

APPENDIX A

APPLICABLE AIR QUALITY REGULATIONS

FEDERAL REGULATIONS

Clean Air Act of 1969 (42 U.S.C. Section 7401 et seq.)

Air quality regulations were first promulgated with the Clean Air Act of 1969 (CAA). The CAA is intended to protect national air quality by regulating emissions of air pollutants. The CAA is applicable to permits and planning procedures related to project activities onshore and within the territorial sea. The territorial sea is defined as waters 3 miles seaward of the nearest shoreline. Section 118 of the CAA (42 USC 7418) requires all federal agencies engaged in activities that may result in the discharge of air pollutants to comply with state and local air pollution control requirements. In addition, Section 176 of the CAA (42 USC 7506) prohibits federal agencies from engaging in any activity that does not conform to an approved State Implementation Plan (SIP).

The CAA established the National Ambient Air Quality Standards (NAAQS) and delegated enforcement of air pollution control to the states. The California Air Resources Board (ARB) is responsible for the enforcement of air pollution regulations. The ARB, in turn, has delegated the responsibility for regulating stationary emission sources to local air pollution agencies. In the project area, this agency is known as the Bay Area Air Quality Management District (BAAQMD).

The NAAQS shown in Table A-1 include both primary and secondary pollutant standards. Primary standards are mandated to protect public health, while secondary standards are intended to protect public welfare from any known or anticipated adverse effects of a pollutant, such as materials soiling, vegetation damage, and visibility impairment. The CAA states that all federal and state ambient air quality standards must be maintained during the operation of any emission source.

The CAA delegates to each state the authority to establish its own air quality rules and regulations. State adopted rules and regulations must be at least as stringent as the federal requirements. In states where the NAAQS are exceeded, the CAA requires preparation of a SIP, that identifies how the state will meet the federal standards within mandated time frames (as outlined in the Clean Air Act Amendments of 1990).

The Clean Air Act Amendments of 1990 (42 USC 7401 et seq., as amended by P.L. 101-549)

The Clean Air Act Amendments of 1990 (1990 CAA) revised the planning provisions for areas that do not meet the NAAQS. The 1990 CAA identifies new nonattainment classifications and compliance dates, specific emission reduction goals, a demonstration of reasonable further progress and attainment, and incorporates more stringent sanctions for failure to attain or meet interim milestones. The severity of the nonattainment classification determines the requirements and compliance dates for reaching attainment.

To determine progress toward attainment of the O₃ standard, nonattainment regions must reduce VOC emissions basinwide by 15 percent for the first 6 years and by an average 3 percent per year thereafter until the region reaches attainment. The SIP must contain control measures that will facilitate the reduction in emissions and show progress toward attainment of the O₃ standard. With regard to CO and PM₁₀ nonattainment areas, plans must be submitted that identify ways to reduce these emissions and show progress toward attainment.

Table A-1 National and California Ambient Air Quality Standards

The 1990 CAA states that a federal agency cannot support an activity unless the agency determines that the activity will conform to the most recent EPA-approved SIP within the region of the proposed action. This means that federally supported or funded activities will not (1) cause or contribute to any new air quality standard violation, (2) increase the frequency or severity of any existing standard violation or, (3) delay the timely attainment of any standard or any required interim emission reductions or other milestones in any area.

In accordance with Section 176(c) of the 1990 CAA, the EPA promulgated the final conformity rule for general federal actions in the November 30, 1993 *Federal Register*. Based on this rule and the present attainment status of the San Francisco Bay Area Air Basin (SFBAAB), the proposed action would conform to the most recent EPA-approved SIP if annual project emissions remain below the following levels: (1) 100 tons of CO or 50 tons of VOC. The BAAQMD showed in their *Ozone Maintenance Plan* that control of VOCs alone would demonstrate attainment of the national ozone standard for the next 10 years (through 2006) in the SFBAAB. This plan was approved by the EPA in May 1996 and included an exemption from controlling NOx emissions (the other component to ozone formation) for the purpose of attainment planning, assuming that the region remains in compliance with the ozone standard. Consequently, this NOx exemption also applies to ozone conformity determinations in the SFBAAB and only VOC emissions need to be analyzed for this analysis. Appendix C provides the results of the project conformity analysis.

STATE REGULATIONS

Pursuant to the CAA, the ARB established the CAAQS, which are more restrictive than the NAAQS and include pollutants for which there are no federal standards.

California Clean Air Act of 1988, as amended in 1992

The California Clean Air Act (CCAA) outlines a program to attain the CAAQS for O₃, CO, NO₂, and SO₂ by the earliest practical date. However, areas in nonattainment for PM₁₀, lead, sulfates, hydrogen sulfide, and visibility are not expressly required to develop an attainment plan under the CCAA. Since the SFBAAB is presently in nonattainment of the CAAQS for O₃, the BAAQMD is required to reduce O₃ precursor emissions by five percent annually, until this standard is reached. Exceptions to this requirement are allowed only if the attainment plan contains all feasible measures to control emissions. The requirements and compliance dates for reaching attainment are based on the severity of the nonattainment classification. Since the CAAQS are more restrictive than the NAAQS, emission reductions beyond what would be required to show attainment for the NAAQS will be needed. Consequently, the main focus of attainment planning in California has shifted from the federal to state requirements.

