA establishes these standards for a group of important air pollutants called “criteria” pollutants, and then designates each region of the country as “attainment” or “non-attainment” of the NAAQS for each pollutant based on measurements of air quality in the region. Where a region is designated as “non-attainment” for a pollutant, the region needs to take regulatory action to reduce the amount of that pollutant being emitted region-wide so as to come back into attainment. Where a region is designated as “attainment”, it is not out of compliance and so there is not as urgent a need for regulatory action. It is important to be vigilant so that air quality does not deteriorate to such an extent that it violates the NAAQS, however, so the region still has important responsibilities with respect to pollutants for which it is “attainment” of the NAAQS.¹

The NSR permitting program is designed to help implement these efforts to get ambient air quality into compliance, and to stay in compliance, with the NAAQS. As noted above, it requires new sources and modifications to existing sources to obtain a pre-construction NSR permit and implement certain emissions-control requirements. NSR applies to “major” facilities – facilities with emissions over 100 or 250 tons per year (depending on the source category) – and it requires new and modified sources at such facilities to obtain an NSR permit where the new source or modification will result in a “significant” increase in emissions of air pollutants. This “significant” increase threshold varies by pollutant, but it is generally between 10 tons per year and 100 tons per year.

¹ For certain pollutants, a region may be designated as “unclassified” because there is insufficient data to make an attainment determination or EPA may not have established a NAAQS for that particular pollutant. Such areas are treated the same as “attainment” areas for purposes of NSR permitting. The remainder of this discussion will use the term “attainment” to refer to both attainment and unclassified pollutants.

For *non-attainment pollutants*, the NSR requirements are more stringent, in recognition of the fact that more needs to be done for non-attainment pollutants to get the region into attainment of the NAAQS. This element of NSR permitting is called “Non-Attainment NSR”, and the principal requirements are the following:

- Best Available Control Technology: Non-Attainment NSR requires that new and modified sources use the “Best Available Control Technology”, or “BACT”, to control emissions. In general, BACT is the most effective type of control technology or most stringent emissions limitation that has been required at other similar sources, or that is technically and economically feasible for the source to implement. BACT is defined in current District Regulation 2-2-206. (The definition will be moved to Regulation 2-2-202 in the proposed amendments.)
- Emission Offsets: Non-Attainment NSR also requires that new and modified sources obtain emission reductions from existing sources to counter any new emissions increases from the new or modified source. These emission reductions from existing sources “offset” the new emissions so that there is no net increase in emissions overall from sources subject to the offset requirements. The Non-Attainment NSR program also has provisions for “banking” emissions reductions so that when an existing source is shut down, the associated emission reductions can be saved for later use in connection with future projects. This “banking” of emission reductions provides an incentive for existing facilities to shut down sources voluntarily when they are no longer needed, rather than keep them in operation until a new source is built that needs the reductions to offset its emissions. The District’s offset requirements are in current District Regulations 2-2-302 and 2-2-303, and the banking provisions that help implement the offset requirements are in current District Regulation 2, Rule 4. (The numbering of these provisions will remain the same under the proposed amendments.)
- Compliance Certification: Non-Attainment NSR also requires that the permit applicant for a new or modified source must certify that all of the facilities that it owns in California are in compliance with all applicable air quality regulatory requirements. This requirement is in current District Regulation 2-2-307. (It will be in Regulation 2-2-309 in the proposed amendments.)
- Alternatives Analysis: Non-Attainment NSR also requires that the applicant must demonstrate that the benefits of the proposed new or modified source outweigh any environmental and social costs that would result from its location, construction or modification. This requirement is in current District Regulation 2-2-401.1. (It will be in Regulation 2-2-401.3 in the proposed amendments.)
- Public Notice and Comment Opportunity: Finally, Non-Attainment NSR requires that the public must be notified before any permit is issued for a new or modified source and must be given an opportunity to comment on and provide input into the permitting decision. This public notice and comment requirement is in current District Regulation 2-2-405. (It will be in Regulation 2-2-404 in the proposed amendments.)

