

**Air Pollution Control Board**

Greg Cox	District 1
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Pam Slater	District 3
Ron Roberts	District 4
Bill Horn	District 5

Air Pollution Control Officer

R. J. Sommerville

NOTICE OF WORKSHOP

NOTICE OF WORKSHOP TO DISCUSS PROPOSED NEW RULE 1200 - NEW SOURCE REVIEW, TOXIC AIR CONTAMINANTS

The San Diego County Air Pollution Control District will hold a public workshop to consider a new Rule 1200 - New Source Review, Toxic Air Contaminants. Comments concerning this proposal may be submitted in writing before, or made at, the workshop which is scheduled as follows:

DATE: Thursday, June 22, 1995
TIME: 1:00 to 4:00 p.m.
PLACE: Al Bahr Shrine
5440 Kearny Mesa Road
San Diego CA

(Hwy 163 north to Clairemont Mesa west. Right turn on Kearny Mesa Road. Al Bahr located behind the Hampton Inn)

Rule 1200 is a proposed new rule that was developed to incorporate into the District's rules and regulations the District's current health risk evaluation process and criteria for approving new, modified and relocated equipment that emits toxic air contaminants. The requirements in Rule 1200 have been used by the District for the past 10 years to approve projects. The rule addresses cancer and noncancer (acute and chronic exposure) public health risks and the associated criteria for approving a project. The rule would allow approval of projects with cancer risks greater than the levels currently allowed if specified criteria are met. Rule 1200 was developed by a work group consisting of representatives of environmental groups, local businesses and the District.

Following is a summary of Rule 1200:

1. Automotive refinishing operations not using chrome or lead pigmented paints, asphalt roofing kettles and tanks, and dry cleaning and service station equipment using Best Available Control Technology for air toxics (T-BACT) are exempt from the rule. Equipment being modified solely to comply with other District rule requirements or state or federal air toxic emission control requirements is also exempt from Rule 1200. The District will develop streamlined risk assessment procedures for other types of common equipment to expedite the review of projects and add exemptions, as appropriate, based on the results of the streamlined procedures.
2. A listing of toxic air contaminants subject to Rule 1200 are specified.
3. Risk assessments, if required, must be done in accordance with state Office of Environmental Health Hazard Assessment (OEHHA) requirements and using OEHHA health effects data.
4. The risk management criteria (criteria for approving a project) specified in the rule are applicable to emission increases from a project. Projects can include emissions reductions from other existing emission units that the project applicant can use to offset emission increases from the new or modified emission units (i.e. the rule allows netting).
5. The emission increase associated with a project is defined as the difference between the project's potential to emit air toxics before modification and its potential to emit after modification.

5/10/95

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6. The risk management criteria for cancer risks from projects not equipped with T-BACT specifies that a project cannot cause an increase in the calculated potential for causing cancer of more than one in one million. For projects equipped with T-BACT, a project cannot cause an increase in the calculated potential for causing cancer of more than ten in one million. This reflects the District's current risk management criteria.

However, under proposed Rule 1200, an Authority to Construct may be granted for a project having a cancer risk increase of greater than 10 but less than 100 in one million if the following conditions are met:

- All emission units associated with the project that increase cancer risk by more than one in one million are equipped with T-BACT. All other emission units at the stationary source that have a cancer risk impact of greater than ten in one million at locations where the cancer risk as a result of the project exceeds ten in one million must also be equipped with T-BACT.
- The District prepares a report in support of approving the project.
- The stationary source operator prepares an annual report on risk reduction methods available for reducing risk from emission units associated with the project to less than 10 in one million, and implements methods approved by the District.
- The stationary source is in compliance with all applicable state and federal air toxic emission control requirements.
- The cancer burden (the calculated increase in the potential occurrence of cancer in the population subject to a risk) as a result of the project is equal to or less than one.
- The stationary source operator notifies affected persons of the project and hold a public meeting regarding the project after providing a 30 day notice.
- The District provides a 30 day period for the public to comment on the District's evaluation of the project and the project's ability to meet District requirements.
- If the increase in cancer risk as a result of the project is more than 50 in one million but less than 100 in one million, the stationary source operator must obtain all available risk reductions from off-site emission units (permitted) having a cancer risk impact of greater than ten in one million at locations where the cancer risk impact as a result of the project is greater than ten in one million.

