

# **Bay Area Air Quality Management District**

**Draft Staff Report**  
**April 2003**

## **Appendix D**

**CEQA Initial Study**

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT**  
**939 ELLIS STREET**  
**SAN FRANCISCO, CA 94109**

**CEQA INITIAL STUDY**

**BACKGROUND**

**Project**

Proposed Adoption of:  
BAAQMD Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants  
BAAQMD Manual of Procedures Volume II, Part 4: New and Modified Sources of  
Toxic Air Contaminants

Proposed Amendments of:  
BAAQMD Regulation 2, Rule 1: General Requirements  
BAAQMD Regulation 3: Fees

**Lead Agency**

Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, CA 94109

**Contact Person**

Brian Bateman, (415) 749-4653, e-mail: [bbateman@baaqmd.gov](mailto:bbateman@baaqmd.gov)

**Project Location**

This rule applies within the area covered by the Bay Area Air Quality Management District. The District includes all of seven counties - Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa - and portions of two others - southwestern Solano and southern Sonoma.

**Project Description**

This project involves the adoption of the District's Risk Management Policy into BAAQMD regulations as Regulation 2, Rule 5 (New Source Review of Toxic Air Contaminants). The proposed rule includes amendments to the current policy, which are intended to bring the District's Toxic New Source Review program into conformance with the California Air Resources Board (CARB) Risk Management Guidelines for New and Modified Sources of Toxic Air Contaminants. These amendments will also incorporate revised health effects data and risk assessment procedures established by the Office of Environmental Health Hazard Assessment (OEHHA). The proposed amendments to Regulation 2, Rule 1 are necessary for consistency with the proposed Regulation 2, Rule 5. The proposed amendments to Regulation 3 will modify the toxic surcharge fees

for sources subject to Regulation 2, Rule 5, in order to offset the anticipated increases in costs for conducting health risk screening analyses.

Under the Risk Management Policy that was adopted in 1987, the District has been evaluating the health impacts of projects involving new or modified sources of toxic air contaminants (TAC). The health impacts due to carcinogenic compound emissions are measured as cancer risk, while the chronic (or long-term) health impacts due to non-carcinogenic emissions are measured as chronic hazard index. Under the current policy, Best Available Control Technology for Toxic emissions (TBACT) is required for projects resulting in a cancer risk of greater than 1 in one million or a chronic hazard index of greater than 1.0. Most projects are limited to a cancer risk of 10 in one million and a chronic hazard index of 1.0. Some specific types of projects, such as those involving dry cleaners or diesel fired internal combustion engines, may be approved, if the project risk does not exceed 100 in one million and the project is using TBACT and additional APCO-approved risk reduction measures. The proposed rule will reduce the TBACT trigger level from a chronic hazard index of 1.0 to a chronic hazard index of 0.2. This rule will also require that projects be evaluated for a third health risk measure: acute hazard index, which measures the short-term health impacts due to non-carcinogenic emissions. The use of OEHHA's risk assessment procedures and health effects data may result in a project risk that is higher than a project risk that would have been estimated using the District's current procedures.

These proposed changes will result in a more stringent New Source Review program for TAC. Staff expects that the number of projects requiring health risk screening analyses and the complexity of these analyses will increase. Staff also expects increases in the number of projects required to meet TBACT requirements and the number of projects required to implement additional risk reduction measures.

### **Environmental Setting**

The BAAQMD is classified as a non-attainment area for the California and federal ambient air quality standards for ozone. The environmental setting for this rule is fully described in the final EIR prepared for the Bay Area 1991 Clean Air Plan.

### **Other Approvals Required**

None

### **Environmental Factors Potentially Affected**

A check beside an impact category below indicates that, for the category, this project involves at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

\_\_\_\_\_ Aesthetics

\_\_\_\_\_ Agriculture Resources

\_\_\_\_\_ Air Quality

\_\_\_\_\_ Biological Resources

\_\_\_\_\_ Cultural Resources

\_\_\_\_\_ Geology / Soils

Hazards/Hazardous Mat'l     Hydrology/Water Quality     Land Use/Planning  
 Mineral Resources     Noise     Population/Housing  
 Public Services     Recreation     Transportation/Traffic  
 Utilities/Service Systems     Mandatory Findings of Significance  
 No Potentially Significant Impacts

### DETERMINATION

On the basis of this initial evaluation:

- I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that, although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (1) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (2) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures from the EIR that are imposed upon the proposed project.