For *attainment pollutants*, the NSR permitting requirements are somewhat less stringent, given that for attainment pollutants the region is, by definition, not out of compliance with the NAAQS and so the situation is not as urgent. It is still important to take steps to control emissions of such pollutants in order that the air quality does not deteriorate to such an extent that an exceedance of the NAAQS occurs, however, and so NSR permitting applies certain important regulatory requirements for these pollutants as well. In keeping with this goal of preventing air quality deterioration, this element of NSR permitting for attainment pollutants is called “Prevention of Significant Deterioration”, or “PSD”. The principal elements of PSD permitting are the following:²

- PSD Best Available Control Technology: PSD also requires BACT, although in a slightly less stringent manner than Non-Attainment NSR. The principal difference is that for PSD, cost, energy and ancillary environmental impacts are taken into consideration. If such considerations suggest that a certain type of control technology or emissions limitation is not appropriate at a source, it would not be required as PSD BACT (unlike with Non-Attainment NSR, where BACT requires the control technology or emissions limitation to be used if it has been required at other similar facilities, regardless of any such considerations).³
- Air Quality Impact Analysis (and related analyses): PSD does not require “offsets” for new emissions increases, as for PSD pollutants the region is, by definition, not in violation of the NAAQS and so it can allow a certain amount of additional emissions without exceeding the health-based air quality standards. To ensure that any such increases do not jeopardize compliance with the NAAQS, however, PSD requires an analysis of the impacts that the emission increases will have to ensure that they will not cause or contribute to a NAAQS exceedance. In addition, the analysis must show that the increases will not consume an air quality “increment”, which is an increase in air pollutant concentrations that would constitute impermissible “significant deterioration” in air quality. PSD also requires an analysis of whether such increases will adversely affect visibility, soils or vegetation in the region; and any air-quality related values in areas of special environmental value such as National Parks (called “Class I Areas”).
- Public Notice and Comment Opportunity: As with Non-Attainment NSR, PSD also requires that the public must be notified before any permit is issued for a new or modified source and must have an opportunity to provide input on the permitting decision.

² Note that unlike Non-Attainment NSR, the relevant PSD provisions applicable to new and modified sources in the Bay Area are not in District regulations, because the District does not have an approved PSD program. See discussion below in Section 2.4.2 for more details.

³ Under the terminology of the federal Clean Air Act, the PSD control requirement is called “Best Available Control Technology” and the more-stringent Non-Attainment NSR control requirement is called “Lowest Achievable Emissions Rate”, or “LAER”. California calls the more-stringent requirement “BACT”, however. To distinguish these concepts, the more-stringent requirement (federal “LAER”) is sometimes called “California BACT” and the less-stringent requirement “PSD BACT”. This document uses the term “BACT” to refer to the more-stringent requirement, unless specifically noted otherwise.

These two sub-elements, “Non-Attainment NSR” for non-attainment pollutants and “PSD” for attainment (and unclassified) pollutants, are the primary provisions of the NSR program. As noted above, they apply under the Clean Air Act at any facility that will emit 100 tons per year or more of any pollutant regulated under the Act, or 250 tons in certain limited cases; and to any new or modified source at such facilities that will cause a “significant” increase in emissions. There are also a few more minor requirements that apply to facilities below this 100/250 ton per year “major” facility threshold, which EPA calls “minor NSR” requirements. But for the most part, the Clean Air Act’s NSR program is implemented through these Non-Attainment NSR and PSD provisions.

Finally, in addition to these federal NSR requirements, California law imposes certain additional requirements for the District’s NSR program. These include additional provisions for implementing the District’s NSR program, including requirements for BACT and offsets at lower thresholds, as set forth in Health & Safety Code sections 40910 through 40930; and a prohibition against relaxing any NSR rules that were in effect as of December of 2002, as set forth in Health & Safety Code sections 42500 through 42507.

2.4.1.2 Title V

Title V permits are operating permits. Instead of applying at the pre-construction stage like NSR permits, the Title V permit requirement – also known as “Major Facility Review” – applies once a source is constructed and begins operating. Title V operating permit requirements also apply to “major” facilities, those with emissions of 100 tons per year or more.