These provisions for approving a project with an incremental cancer risk of greater than 10 but less than 100 in one million are not a part of the District's current risk management criteria.

7. The non-cancer risk management criteria specifies that a project cannot subject a person to an emission concentration greater than that deemed acceptable for the exposure period of concern (acute or chronic exposure) by the state OEHHA. This reflects the District's current risk management criteria.

If you would like a copy of proposed Rule 1200, please call Juanita Ogata at (619) 694-8851. If you have any questions, please call Mike Lake at (619) 694-3313 or me at (619) 694-3303.



RICHARD J. SMITH
Deputy Director

RJSm:jl
05/09/95

**AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO**

**PROPOSED NEW RULE 1200
NEW SOURCE REVIEW - TOXIC AIR CONTAMINANTS**

RULE 1200. NEW SOURCE REVIEW - TOXIC AIR CONTAMINANTS

(a) APPLICABILITY

Except as provided in Section (b) of this rule, this rule applies to any new, relocated, or modified emission unit which may increase emissions of one or more toxic air contaminant(s) and for which an Authority to Construct or Permit to Operate is required pursuant to Rule 10, or for which a Notice of Intention or Application for Certification has been accepted by the California Energy Commission. An Application for Certification shall be considered equivalent to an application for an Authority to Construct. Compliance with this rule does not relieve a person from having to comply with other applicable requirements in these rules and regulations, or state and federal law.

(b) EXEMPTIONS

(1) The standards of Section (d) shall not apply to:

(i) The modification of an emission unit made exclusively to comply with the Maximum Achievable Control Technology requirements of Section 112 of the Federal Clean Air Act or to comply with requirements of these rules and regulations adopted to implement federal Maximum Achievable Control Technology requirements.

(ii) The modification of an emission unit made exclusively to comply with a state Air Toxic Control Measure required by Division 26, Part 2, Chapter 3.5 of the California Health and Safety Code (AB 1807 program) or to comply with a requirement of these rules and regulations adopted to implement state Air Toxic Control Measure requirements.

(iii) An existing emission unit requiring a permit solely because of changes to Rule 11 of these rules and regulations provided the application for permit is submitted within one year after the applicable change to Rule 11 is adopted.

(iv) The modification of an emission unit made exclusively to implement a District approved risk reduction plan required by Division 26, Part 6, Chapter 6 of the California Health and Safety Code (SB 1731 program) or to comply with a requirement of these rules and regulations adopted to implement state SB 1731 program requirements.

(v) Dry cleaning emission units, provided that T-BACT will be installed.

(vi) Gasoline service station emission units, provided that T-BACT will be installed.

(vii) Asphalt roofing kettles and tanks.

(viii) Automotive refinishing operations not using chrome or lead pigmented coatings.

(2) The standards of Subsections (d)(1) and (d)(3) shall not apply to the modification of an emission unit made exclusively to comply with a requirement of these rules and regulations, but not including Rule 1200. The Air Pollution Control Officer may determine for good cause, on a case by case basis, that this exemption does not apply to a modified emission unit. In the event such a determination is made, written notice shall be provided by the Air Pollution Control Officer to the project applicant as soon as possible and before the application is deemed complete pursuant to Rule 18. This notice shall specify the specific reason why the Air Pollution Control Officer has determined that this exemption does not apply and shall specify what additional requirements the project applicant must meet.

(c) DEFINITIONS

(1) **"Air Toxic Control Measure (ATCM)"** means a requirement to reduce emissions of one or more toxic air contaminants developed pursuant to Division 26, Part 2, Chapter 3.5 of the California Health and Safety Code (AB 1807 program).

(2) **"Cancer Burden"** means the estimated potential increase in the occurrence of cancer cases in a population subject to an incremental cancer risk of greater than one in one million resulting from exposure to toxic air contaminants. It shall be calculated in accordance with procedures developed by the state Office of Environmental Health Hazard Assessment (OEHHA) and approved for use with Division 26, Part 6, Chapter 6 of the California Health and Safety Code (SB 1731 program).