\_\_\_\_\_  
 Brian Bateman  
 Manager, Toxic Evaluation Section

\_\_\_\_\_  
 Date

## ENVIRONMENTAL IMPACT CHECKLIST

(Note: All answers are explained on attached sheets.)

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>1. Aesthetics.</b> Would the proposal:				
a. Have a substantial adverse effect on a scenic vista?	_____	_____	_____	_____X_____
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	_____	_____	_____	_____X_____
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	_____	_____	_____X_____	_____
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	_____	_____	_____	_____X_____
<b>2. Agriculture Resources.</b> Would the proposal:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	_____	_____	_____	_____X_____
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	_____	_____	_____	_____X_____
c. Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	_____	_____	_____	_____X_____
<b>3. Air Quality.</b> Would the proposal:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	_____	_____	_____	_____X_____
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	_____	_____	_____X_____	_____

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	_____	_____	<u>  X  </u>	_____
d. Expose sensitive receptors to substantial pollutant concentrations?	_____	_____	<u>  X  </u>	_____
e. Create objectionable odors affecting a substantial number of people?	_____	_____	_____	<u>  X  </u>

**4. Biological Resources.** Would the project:

a. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	_____	_____	_____	<u>  X  </u>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	_____	_____	_____	<u>  X  </u>
c. Have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	_____	_____	_____	<u>  X  </u>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	_____	_____	_____	<u>  X  </u>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	_____	_____	_____	<u>  X  </u>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	_____	_____	_____	<u>  X  </u>
<b>5. Cultural Resources.</b> Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	_____	_____	_____	<u>  X  </u>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	_____	_____	_____	<u>  X  </u>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	_____	_____	_____	<u>  X  </u>
d. Disturb any human remains, including those interred outside of formal cemeteries?	_____	_____	_____	<u>  X  </u>
<b>6. Geologic and Soils.</b> Would the project:				
a. Expose people or structure to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to the Division of Mines and Geology Special Publication 42)	_____	_____	_____	<u>  X  </u>
ii. Strong seismic ground shaking?	_____	_____	_____	<u>  X  </u>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
iii. Seismic-related ground failure, including liquefaction?	_____	_____	_____	<u>  X  </u>
iv. Landslides?	_____	_____	_____	<u>  X  </u>
b. Result in substantial soil erosion or the loss of topsoil?	_____	_____	_____	<u>  X  </u>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	_____	_____	_____	<u>  X  </u>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	_____	_____	_____	<u>  X  </u>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	_____	_____	_____	<u>  X  </u>

**7. Hazards and Hazardous Materials.** Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	_____	_____	<u>  X  </u>	_____
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	_____	_____	_____	<u>  X  </u>
c. Emit hazardous materials or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	_____	_____	<u>  X  </u>	_____

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	_____	_____	<u>  X  </u>	_____
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	_____	_____	_____	<u>  X  </u>
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	_____	_____	_____	<u>  X  </u>
g. Impair the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	_____	_____	_____	<u>  X  </u>
h. Expose people or structures to a significant risk of loss, injury, or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?	_____	_____	_____	<u>  X  </u>
<b>8. Hydrology and Water Quality.</b> Would the project:				
a. Violate any water quality standards or waste discharge requirements?	_____	_____	<u>  X  </u>	_____
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net reduction in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	_____	_____	_____	<u>  X  </u>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	_____	_____	_____	<u>  X  </u>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	_____	_____	_____	<u>  X  </u>
e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	_____	_____	_____	<u>  X  </u>
f. Otherwise substantially degrade water quality?	_____	_____	_____	<u>  X  </u>
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	_____	_____	_____	<u>  X  </u>
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	_____	_____	_____	<u>  X  </u>
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	_____	_____	_____	<u>  X  </u>
j. Inundation by seiche, tsunami, or mudflow?	_____	_____	_____	<u>  X  </u>
<b>9. Land Use and Planning.</b> Would the project:				
a. Physically divide an established community?	_____	_____	_____	<u>  X  </u>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	_____	_____	_____	<u>  X  </u>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	_____	_____	_____	<u>  X  </u>