Title V permitting does not impose any new substantive requirements on sources. The substantive requirements to limit emissions are imposed through the pre-construction NSR permitting process, through the emissions standards and limitations in the District’s regulations, and through other applicable legal requirements. Instead, Title V permits compile all of these substantive requirements in one single document to improve enforceability, implementation, and transparency. The Title V permit thus becomes an important regulatory document covering the facility’s operation, providing facility operators, District inspectors, interested members of the public, and others with a single location to readily access all of the applicable air quality requirements to which the facility is subject. In this way, Title V permits aid in enhancing the enforceability of air quality requirements, in ensuring compliance with such requirements by the facility, and in providing transparency for the public in how air quality regulations are being implemented. The District’s Title V Major Facility Review permitting program is contained in Regulation 2, Rule 6 (with certain elements of the District’s general permitting requirements in Regulation 2, Rule 1 also helping to implement the Title V program).

2.4.1.3 District Permit Programs Implementing Federal Clean Air Act Requirements

Both the NSR and Title V permitting programs have their genesis in the federal Clean Air Act. In the Clean Air Act, Congress established a requirement that every region of the country must have NSR and Title V permitting programs in place that satisfy the Act's minimum standards. But Congress envisioned that the states would take the lead in implementing these requirements and would adopt their own permitting programs under state law to do so. Congress intended that the states would use their own regulatory powers under state law to establish state-law permitting programs that meet the minimum requirements set forth in the Clean Air Act. EPA would then review these state-law permitting programs to ensure that they were sufficiently stringent, and then would approve them as satisfying the Act's minimum requirements. Once EPA has approved a state's program, the state then implements the Act's requirements through that program, and permits issued by the state agency under that program satisfy the federal legal requirements in the Clean Air Act.

This is the situation for both NSR and Title V permitting. Congress created these programs in the Clean Air Act and then looked to the states (often through local or regional agencies such as the Air District) to adopt their own permitting programs to implement this federal mandate. Congress gave the states leeway to be more stringent if they want to, and California has also adopted its own additional requirements over and above the federal minimum requirements, in particular with respect to New Source Review. But the basic concept is that Congress established certain minimum requirements that need to be in place in every region throughout the county, and then looked to states to adopt their own state-law programs that meet or exceed these federal minimum requirements. Where a state is unwilling or unable to do so, then the federal government, through EPA, steps in and implements its own federal program to ensure that the federal minimum requirements are met in all cases.

2.4.2 THE DISTRICT'S CURRENT NEW SOURCE REVIEW AND TITLE V PROGRAMS

The District has adopted permitting programs to implement these federal NSR and Title V programs, with certain additional and more stringent provisions as required by California law and/or District regulations.

With respect to NSR, the District has adopted Non-Attainment NSR permitting requirements in Regulation 2, Rule 2 (New Source Review) and related provisions. EPA approved the District's Regulation 2, Rule 2 for Non-Attainment NSR purposes on January 26, 1999. (See 64 Fed. Reg. 2850.) The District's Non-Attainment NSR requirements actually go beyond the federal minimum requirements in a number of respects. For example, Regulation 2-2 requires BACT for sources with emissions of only 10 pounds per day, whereas the federal requirement does not require offsets until a facility's emissions reach 100 tons per year, a much higher threshold. Similarly, Regulation 2-2 requires offsets for ozone precursors (nitrogen oxides (NOx) and volatile

organic compounds (VOC)) at facilities with emissions of 10 tons per year, which is also lower than the federal threshold. Many of these more stringent elements are the result of state-law requirements in the California Health & Safety Code that require the District's program to exceed the federal minimum requirements.

For historical reasons, however, EPA has never approved the District's PSD program. For the PSD element of NSR permitting, the District has never had an EPA-approved program. Instead, EPA's federal PSD program set forth in the Code of Federal Regulations (C.F.R.) governs PSD permitting for sources in the Bay Area. (See 40 C.F.R. § 52.21.) PSD permits issued under this program are federal permits issued through EPA's authority under the Clean Air Act, not District permits issued through the District's authority under the California Health & Safety Code. PSD permits are governed by federal law and regulations and are appealable through the Environmental Appeals Board (EPA's federal administrative tribunal) and ultimately to the federal courts. For administrative convenience, EPA has delegated the processing of certain types of federal PSD permits to the District, and the District evaluates and issues such permits on EPA's behalf, but they remain federal PSD permits issued under EPA's authority. As EPA's Environmental Appeals Board has noted, in such cases the District does so exercising EPA's federal regulatory authority "standing in the shoes" of EPA.