(3) **"Concurrent Emission Reductions"** means permanent, quantifiable, enforceable, and surplus emission reductions occurring at the same stationary source and within the six months prior to or at the same time as the commencement of operations of new or modified emission units constituting a project.

Notwithstanding the definition of "Surplus", emission reductions required by Section 112 (MACT) of the federal Clean Air Act, or Division 26, Part 2, Chapter 3.5 (ATCM) of the California Health and Safety Code may be used as concurrent emission reductions if they occur before they are required by the applicable MACT or ATCM. However, their use as concurrent emission reductions shall expire on the date the reductions required by the applicable MACT or ATCM are actually required to take place. The Permit to Operate for any emission unit which has used such an emission reduction to satisfy in whole or in part the requirements of this rule, shall expire and become null and void on the date that the reductions required by the applicable MACT or ATCM are actually required to take place, unless additional concurrent emission reductions are provided in an amount necessary to satisfy the requirements of this rule.

(4) **"Emission Unit"** means any article, machine, equipment, contrivance, process or process line which emits or may emit one or more toxic air contaminants.

(5) **"Enforceable"** means can be enforced by the District through inclusion of conditions on a valid and current permit.

(6) **"Feasible Cancer Risk Reduction Measure"** means control measures that are technologically feasible and include, but are not limited to, pollution prevention measures such as product substitution or modification, process modification, feed stock modification, operational and maintenance improvements; changes in basic control equipment; and enclosing systems or processes to reduce emissions.

(7) **"Maximum Achievable Control Technology (MACT)"** means emission controls or limitations included in any Section 112 requirement of the federal Clean Air Act, including any implementing regulations of the U.S. Environmental Protection Agency, for any source class or category.

(8) **"Maximum Incremental Cancer Risk" (MICR)** means the estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to toxic air contaminant(s). It shall be calculated in accordance with procedures developed by the state Office of Environmental Health Hazard Assessment (OEHHA) and approved for use with Division 26, Part 6, Chapter 6 of the California Health and Safety Code (SB 1731 program).

(9) **"Modified Emission Unit"** means an emission unit which undergoes any physical or operational change which results or may result in an increase in an emission unit's toxic air contaminant potential to emit, including toxic air contaminants not previously emitted. An emission unit which undergoes the following shall not be considered a modified emission unit, provided such change is not contrary to any permit condition, and the change does not result in an increase in the toxic air contaminant potential to emit of any toxic air contaminant:

- (i) The movement of a portable emission unit from one stationary source to another.
- (ii) Repair or routine maintenance.
- (iii) An increase in the hours of operation.
- (iv) Use of alternate fuel or raw material.

(10) **"Permanent"** means enforceable and which will exist for the life of the project, as may be limited by enforceable permit conditions.

(11) **"Post-Project Potential To Emit"** means an emission unit's or an aggregation of emission units' potential to emit after issuance of an Authority to Construct for the proposed project.

(12) **"Pre-Project Potential To Emit"** means an emission unit's or an aggregation of emission units' potential to emit prior to issuance of an Authority to Construct for the proposed project. If specific conditions limiting an emission unit's pre-project potential to emit are not contained in an Authority to Construct or a Permit to Operate, the pre-project potential to emit shall be limited to the emission unit's actual emissions or to a lower level of emissions, as the applicant and the Air Pollution Control Officer may agree, provided such limitation is enforceable through permit conditions.

(13) **"Project"** means an emission unit or aggregation of emission units located at a stationary source for which an application or combination of applications for Authority to Construct or modified Permit to Operate are under District review. It includes any emission unit(s) modified to provide concurrent emission reductions.

(14) **"Quantifiable"** means that a reliable basis for calculating the amount, rate, nature and characteristics of an emission change can be established, as determined by the Air Pollution Control Officer.

(15) **"Receptor Location"** means any location beyond the project's stationary source boundaries where the Air Pollution Control Officer has determined exposure to the project (not including any emission unit modified to provide concurrent emission reductions) emissions could reasonably occur.