**10. Mineral Resources.** Would the project:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	_____	_____	_____	<u>  X  </u>
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	_____	_____	_____	<u>  X  </u>

**11. Noise.** Would the project result in:

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	_____	_____	_____	<u>  X  </u>
b. Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	_____	_____	_____	<u>  X  </u>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	_____	_____	<u>  X  </u>	_____
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	_____	_____	<u>  X  </u>	_____

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	_____	_____	<u>  X  </u>	_____
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	_____	_____	<u>  X  </u>	_____

**12. Population and Housing.** Would the project:

a. Induce substantial growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	_____	_____	_____	<u>  X  </u>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	_____	_____	_____	<u>  X  </u>
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	_____	_____	_____	<u>  X  </u>

**13. Public Services.** For any of the following public services, would the project require the construction of new or physically-altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives, thereby producing significant environmental impacts:

a. Fire protection?	_____	_____	<u>  X  </u>	_____
b. Police protection?	_____	_____	_____	<u>  X  </u>
c. Schools?	_____	_____	_____	<u>  X  </u>
d. Parks?	_____	_____	_____	<u>  X  </u>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e. Other public facilities?	_____	_____	_____	<u>  X  </u>
<b>14. Recreation.</b>				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	_____	_____	_____	<u>  X  </u>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	_____	_____	_____	<u>  X  </u>
<b>15. Transportation and Traffic.</b> Would the project:				
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	_____	_____	<u>  X  </u>	_____
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	_____	_____	_____	<u>  X  </u>
c. Produce a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	_____	_____	_____	<u>  X  </u>
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?	_____	_____	_____	<u>  X  </u>
e. Result in inadequate emergency access?	_____	_____	_____	<u>  X  </u>
f. Result in inadequate parking capacity?	_____	_____	_____	<u>  X  </u>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	_____	_____	_____	<u>  X  </u>

**16. Utilities and Service Systems.** Would the project:

a. Exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board?	_____	_____	<u>  X  </u>	_____
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	_____	_____	_____	<u>  X  </u>
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	_____	_____	_____	<u>  X  </u>
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	_____	_____	_____	<u>  X  </u>
e. Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	_____	_____	_____	<u>  X  </u>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	_____	_____	_____	<u>  X  </u>
g. Comply with federal, state, and local statutes and regulations related to solid waste?	_____	_____	<u>  X  </u>	_____

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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**17. Mandatory Findings of Significance.**

- |  |       |       |             |             |
|--|-------|-------|-------------|-------------|
| <p>a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?</p> | _____ | _____ | _____X_____ | _____       |
| <p>b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)</p>  | _____ | _____ | _____       | _____X_____ |
| <p>c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>   | _____ | _____ | _____X_____ | _____       |

## DISCUSSION OF ENVIRONMENTAL IMPACTS

Proposed Adoption of Regulation 2, Rule 5 and  
Manual of Procedures Volume 2, Part 4; and  
Proposed Amendments to Regulation 2, Rule 1 and Regulation 3:

### Introduction

This section of the Initial Study explains the reasons for checking the particular items in the checklist. Explanations are provided both for those items involving some potential impact and those for which no impact is anticipated.

### Background

The anticipated impacts of these proposed regulations and amendments are:

- the number of projects subject to the health risk screening analysis requirement will increase,
- the complexity of many risk screening analyses will increase,
- the number of projects subject to TBACT requirements will increase, and
- the number of projects using additional risk reduction measures in order to comply with the project risk requirements will increase.

Increasing the number of projects subject to TBACT requirements and risk reduction measures may result in increased use of pollution capture equipment, add-on control devices, solvent substitutes, less toxic fuels, and increases in the exhaust stack height. These changes could result in the emission of new types of compounds. Affected facilities may have small increases in water or natural gas usage or may need to handle and dispose of minor quantities of wastewater or hazardous materials. The additional control equipment and possible increase in stack heights could potentially have some visual impacts.