LOCAL REGULATIONS

BAAQMD Rules and Regulations

Rules adopted by local air pollution control districts and accepted by the ARB are included in the SIP. When approved by the EPA, these rules become federally enforceable. The BAAQMD, having received the necessary approvals, has developed the *BAAQMD Rules and Regulations* to regulate stationary sources of air pollution in the SFBAAB. Selected rules and regulations pertinent to the project and related activities described in this document are summarized below.

- *Regulation 1, Section 301 - Public Nuisance.* This rule states that no person shall discharge from any source air contaminants that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or public, or that endangers the comfort, repose, health, or safety of any such persons or public, or that causes, or has a tendency to cause, injury or damage to business or property.

- *Regulation 6* identifies standards that limit particulate matter emissions and the visibility and opacity of effluent from all sources.
- *Regulation 7* identifies limitations on odorous substances and specific emission limitations on certain odorous compounds.
- *Regulation 9, Rule 1, Section 304* states that a person shall not burn any liquid fuel having a sulfur content in excess of 0.5 percent by weight.

The following thresholds used by the BAAQMD to determine the significance of emissions for CEQA analyses would apply to the proposed project alternatives: (1) emissions of PM₁₀ during construction would be significant if fugitive dust control measures identified by the BAAQMD would not be implemented during construction activities (BAAQMD 1995).

Attainment/Maintenance Plans

Ever since the NAAQS for O₃ was promulgated by the EPA in 1971, violations of this standard have occurred annually in the SFBAAB until recently. Pursuant to the regulations of the CAA, the ARB was required to periodically submit plans to the EPA that would demonstrate attainment or progress toward attainment of the O₃ standard, beginning in 1979. These *attainment plans*, authored largely by the BAAQMD, outlined measures that would reduce emissions mainly from stationary sources and eventually bring the region into attainment. Due to the success of these plans and the decrease in emissions from on-road vehicles over the last two decades, no O₃ violations occurred in the SFBAAB from 1990 through 1992. In 1993, the BAAQMD requested the EPA to redesignate the region as attainment for O₃ in the *Redesignation Request and Maintenance Plan for the National O₃ Standard* (O₃ Maintenance Plan) (BAAQMD, ABAG, and MTC 1993). Upon final approval of the O₃ Maintenance Plan by the EPA, this redesignation became effective on June 21, 1995.

Based upon measures that reduce VOC emissions and a demonstration that NO_x emissions would not increase in future years, the O₃ Maintenance Plan shows continued attainment of the NAAQS for O₃ in the SFBAAB for at least 10 years. However, during heat waves in the summer of 1995, exceedances of the NAAQS for O₃ occurred in the SFBAAB. Consequently, additional control measures contained in the O₃ Maintenance Plan, such as NO_x Reasonably Available Control Technologies (RACT), may have to be implemented by the BAAQMD.

In addition to the O₃ redesignation, the BAAQMD requested the EPA to redesignate the SFBAAB as in attainment of CO, since the region did not record any violations of the 8-hour CO NAAQS for the 2-year period of 1992-1993 (the 1-hour standard for CO has not been exceeded in the region since 1985). Credit for this air quality improvement can be traced to improvements in the vehicle inspection and maintenance (I&M) program, additional contingency measures adopted in 1990, and the introduction of a wintertime oxygenated fuels program, as required by the 1990 CAA. The request for redesignation is presented in the *Redesignation Request and Maintenance Plan for the National CO Standard* (BAAQMD, ABAG, and MTC 1994). This CO Maintenance Plan contains a contingency measure that would improve the effectiveness of the existing I&M program in the event of a CO standard violation.

In conformance with the CCAA, the BAAQMD developed the *Bay Area 1994 Clean Air Plan* (CAP) to bring the SFBAAB into attainment with the O₃ CAAQS (BAAQMD 1994). The CAP is an updated version of the 1991 plan and includes eight additional control measures beyond what were proposed in the 1991 plan. These measures represent all feasible measures to control O₃ precursor emissions in the SFBAAB. Nevertheless, the CAP cannot demonstrate attainment of the state O₃ standard by 1997. As a result, the BAAQMD will be required to update the CAP in 1997 to report on progress toward attainment of the state O₃ standard.

Application of all feasible control measures outlined in the CAP would theoretically reduce basinwide emissions of ROG and NO_x by 13.6 and 7.3 percent, respectively, during the 1994 through 1997 planning period.

Emission control measures proposed in the CAP include indirect and area source control programs, application of Best Available Retrofit Control Technology (BARCT) to existing stationary sources, a modification of the permitting program to achieve no net increase in emissions from permitted sources with a potential to emit more than 15 tons per year of O₃ precursor pollutants, consideration of transportation control measures that will reduce vehicle miles travelled, and significant use of low-emission motor vehicles by vehicle fleet operators.

A determination of project consistency with each plan is required to evaluate if the proposed action would interfere with the attainment or maintenance strategy outlined in these documents. A proposed action generally would be consistent with the intent of a plan if project emissions are included in the future emission inventories forecasted in the plan. In general, construction emissions are considered to be consistent with the regional air quality plans, since they are included in emission inventories that form a basis for these plans and are not expected to inhibit attainment or maintenance of the O₃ and CO standards in the SFBAAB (BAAQMD 1995).