(16) **"Relocated"** means moved within San Diego County from one stationary source to another stationary source.

(17) **"Stationary Source"** means an emission unit or aggregation of emission units which are located on the same or contiguous properties and which units are under common ownership or entitlement to use. Properties shall be deemed to be contiguous properties if they are separated solely by a public roadway or other public right-of-way.

(18) **"Surplus"** means in excess of any emission reductions which are required by this rule, or which are required by or which the Air Pollution Control Officer reasonably expects will be required by Section 112 (MACT) of the federal Clean Air Act, or Division 26, Part 2, Chapter 3.5 (ATCM) of the California Health and Safety Code.

Emission reductions used as concurrent emission reductions as part of a project subject to the requirements of this rule which occur before the Air Pollution Control Officer reasonably expects they will be required by Section 112 (MACT) of the federal Clean Air Act, or Division 26, Part 2, Chapter 3.5 (ATCM) of the California Health and Safety Code shall be deemed to be permanently surplus. Emission reductions occurring before (date of adoption) are not surplus.

Emission reductions associated with Section 112 (MACT) of the federal Clean Air Act, or Division 26, Part 2, Chapter 3.5 (ATCM) of the California Health and Safety Code and which have been publicly noticed to be required by the federal Environmental Protection Agency or the California Air Resources Board, as applicable, may be deemed to be reasonably expected to occur by the Air Pollution Control Officer. If subsequent public notice is given by such agency that such emission reductions will not be required, such emission reductions shall be deemed to be surplus.

(19) **"Total Acute Noncancer Health Hazard Index"** means the sum of the individual substance acute health hazard indexes for a potential maximally exposed individual for all toxic air contaminants identified in the procedures developed by the state Office of Environmental Health Hazard Assessment (OEHHA) and adopted for use with the state SB1731 program as affecting the same target organ system.

(20) **"Total Chronic Noncancer Health Hazard Index"** means the sum of the individual substance chronic health hazard indexes for a potential maximally exposed individual for all toxic air contaminants identified in the procedures developed by the state Office of Environmental Health Hazard Assessment (OEHHA) and adopted for use with the state SB1731 program as affecting the same target organ system.

(21) **"Toxic Air Contaminant (TAC)"** means Hazardous Air Pollutants (HAP's) listed in Section 112 of the Federal Clean Air Act, or air contaminants listed in Tables I (carcinogenic), II (noncarcinogenic - chronic) or III (noncarcinogenic - acute) which have a health standard, approved by the state Office of Environmental Health Hazard Assessment (OEHHA), listed in the CAPCOA Air Toxics Hot Spots Program Risk Assessment Guidelines, October, 1993. The Air Pollution Control Officer may revise Tables I, II, or III upon OEHHA adoption of revised CAPCOA Air Toxics Hot Spots Program Risk Assessment Guidelines or with the concurrence of OEHHA and 30 days after public notice of the proposed changes is published in a newspaper of general circulation.

(22) **"Toxic Air Contaminant Potential to Emit"** means the maximum quantity of toxic air contaminant emissions, including fugitive emissions, that an emission unit is capable of emitting considering emission control equipment. If the project applicant agrees to enforceable hourly, daily and/or annual limitations on the operation of the emission unit, and any associated emission control equipment, as a condition to receiving an Authority to Construct and/or Permit to Operate, such limitations shall be used to establish the toxic air contaminant potential to emit.

(23) **"Toxics Best Available Control Technology (T-BACT)"** means the most stringent emission limitation or the most effective emission control device or control technique which has been achieved in practice for that source or category of source, including changes in process and basic equipment and implementation of pollution prevention measures. If there is an applicable MACT standard, the Air Pollution Control Officer shall evaluate it for equivalency with T-BACT.