The proposed revisions to Regulation 3 affect the fees for these projects and are not expected to have any direct impact on environmental resources. However, higher fees for projects involving TAC(s) may act as a disincentive to the use of a TAC(s) and indirectly result in changes to a proposed project. Likely changes include modifying a proposed process to prevent the emission of a TAC and choosing less toxic raw materials, solvents, or fuels.

#### 1. Aesthetics

The proposed rule and related amendments will not affect scenic vistas or other scenic resources and will not create light or glare.

It is possible that the proposed rule could have an impact on the visual character of a site by requiring the use of an add-on control device to meet TBACT requirements or by requiring an increase in stack height as a risk reduction

measure. The changes in the footprint of buildings and the height of stacks due to the proposed rule are expected to be small compared to the overall nature of the site. Therefore, these impacts are not expected to be significant.

## **2. Agriculture Resources**

The proposed rule will impact industrial facilities and other stationary sources. Although it is possible that such sources could be located on or near land that is zoned for agricultural use, this rule will have no impact on the use of such land for farming or any other agricultural purposes. Therefore, the proposed rule will have no impact on agricultural resources.

## **3. Air Quality**

The proposed rule and related amendments are intended to prevent significant health impacts due to toxic air contaminant (TAC) emissions. Compared to the current Risk Management Policy, the proposed rule is expected to result in more sources employing TBACT and risk reduction measures. TBACT and risk reduction measures may include pollution prevention measures, emission control techniques, and other methods to reduce human exposure to TAC emissions.

Pollution prevention measures involve changes to raw materials, solvents, fuels, or processes that eliminate the use or generation of a TAC. Two common pollution prevention measures that may be used more frequently as a result of the proposed rule are: (1) use of petroleum solvent, methylated siloxanes, or other less toxic solvents instead of perchloroethylene in dry cleaning machines; and (2) use of natural gas, propane, or other fuels that do not produce diesel particulate matter instead of diesel oil in stationary internal combustion engines.

Although perchloroethylene is a TAC, it is a non-precursor organic compound (NPOC) that does not contribute to the formation of ground level ozone, or smog. Since methylated siloxanes are also NPOC, this solvent substitute will reduce TAC emissions and will have no impact on smog formation. However, petroleum solvents are precursor organic compounds (POC) that do contribute to the formation of ground level ozone. Switching from perchloroethylene to petroleum solvent will result in POC emission increases. The operating and emission control requirements in BAAQMD Regulation 8, Rule 17 and the new source review requirements (BACT and Offsets) in BAAQMD Regulation 2, Rule 2 will prevent these POC emission increases from becoming significant.

For stationary internal combustion engines, the most common fuel substitutes for diesel oil include: natural gas, propane, LPG, CNG, gasoline, and bio-diesel. Any engines affected by the proposed rule will be required to meet all applicable BACT and Offset requirements in BAAQMD Regulation 2, Rule 2. For engines meeting BACT, the emissions from an engine using a substitute fuel for diesel oil will be no greater than the emissions from a comparable diesel oil fired engine.

Therefore, using substitute fuels is expected to reduce the health impacts from TAC emissions without increasing emissions of any criteria pollutants.

Emission control techniques include the capture and removal and/or destruction of the TAC. Carbon adsorbers, condensers, and water scrubbers are common emission removal methods. Catalytic and thermal oxidizers and caustic scrubbers are abatement devices that destroy the TAC as part of the control process. Oxidizing diesel particulate filters have both emission removal and emission destruction aspects. Carbon adsorbers, condensers, scrubbers, and oxidizing diesel particulate filters are not expected to produce any additional air emissions. However, thermal and catalytic oxidizers cause emissions of nitrogen oxides, carbon monoxide, particulate matter, sulfur dioxide, and combustion byproducts such as formaldehyde. Secondary criteria pollutant emissions will be required to meet reasonably available control technology (RACT) by BAAQMD Regulation 2, Rule 2. Projects requiring oxidizers generally have emissions of POC as well as TAC; and the oxidizers serve a dual function of reducing both POC and TAC emissions. The secondary emission increases of nitrogen oxides are generally small compared to the POC emissions reductions achieved by the oxidizer, resulting in an overall reduction in ozone precursors. Carbon monoxide, sulfur dioxide and particulate matter emissions are generally low from properly operated oxidizers. Permit conditions are typically imposed to minimize these emissions and ensure compliance with RACT requirements. BAAQMD Regulation 2, Rule 5 will require that any TAC byproducts from an oxidizer be considered as part of the project to ensure that the health impacts from the entire project will be reduced. While the use of oxidizers as a TBACT and/or risk reduction measure will result in some emission increases, these increases are not expected to be significant, because the emissions will be limited by RACT, BACT, and TBACT requirements and permit conditions.