With respect to Title V permitting, EPA has approved the District's Title V program. Title V permitting in the Bay Area is a District permitting program implemented through District Regulation 2, Rule 6. EPA approved the Title V permitting provisions in Regulation 2, Rule 6 on June 23, 1995. (See 60 Fed. Reg. 32,606.)

This is the current state of the District's NSR and Title V permitting regulations. The proposed amendments would make changes to these regulation programs as they currently exist. The full text of the District's current regulations can be found in on the District's web page (www.baaqmd.gov/Divisions/Planning-and-Research/Rules-and-Regulations.aspx). For PSD permitting, the PSD regulations that currently govern permitting in the Bay Area can be found at 40 C.F.R. Section 52.21.

2.4.3 RECENT REGULATORY DEVELOPMENTS

There have been a number of recent regulatory developments regarding NSR and Title V permitting since the Air District last updated its programs. District staff have developed the proposed revisions to address these recent developments, which are described below.

2.4.3.1 Bay Area Designated "Non-Attainment" of 24-Hour PM_{2.5} NAAQS

Particulate matter (PM) pollution is commonly referred to based on the size of the particles that constitute the particulate matter being addressed. For many years, the most common regulatory designation of PM was PM₁₀, or particulate matter with a diameter of 10 microns or less. More recently, PM_{2.5}, or particulate matter with a diameter of 2.5 microns or less, has become the subject of heightened regulatory scrutiny. As part of this increased focus on PM_{2.5}, EPA revised its National Ambient Air Quality Standards for

particulate matter to include standards specific to both PM₁₀ and PM_{2.5}. EPA has subsequently begun implementing its NAAQS for PM_{2.5}, which has included a review of the status of the air quality in every region of the country to determine whether or not it complies with the PM_{2.5} standards.

Based on such a review, EPA has recently designated the San Francisco Bay Area as non-attainment of the short-term (24-hour-average) PM_{2.5} NAAQS. This means that EPA has made an administrative determination that the amount of PM_{2.5} in the ambient air in the Bay Area exceeds EPA's federal health-based standard for PM_{2.5}, averaged over 24 hours. EPA reviewed data on the concentration of PM_{2.5} in the air measured at locations around the Bay Area over a period of years, and based on this data designated the Bay Area as Non-Attainment of this NAAQS effective December 14, 2009. More recent data have shown that PM_{2.5} concentrations have now come down to below the NAAQS, and the Air District has prepared a "Clean Data Finding" to submit to EPA addressing this situation. For the time being, however, the Bay Area remains administratively designated as "non-attainment" of the PM_{2.5} NAAQS.

This "non-attainment" designation means that PM_{2.5} emission sources in the Bay Area are now subject to Non-Attainment NSR requirements (i.e., BACT, offsets, a compliance certification and alternatives analysis, and public notice and comment) for that pollutant. The requirements took effect immediately upon the effective date of the designation in December of 2009 under EPA's interim Non-Attainment NSR regulations in 40 C.F.R. Part 51, Appendix S (Appendix S). To implement these requirements for the longer term under the District's NSR program, the District must update its NSR permitting regulations to add these requirements for sources that emit PM_{2.5}. The District's current NSR permitting regulations already include Non-Attainment NSR requirements for PM₁₀, and the District is now required to add requirements specifically for the PM_{2.5} portion of particulate matter emissions to implement them through the District's program. If the District does not do so, then EPA will need to regulate these emissions sources under a federal implementation program.