(d) STANDARDS

The Air Pollution Control Officer shall deny an Authority to Construct or Permit to Operate for any new, relocated, or modified emission unit increasing emissions of one or more toxic air contaminants listed in Tables I, II, or III unless all of the following requirements are met:

(1) Cancer Risk:

(i) T-BACT Not Applied

The increase in maximum incremental cancer risk at every receptor location is equal to or less than one in one million for any project for which new, relocated, or modified emission units that increase maximum incremental cancer risk are not equipped with T-BACT; and

(ii) T-BACT Applied

Except as provided below, the increase in maximum incremental cancer risk at every receptor location is equal to or less than 10 in one million for any project for which all new, relocated, or modified emission units that increase maximum incremental cancer risk are equipped with T-BACT.

The Air Pollution Control Officer may grant an Authority to Construct and/or Permit to Operate for a new, relocated, or modified emission unit with an increase in maximum incremental cancer risk at any receptor location of greater than 10 in one million but less than 100 in one million provided all of the following conditions are met:

(A) All new, relocated, or modified emission unit(s) associated with the project that increase maximum incremental cancer risk by more than one in one million are equipped with T-BACT.

(B) The Air Pollution Control Officer prepares a report in support of approving an Authority to Construct for the project. The following information shall be included in the report and shall be provided to the Air Pollution Control Officer by the project applicant:

- (1) Identification of the toxic air contaminants that would be emitted.
- (2) Identification of the cancer and noncancer (chronic and acute) health impacts of the toxic air contaminants that would be emitted.
- (3) A discussion of any uncertainty associated with the risk assessment that the applicant believes is noteworthy.
- (4) A discussion of the benefits associated with the new or modified project (any emission unit modified to provide concurrent emission reductions need not be included).
- (5) A discussion of any local, state or federal mandates requiring the new or modified project (any emission unit modified to provide concurrent emission reductions need not be included).
- (6) Identification of project impacts on environmental media other than air.
- (7) Identification of all sensitive receptors impacted by the new or modified project (any emission unit modified to provide concurrent emission reductions need not be included).
- (8) A discussion of how the stationary source will comply with all applicable Maximum Achievable Control Technology and Air Toxic Control Measure requirements at the time of Authority to Construct issuance.
- (9) A demonstration that the cancer burden as a result of the project will not exceed 1.0.
- (10) A risk reduction plan for the project (any emission unit modified to provide concurrent emission reductions need not be included) to include the following information:
 - (i) Identification of the processes and activities causing the toxic air contaminant emissions from the project and what portion of the total project risk is due to each.
 - (ii) Identification of all feasible cancer risk reduction measures in excess of T-BACT for the project type.
 - (iii) An estimate of the risk reduction potential of all feasible risk reduction measures and measures in excess of T-BACT.
 - (iv) An estimate of how long it would take to implement all feasible risk reduction measures and measures in excess of T-BACT.
 - (v) A determination of the technical feasibility and cost-effectiveness to implement all feasible risk reduction measures and measures in excess of T-BACT for the project.

(vi) Identification of feasible risk reduction measures and measures in excess of T-BACT that will be implemented to reduce potential risk from the project, and a detailed schedule for implementation. If the plan shows that these measures are insufficient to reduce the increase in maximum incremental cancer risk to 10 in one million or less, the plan shall identify all potential reductions in the future.

(11) A discussion of how each requirement of Sections (d)(1)(ii), (d)(2), and (d)(3) will be met.

The report required by this Subsection shall be available for public review at the Air Pollution Control District and at a minimum of one public library (to be determined by the Air Pollution Control Officer) near affected persons for the 30 days required by Subsection (d)(1)(ii)(J).

(C) The project has satisfied all other requirements of this rule.

(D) If the project is a modification of an existing stationary source emitting one or more toxic air contaminant(s), T-BACT shall be installed on all permitted emission units at the stationary source that have a maximum incremental cancer risk impact of greater than 10 in one million at any receptor location where the increase in maximum incremental cancer risk as a result of the project is greater than 10 in one million. The Air Pollution Control Officer shall not consider emission units modified to comply with this requirement as part of the project unless specifically requested to do so by the project applicant. Emissions and risk impact data to be used for such impact determinations from non-project emission units shall be from the District program to implement Section 44362 of Division 26 (AB 2588) of the California Health and Safety Code, as such data exists on the date a complete permit application for the project is filed with the District, unless the Air Pollution Control Officer approves the use of other emissions and risk impact data as being more representative.