Risk reduction measures that reduce human exposure to a TAC affect how and where a pollutant is emitted and not the amount or type of pollutant emitted. Examples of such measures are increasing stack height or ventilation rate or relocating a source farther away from the public. These measures will increase the amount of dispersion that occurs in the atmosphere and will result in lower concentrations of the pollutant at the locations where people live or work. The lower TAC concentrations at the receptor locations reduce health impacts to the surrounding community but have no adverse impacts on air quality.

The proposed rule may result in some air pollutant emission increases such as POC emission increases due to the replacement of perchloroethylene at dry cleaners and combustion pollutant emission increases due to the use of catalytic or thermal oxidizers. However, BAAQMD new source review requirements and other District regulations will ensure that these emission increases do not exceed any thresholds of significance.

#### **4. Biological Resources**

All construction projects related to the proposed rule and amendments are expected to occur in existing industrial or commercial areas. While it is possible that these existing industrial or commercial areas could be located in or near sensitive species habitats, wetlands, or other biological resources, the potential control methods that may be employed are expected to cause only small increases, or in many cases no changes, in the overall size of the project. Such minor changes in project size will not adversely impact sensitive or protected species, their habitats, riparian habitats, natural communities, wetlands, or other protected areas. Material substitutions that may occur because of this rule are expected to result in the use of less toxic substances, which would have a beneficial effect on biological resources. Consequently, the proposed regulation amendments will have no adverse impacts on biological resources.

## **5. Cultural Resources**

Projects affected by this proposed rule are not expected to be located on or near important historical, archeological, paleontological, or geological sites. The proposed rule will not cause the disturbance of any human remains. Therefore, this rule will have no impact on cultural resources.

## **6. Geology and Soils**

The proposed amendments will not result in any construction outside of existing industrial or commercial facilities. On site construction activities will be very minor and will not result in the exposure of people or property to adverse affects from earthquakes, ground movement, landslides, or erosion. Such projects are not expected to be located on unstable or expansive soils or to have any impacts on the use of septic tanks. Thus no significant geological hazards are anticipated.

## **7. Hazards and Hazardous Materials**

The proposed rule could require the use of control methods (such as carbon adsorption or caustic scrubbing) that would result in the use, transport, handling, or disposal of hazardous materials, such as spent carbon or sodium hydroxide. It is possible that some projects might result in the emission of a hazardous material or might be located at a listed hazardous site. However, the potential hazards associated with the transport, handling, and disposal of hazardous materials will not be significant, because facilities using these materials will be required to comply with Title 27 of the California Code of Regulations and Title 40 of the Code of Federal Regulations, which govern hazardous materials. In addition, the hazardous materials that might be used in relation to this rule are expected to be much less hazardous than the emissions these materials are controlling.

While it is possible that projects impacted by this rule could be located at an airport or private air strip, the use of control devices or alternate materials is not expected to present a safety hazard.

The proposed rule will not interfere with plans for emergency evacuations, emergency response, or prevention of wild land fires.

Although the proposed rule could result in some hazardous material impacts, the existing California and federal regulations governing the transport, handling, and disposal of hazardous materials will prevent these impacts from becoming significant. No other hazards are anticipated.