In addition, as part of EPA's PM_{2.5} NSR implementation regulations, EPA has clarified how PM emissions must be measured. There are two components to particulate matter emissions: (i) solid particles that are emitted directly from the exhaust stack; and (ii) gaseous components that are not in solid form when they are emitted but rapidly condense to form solid particles as they cool down in the ambient air. The first component is known as "filterable" particulate matter, and the second component is known as "condensable" particulate matter. Historically, NSR regulations have not explicitly defined how particulate matter is to be measured, and in many cases NSR has been applied taking only the filterable component into account (although in some cases condensable particulate matter has been included as well). In part, this was because testing methodologies were not as advanced for the condensable component as they were for the filterable component. More recently, however, improvements in testing methodologies have led EPA to revise its particulate matter definitions to specify explicitly that both the filterable and condensable components must be included for all purposes for NSR permitting. EPA's revised NSR implementation regulations establish

specifically that all implementation of NSR requirements for particulate matter – both for PM_{2.5} and for PM₁₀ – must be based on both the filterable and condensable components. (See EPA’s PM_{2.5} Implementation Rule, 73 Fed. Reg. 28,321 (May 16, 2008), for further details.) These provisions are currently in effect for the Non-Attainment NSR permitting provisions referred to above that are applicable to PM_{2.5} sources in the Bay Area under Appendix S; and they are in effect generally for EPA’s NSR approval requirements for state programs under 40 C.F.R. Sections 51.165 and 51.166. The District now must update its permitting programs in Regulation 2, Rule 2 to reflect this regulatory development.

2.4.3.2 Federal Regulation of GHGs

EPA has also begun regulating GHG emissions from light duty cars and trucks. Although these requirements apply to mobile sources, they are the first time that EPA has imposed substantive emissions limitations on GHG emissions under the Clean Air Act. As a result of these regulations, GHGs are now “subject to regulation” as that phrase is used under the NSR and Title V programs. Those programs require NSR and Title V permitting for major stationary sources for all pollutants that are “subject to regulation”, which now includes GHGs. The District’s permitting programs must now include GHGs to reflect this requirement. (See EPA’s so-called “Tailoring Rule”, 75 Fed. Reg. 31,515 (June 3, 2010), for further details.)

For GHG emissions sources in the Bay Area, these requirements are already in effect under the NSR program. GHGs are regulated under the PSD element of NSR, and the federal PSD permitting program applies for GHG emissions from these sources. But the PSD provisions in the District’s NSR rules do not yet address GHGs, and so the District needs to revise Regulation 2, Rule 2 to extent its own PSD permitting provisions to cover GHGs. For Title V, the District’s Title V regulations already implicitly cover GHG sources as described below, but they need to be revised to state explicitly how GHGs will be regulated under that program.

2.4.3.3 Lack of EPA-Approved PSD Program in the Bay Area

As noted above, the District has never had an EPA-approved PSD program. Instead, EPA has been administering the PSD program itself under its federal regulations, with the District issuing PSD permits on EPA’s behalf under a federal delegation agreement. When this arrangement was first set up, it appeared to be a workable one because EPA’s PSD permitting procedures are very similar to the District’s Non-Attainment NSR permitting procedures, and it was presumed that if the District simply followed its own permitting procedures, that would satisfy both District requirements and federal PSD requirements. However, a number of situations have arisen where slight differences between the District’s permitting requirements and the federal PSD requirements have led to problems with PSD permitting that resulted in procedurally defective PSD permits. It is now clear that having separate permitting regulations for Non-Attainment NSR (under District regulations) and for PSD (under EPA’s federal regulations) is untenable. It is now clear that to avoid such problems, the District needs to adopt its own District

PSD permitting requirements and have EPA approve them for PSD permitting in the Bay Area. (Note that the District does have existing PSD provisions in Regulation 2, Rule 2, and these permitting requirements are currently on the books and legally effective under state law. They have never been approved by EPA as effective for federal Clean Air Act purposes, however, which has given rise to the problems with inconsistencies between District and federal permitting requirements.)