(E) If the increase in maximum incremental cancer risk as a result of the project is greater than 50 in one million, all available risk reductions shall be provided from permitted emission units having a maximum incremental cancer risk impact of greater than 10 in one million at any receptor location where the maximum incremental cancer risk impact as a result of the project is greater than 10 in one million, or are provided until the resulting increase in maximum incremental cancer risk from the project at all receptor locations within the project impact area is equal to or less than 10 in one million. Emissions and risk impact data to be used for such impact determinations shall be from the District program to implement Section 44362 of Division 26 (AB 2588) of the California Health and Safety Code, as such data exists on the date a complete permit application for the project is filed with the District, unless the Air Pollution Control Officer approves the use of other emissions and risk impact data as being more representative. Emissions reductions which exceed an annualized cost per unit of maximum incremental cancer risk reduced of 1.25 times the annualized cost per unit of maximum incremental cancer risk reduced by T-BACT for the project (not including any emission unit modified to provide concurrent emission reductions) are not required to be provided. All emission reductions provided pursuant to this subsection shall be enforceable, permanent, and quantifiable. The stationary source operator shall demonstrate to the

satisfaction of the Air Pollution Control Officer that the requirements of this Subsection have been met. If emission reductions from permitted units are provided such that the resulting maximum incremental cancer risk from the project at all receptor locations within the project impact area is equal to or less than 10 in one million, the requirements of Subsections (d)(1)(ii)(B), (D), (F), (I), and (J) shall not apply.

(F) The stationary source operator will prepare an annual report on risk reduction methods, including pollution prevention, available for reducing the resulting project (not including any emission unit modified to provide concurrent emission reductions) maximum incremental cancer risk for affected emission units to less than or equal to 10 in one million. Such report shall be prepared in accordance with the requirements of the District's program to implement Division 26, Part 6, Chapter 6 (SB 1731 risk reduction program) of the California Health and Safety Code. The stationary source operator shall implement the approved risk reduction methods within one year from the date of approval by the District.

(G) The stationary source is in compliance with all applicable MACT and ATCM requirements at the time of Authority to Construct issuance.

(H) The cancer burden as a result of the project is equal to or less than 1.0.

(I) The stationary source operator will notify affected persons of the project and, after providing a minimum 30-day notice, hold a public meeting (in the area affected by the project) to discuss the project. Notification shall be in writing and in accordance with District notification procedures to implement Section 44362 of Division 26 (AB 2588 Air Toxics Hot Spots notification program) of the California Health and Safety Code.

(J) After written notice is provided to affected persons, the Air Pollution Control Officer has provided a 30-day period for the public to submit written comments on the following as they relate to the project:

(1) Does the project meet all applicable federal, state and Air Pollution Control District requirements;

(2) Are there any special considerations in the affected community that warrant disapproval of the project;

(3) Are there alternative processes or control technologies that should be considered;

(4) Are the applicable terms and conditions of the proposed permit enforceable by the Air Pollution Control Officer; and,

(5) Was proper public notice provided regarding the project?

Written notice of the proposed project and comment period shall be prepared by the Air Pollution Control Officer and shall include notice that the report required by Subsection (d)(1)(ii)(B) and the Air Pollution Control Officer's analysis of the project are available for public review at the Air Pollution Control District and at a minimum of one specified public library near the affected persons. The notice shall be provided to affected

persons by the stationary source operator at the same time as the notice required by Subsection (d)(1)(ii)(I) is provided to affected persons.

(2) Total Acute Noncancer Health Risk

The increase in the total acute noncancer health hazard index at every receptor location as a result of the project is equal to or less than one unless the Air Pollution Control Officer, after consulting with the state Office of Environmental Health Hazard Assessment, determines that an alternate Total Health Hazard Index is sufficiently health protective.

(3) Total Chronic Noncancer Health Risk

The increase in the total chronic noncancer health hazard index at every receptor location as a result of the project is equal to or less than one unless the Air Pollution Control Officer, after consulting with the state Office of Environmental Health Hazard Assessment, determines that an alternate Total Health Hazard Index is sufficiently health protective.