## **8. Hydrology and Water Quality**

The proposed rule could result in the use of control methods, including scrubbers, regenerative carbon adsorbers, alternative processes, or substitute materials, that may generate wastewater streams. It is possible that the contaminants in an untreated wastewater stream could exceed a water quality standard or a waste discharge requirement. Regional Water Quality Control Board regulations will require treatment of this wastewater, when necessary, and will prevent the improper disposal of wastewater streams. These regulations will ensure that the impacts from generating wastewater will be less than significant.

The proposed rule will not require the use of groundwater and is not expected to alter the surface water amounts or drainage patterns for a site.

Since this proposed rule will not require the construction of new facilities, no impacts due to flooding or other natural disasters are expected.

## **9. Land Use and Planning**

All projects affected by the proposed rule will be required to comply with any applicable zoning rules, land use requirements, and other plans. The potential control equipment choices for these projects are not expected to conflict with any land use laws or plans. Therefore, the proposed rule is not expected to have any land use or planning impacts.

## **10. Mineral Resources**

The proposed rule may require the use of natural gas or other gaseous fuels to fire combustion type control devices such as thermal oxidizers. Natural gas, propane, or other clean fuels may be required as substitutes for diesel oil, which produces toxic particulate matter when burned in internal combustion engines. However, the additional amounts of clean fuels that may be used as a result of the proposed rule is negligible compared to regional usage rates of natural gas

and other clean fuels. Therefore, this rule is not expected to have any impacts on fuel resources.

The proposed rule is not expected to have impacts on any other mineral resources.

### **11. Noise**

Add-on control devices like thermal oxidizers, carbon adsorbers, and scrubbers and auxiliary equipment such as pumps and compressors generate noise during operation. Trucks delivering raw materials to or hauling waste away from these control operations are a temporary source of noise. People working on the project site or in the vicinity of the project could be exposed to noise from the operation of the control equipment or from occasional vehicle traffic. The noise levels produced by these operations and vehicles are expected to be low. No mitigation measures are expected to be necessary in order to keep noise levels below significance thresholds. Thus, noise levels are not expected to have any significant impacts.

### **12. Population and Housing**

The proposed rule may require the use of control devices, alternative processes, or substitute materials at a project. These minor changes in the scope of a project will have no impact on population growth, housing needs, or the displacement of people.

### **13. Public Services**

The proposed rule may require the use of abatement equipment at some sites. Possible technologies include thermal oxidizers, carbon adsorbers, and caustic scrubbers. Thermal oxidizers are used to combust organic compounds and may pose a slight increase in the risk of fire at affected facilities. Similar systems currently in use at sites throughout the Bay Area have had minimal impact on demand for fire services. Carbon adsorbers and caustic scrubbers involve handling of hazardous materials (spent carbon and sodium hydroxide, respectively). The storage, handling, and transport of hazardous materials could potentially result in an accidental release requiring emergency response services. However, the quantity of hazardous materials associated with these operations is small. The presence and handling of hazardous materials associated with carbon adsorbers and caustic scrubbers are not expected to significantly increase demand for emergency response services. Also, various local, State and federal regulations impose requirements on the storage, handling, transport and disposal of hazardous materials. These regulations include those found in Section 40 of the Code of Federal Regulations and Title 27 of the California Code of Regulations. Compliance with applicable regulations will further reduce the significance of this impact.

Implementation of the proposed rule will not increase demand for police protection, schools, parks, or other public services.

#### **14. Recreation**

This project will not require any new parks or other recreational facilities and will not change the usage rate or size of any existing recreational facilities. Thus, no recreational impacts are anticipated.

#### **15. Transportation and Traffic**

The proposed rule could result in a slight increase in truck traffic due to the delivery of materials needed by a control option or due to a need to haul away additional waste materials. However, the change in traffic volume is expected to be negligible compared to current traffic volumes. Also, the additional vehicle traffic is expected to occur infrequently. These occasional, few additional vehicle trips will not cause any significant increases in congestion.

The use of add-on control devices or alternative materials will have no effect on air traffic volume or air traffic patterns.

Facilities affected by the requirements of this rule are expected to have adequate road design features, emergency access, and parking for the types of vehicles that may be used to delivery materials or haul wastes. Therefore, the proposed rule will have no impact on these transportation aspects.