2.4.3.4 EPA-Identified Deficiencies in Current District NSR Provisions

During the development of the proposed amendments, Air District staff met with representatives from EPA Region IX regarding the District's existing permitting programs and the District's plans for updating them. In addition to the regulatory developments outlined above, EPA Region IX staff also identified several deficiencies in the District's current regulations that need to be addressed. EPA Region IX staff also documented a number of these deficiencies in a comment letter submitted in connection with a draft of the proposed amendments that the District circulated for public review and comment. (See comment letter from G. Rios, EPA Region IX, to C. Lee, BAAQMD, July 26, 2012.) As EPA Region IX staff have pointed out, there are certain areas in which the District's NSR program does not fully satisfy EPA's current requirements for such programs, which need to be addressed in order for EPA to be able to continue to approve the District's program. If the District does not incorporate these federal requirements into its NSR program, then EPA will not be able to approve the District's program and will need to implement the requirements itself under its federal regulatory authority.

2.4.3.5 Additional Deficiencies Identified by District Staff

In addition, Air District staff also identified certain areas in which the District's NSR and Title V programs should be amended in order to work more effectively in helping the District to achieve its clean air goals. The District's current programs are already very comprehensive and robust, but there are always opportunities to improve any regulatory program. Air District staff have noted several such areas through their experience in implementing these programs in recent years. The current update process presents an ideal opportunity to address these issues, which are relatively minor compared to the other updates being addressed, but are nonetheless important from a permitting efficiency and effectiveness standpoint.

2.4.3.6 Need to Streamline and Clarify Current Regulations

Finally, the District's NSR regulations are in some places difficult to understand and implement. The regulations have developed over the years as new requirements have been added or updated, and sometimes that has happened without any consideration of how the regulations work as a coherent whole. District staff have therefore realized that Regulation 2, Rule 2 (and certain other provisions) are in need of an overhaul to reorganize and clarify them. In addition, certain regulatory language is confusing and it can be difficult to understand how the regulation is intended to be applied in practice.

This situation can cause confusion among the regulatory community and others about exactly what is required by the regulations, and it can lead to inconsistent implementation by District staff. To address these issues, the proposed amendments reorganize Regulation 2, Rule 2 and related provisions and revise much of the regulatory language used to present it in a manner that is clearer and easier to understand.

2.4.4 PROPOSED AMENDMENTS TO REGULATION 2

District Staff have developed the proposed amendments to address the recent regulatory developments outlined above. The proposed amendments will update the District's NSR and Title V permitting programs accordingly.

The proposed amendments will affect the District's permitting rules in Regulation 2, and in particular the NSR regulations in Regulation 2, Rule 2 and the Title V regulations in Regulation 2, Rule 6. The proposed revisions to each of these Rules in Regulation 2 are set forth in draft revised regulations included as Appendix B of this EIR. The proposed amendments reflect a process of discussion with and input from a large number of stakeholders and other governmental agencies, including CARB and EPA, that has taken place over many months.

The proposed amendments are summarized below. A more detailed discussion of each specific change involved in the proposed amendments is also provided in the in the Staff Report being issued for the proposed amendments.

2.4.4.1 Adding New NSR Permitting Requirements for PM_{2.5}

The proposed amendments will add Non-Attainment NSR permitting requirements for PM_{2.5} to Regulation 2, Rule 2, including: (i) a BACT requirement for PM_{2.5}, in Section 2-2-301; (ii) PM_{2.5} offsets requirements, in Section 2-2-303; (iii) a compliance certification requirement, in Section 2-2-309; (iv) an alternatives analysis requirement, in Section 2-2-401.3; and (v) a public notice and comment requirement, in Section 2-2-404 (and related provisions). These requirements currently apply to PM_{2.5} emissions sources in the Bay Area under 40 C.F.R. Part 51, Appendix S. The proposed amendments will incorporate them in the District's Regulation 2, Rule 2. The proposed amendments also include revisions to the District's emissions offsets banking regulation (Regulation 2, Rule 4) to ensure that the banking provisions will address PM_{2.5} as well.

The proposed amendments also specify that PM_{2.5} and PM₁₀ must be addressed taking into account both the filterable and condensable portion of the particulate matter emissions. They add a new definition for PM_{2.5}, and revise the existing definition of PM₁₀, to specify that the condensable portion must be included. (See Sections 2-1-229 and 2-1-241.) They also include provisions to specify how to treat historical permit limits and regulatory determinations that may have been made taking into account only the filterable portion. (See sections 2-1-604 and 2-1-605.) This definition of particulate matter including both filterable and condensable emissions currently applies under the

federal NSR permitting program. These revisions will clarify how it applies under District regulations as well.

2.4.4.2 Adding NSR and Title V permitting requirements for GHGs

The proposed amendments will include GHG permitting requirements for the NSR and Title V programs.

For Title V, adding GHGs is primarily a matter of adding GHGs to the list of regulated air pollutants in Section 2-6-222; GHGs will be added in new subsection 2-6-222.6. The proposed amendments also include a number of other ancillary additions to ensure that other related implementation provisions address GHGs as well.

For NSR, GHGs are regulated under the PSD element of the NSR program because they are not “non-attainment” pollutants. (There is no NAAQS for GHGs, and so by definition the Bay Area cannot be non-attainment for GHGs.) GHG regulation will be implemented as part of the PSD program that is included in the proposed amendments described below. GHG emission sources in the Bay Area are currently regulated under the federal PSD program; the proposed amendments will shift PSD regulation for federal purposes to an EPA-approved District program.

2.4.4.3 Adopting a PSD Permitting Program for Approval by EPA

The proposed amendments add provisions to create a PSD permitting program that can be approved by EPA under the Clean Air Act. The primary PSD provisions include (i) a new term “PSD Project” in Section 2-2-224 to define the types of new sources and modifications to which the PSD provisions apply, along with some related definitions to help implement this term; (ii) a PSD BACT requirement in Section 2-2-304, which requires PSD BACT for all new and modified sources above the PSD applicability thresholds; (iii) a PSD air quality impact analysis requirement in Section 2-2-305, which requires a demonstration that the PSD Project will not cause or contribute to a violation of any NAAQS or any PSD increment; (iv) a PSD additional impacts analysis requirement in Section 2-2-306, which requires an analysis of potential impacts to visibility, soils and vegetation from the project and from any associated growth; (v) a Class I Area impact analysis in Section 2-2-307, which requires projects that may impact any Class I Area to conduct an analysis of potential impacts to air-quality-related values within such areas (and which also encompasses non-attainment pollutants as required by 40 C.F.R. section 51.307(b)); and (vi) a public notice and comment requirement, in Section 2-2-404 (and related provisions). These provisions will apply to major emitters of all PSD pollutants, which includes GHGs as noted above. The proposed amendments will shift federal PSD permitting under the Clean Air Act from EPA’s program under 40 C.F.R. Section 52.21 to the District’s program under Regulation 2, Rule 2.

2.4.4.4 Revising the Applicability Test for NSR Permitting for “Modifications” to Existing Sources

The proposed amendments also revise the applicability test for NSR permitting requirements as they apply to modifications to existing sources. The NSR requirements apply to new sources and to “modified” sources as defined in District Regulation 2-1-234, and so the definition in Section 2-1-234 has central importance for NSR permitting. Whether NSR requirements apply when a change is made at an existing source depends on whether the change constitutes a “modification” under that definition.

The District’s current provision bases the definition of “modification” on whether the change being implemented at the existing source will result in an increase in the source’s potential to emit air pollution. EPA has approved this approach to defining whether existing sources need to go through NSR permitting in the District’s current EPA-approved version of Regulation 2, Rule 2, and in similar NSR program provisions adopted by other California air districts. EPA Region IX staff have informed the District that EPA will no longer approve this definition, however. EPA Region IX staff have taken the position that the NSR “modification” test must be based on the source’s actual historical emissions, not on its maximum potential emissions (at least for major modifications to major facilities – what EPA calls “major NSR”). (See EPA Region IX July 26, 2012, comment letter.)

To address this change in EPA policy, the proposed amendments include adding an additional element to the current “modification” test to incorporate EPA’s test in any situation where that test may be more stringent. The District believes that overall its current test is substantially more stringent than EPA’s approach, but to address the potential that there could be situations where EPA’s test would require NSR permitting where the District’s test would not, the proposed amendments will incorporate the federal test as a “backstop” to ensure that the District’s regulations are no less stringent. The District’s current test will still apply to require NSR permitting for any change at an existing source that will result in an increase in the source’s potential to emit. This element of the “modification” test will be in Section 2-1-234.1. In addition, the “federal backstop” test will also apply and will require NSR permitting for any change at an existing source that will result in a significant net increase over the source’s actual historical emissions as required under EPA’s test. This “federal backstop” element of the “modification” test will be in Section 2-1-234.2.