The proposed rule is not expected to conflict with any alternative transportation policies, plans, or programs.

#### **16. Utilities and Service Systems**

Affected facilities may require additional control as a result of the proposed rule. The appropriate control method depends on the type of toxic air contaminant emission from a project. Some of the possible control techniques require water or natural gas and generate wastewater or solid waste.

Scrubbers and regenerative carbon adsorbers generate wastewater. It is possible that the contaminants in an untreated wastewater stream could exceed a water treatment requirement. Industrial facilities that may be affected by the proposed rule are expected to have the wastewater treatment capabilities necessary to handle the small amounts of wastewater that might be generated by scrubbers or regenerative carbon adsorbers. Facilities without on-site wastewater treatment capabilities will need to have any wastewater that exceeds a discharge standard hauled to a treatment facility. Regional Water Quality

Control Board regulations will prevent the improper disposal of wastewater streams.

Although the use of scrubbers or regenerative carbon adsorbers as a control option will increase water usage and wastewater discharge rates at affected facilities, the amounts of water required and wastewater generated by these devices are expected to be very small compared to total water usage and wastewater discharge rates from these facilities. No new water resources, water facilities, or wastewater treatment facilities will be required due to this proposed rule.

No storm water impacts are expected, because the proposed rule will not change how storm water is collected at a facility or the amount of storm water that must be collected.

The use of carbon adsorption as a control option could generate spent carbon, which is considered a hazardous waste. Typically, the spent carbon is hauled to a facility that regenerates the carbon rather than to landfills. The use of abatement devices, alternative fuels, and material substitutes are not expected to generate any other solid wastes. Therefore, the proposed rule will not affect regional landfill capacity.

Carbon adsorption is a common control technology that is currently being handled by many facilities, safely and in compliance with the applicable California and federal regulations. The proposed rule may result in a small increase in the use of carbon in the Bay Area. However, this small increase in carbon usage will not impact compliance with any regulations concerning the proper handling and disposal of spent carbon. No other regulatory impacts are anticipated.

## **17. Mandatory Findings of Significance**

The proposed BAAQMD Regulation 2, Rule 5 will reduce the health impacts in the Bay Area due to toxic air contaminant emissions from new or modified sources. Since the proposed rule will only apply to new and modified sources, this rule will only impact future projects or future new facilities. Compared to the current risk management policy, the proposed rule may result in one or more of the following changes at a few affected facilities:

- larger building footprints or higher stack heights
- new or additional criteria pollutant emissions to the air
- handling, storage, transport, and disposal of hazardous materials
- usage of natural gas or water
- generation of a wastewater stream requiring treatment or disposal
- additional noise
- additional truck traffic
- potential increase in the need for emergency response services

These changes may result in minor impacts to visual character, air quality, hazardous materials, water quality, noise, public services, traffic, utilities, and service systems. However, each of the above changes is expected to be small compared to the overall size, needs, or emissions at the affected facilities. In addition, existing local, state, and/or federal regulations will limit the extent of most of these potential facility changes. The minor impacts resulting from these changes will not be significant due to the small size of the anticipated changes and due to regulatory limitations. Regulation 2, Rule 5 does not have the potential to reduce populations, habitats, or ranges of wild life or plants and will not eliminate any examples of history or prehistory. Therefore, the proposed rule and amendments will not result in any significant adverse environmental impacts.

Since Regulation 2, Rule 5 will only apply to new and modified sources of toxic air contaminants, the potential impacts from this rule will occur at only a few affected facilities throughout the Bay Area and will occur intermittently in the future. No cumulative environmental effects are anticipated, because of the disparate nature of any potential impacts.

The proposed Regulation 2, Rule 5 will have beneficial effects on human beings by reducing the health impacts due to toxic air contaminant emissions. Any potential increases in criteria pollutants that are necessary to achieve these health impact reductions are expected to be insignificant compared to regional emission rates and will not result in any increases in local or regional ozone or other criteria pollutant emission levels. No other effects on human beings are anticipated. Therefore, the proposed rule and amendments will have no substantial adverse effects on human beings.