It is unlikely that this revision will require any additional sources to undergo NSR permitting review, as the District’s current applicability test is already very stringent. Should there be any situation where a change at an existing source would be a “major modification” under EPA’s test that would not already be covered by the District’s current test, however, this new “federal backstop” test would come into play and would require the change to undergo NSR permitting review as a “modification” under Section 2-1-234. In every instance, the more stringent test will apply – either the District’s current test, which will be applicable under Section 2-1-234.1; or the federal test, which will be applicable under Section 2-1-234.2.

2.4.4.5 Expanding the NAAQS Compliance Demonstration Requirement

The proposed amendments also add an expanded 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 NAAQS. This NAAQS compliance demonstration is similar to the air quality impact analysis required for PSD permitting, but it applies more broadly. The PSD requirement applies only to facilities over the PSD “major” facility threshold (emissions greater than 100 or 250 tons per year, depending on the source category); and it applies only to PSD pollutants. The expanded NAAQS compliance demonstration requirement applies to all facilities regardless of their size, and for all pollutants, including non-attainment pollutants. The requirement will apply to all new sources and modifications to existing sources that will result in a “significant” increase in emissions (using the established NSR “significance” thresholds, which are set forth in Section 2-2-227). The proposed amendments add this requirement for a number of reasons, including (i) a request by EPA Region IX staff to include provisions specifically aimed at ensuring that non-“major” sources will not interfere with attainment or maintenance of the NAAQS, as required by 40 C.F.R. Sections 51.160(a) and (b); (ii) comments received from the public noting that smaller sources could have the potential to cause NAAQS exceedances, even when they are below the NSR “major” facility thresholds; and (iii) a general policy concern that all appropriate precautions should be taken to ensure that the NAAQS are protected, given the important environmental and public health protections that those standards embody. This new requirement is in Section 2-2-308 in the proposed amendments.

2.4.4.6 Public Notice and Comment for Smaller Sources

The public notice and comment requirements described above have traditionally applied to “major” facilities. The proposed amendments would expand this requirement to provide public notice and comment for all facilities, regardless of size, where a new source or modification to an existing source will result in a “significant” increase in emissions as defined in Section 2-2-227. (This is the same applicability threshold as for the NAAQS compliance demonstration required described above.) This revised requirement is contained in Section 2-2-404 in the proposed amendments.

2.4.4.7 Miscellaneous Minor Revisions

The proposed amendments also include several more minor changes. Some of these changes were requested by EPA Region IX staff to address deficiencies where the District’s existing NSR program does not fully satisfy EPA requirements for NSR, as discussed above. Other changes are being made based on Staff’s determination that they are needed to make the District’s permitting program work more effectively. Please see Appendix B for the proposed rule amendments for all such changes, as well as the discussion in the accompanying Staff Report.

2.4.4.8 Non-Substantive Reorganization and Revision of Regulatory Language

The proposed amendments also include a major reorganization of Regulation 2, Rule 2. This reorganization is not intended to make substantive changes to the way NSR permitting works. (The various areas in which substantive changes are being proposed are described elsewhere.) It is simply intended to make the regulation clearer and easier to understand and implement. In addition, the regulatory language that implements the NSR permitting requirements is being revised and clarified in a number of places, for similar reasons. The proposed amendments also make a few such changes in the other Rules in Regulation 2 that are being updated as part of this project.

2.4.4.9 Additional Details Regarding Proposed Amendments Provided In Draft Regulatory Language and Staff Report

The foregoing discussion is a summary of the changes that would be made under the proposed amendments. To understand these proposed amendments in more detail, please refer to the specific regulatory language of the proposed amendments that is contained in Appendix B. Further detailed discussion of the District's reasons for the proposed amendments and how they will work in practice is also provided in the Staff Report that Air District Staff are publishing concurrently with this EIR.