(e) PROCEDURES

(1) Emission estimates used in estimating health risks shall be based on the project's increase in toxic air contaminant potential to emit, estimated project operating schedule and project operational limitations to be contained in permit conditions. Total chronic noncancer health risk and maximum incremental cancer risk estimates shall be calculated based on the project's increase in annual toxic air contaminant potential to emit. Total acute noncancer health risk estimates shall be based on the project's increase in toxic air contaminant potential to emit for the exposure period of concern.

(2) Emission increases from a modified emission unit shall be calculated as the emission unit's post project potential to emit minus its pre-project potential to emit.

(3) When concurrent emission reductions are provided, the project applicant shall apply for and the Air Pollution Control Officer shall approve or deny, as appropriate, an Authority to Construct and a new or modified Permit to Operate with appropriate conditions for the emission unit(s) providing the concurrent emission reductions.

(4) The Air Pollution Control Officer shall estimate health risk in accordance with procedures developed by the state Office of Environmental Health Hazard Assessment (OEHHHA) and approved for use with Division 26, Part 6, Chapter 6 of the California Health and Safety Code (SB 1731 program).

(5) When calculating the increases in total acute and chronic noncancer health hazard indexes, and increase in maximum incremental cancer risks from a project when concurrent emission reductions are provided, emissions from the new or modified emission units constituting the project shall be consistent with Subsection (e)(1) and from existing units providing concurrent emission reductions shall be based on actual emission levels for the exposure period of concern averaged over the most representative two consecutive years within the five years preceding the receipt date of the application for the project, as determined by the Air Pollution Control Officer.

(6) Health risk estimates shall be performed for toxic air contaminants listed in Tables I, II, III using corresponding state Office of Environmental Health Hazard Assessment (OEHHHA) health risk values in effect on the date action on the application(s) is taken. In the event health risk values are added or revised by OEHHHA after the application

is deemed complete pursuant to Rule 18, the Air Pollution Control Officer shall advise the project applicant in writing as soon as possible thereafter. The project applicant shall make the necessary changes to the health risk estimates to incorporate the new or revised health risk values and submit them to the Air Pollution Control Officer. However, if requested to do so by the project applicant, the Air Pollution Control Officer shall make the necessary changes to the health risk estimates to incorporate the new or revised health risk values.

(7) Toxic air contaminant exposure scenarios used to estimate health risk shall be consistent with land use designations at the time the application is deemed complete, except where the project owner has direct control over discretionary uses.

(8) To the extent possible, the Air Pollution Control Officer shall develop screening risk assessment procedures for common equipment and toxic air contaminants to expedite and standardize review for compliance with Section (d). The procedures shall be maintained in writing and available upon request. The Air Pollution Control Officer shall propose additional exemptions to Section (b) that the the Air Pollution Control Officer deems appropriate, based on the results of these screening procedures.

TABLE I

**Toxic Air Contaminants for Which Potential Carcinogenic Impacts
Should Be Calculated**

Substance	Unit Risk (ug/m ³) ⁻¹	Reference ^c
Acetaldehyde	2.7E-6	OEHHA-ATES/ARB
Acrylamide	1.3E-3	IRIS/OEHHA-RCHAS
Acrylonitrile	2.9E-4	OEHHA-RCHAS
Arsenic	3.3E-3	OEHHA-ATES/ARB
Arsenic compounds (inorganic)	3.3E-3	OEHHA-ATES/ARB
Asbestos	[1.9E-4/100 fibers/m ³] ^a	OEHHA-ATES/ARB
Benzene	2.9E-5	OEHHA-RCHAS
Benzidine (and its salts)	1.4E-1	OEHHA-RCHAS
Beryllium	2.4E-3	IRIS
Bis (chloromethyl) ether	1.3E-2	OEHHA-RCHAS
1,3-Butadiene	1.7E-4	OEHHA-ATES/ARB
Cadmium	4.2E-3	OEHHA-RCHAS
Cadmium compounds	4.2E-3	OEHHA-ATES/ARB
Carbon tetrachloride	4.2E-5	OEHHA-RCHAS, ATES
Chlorinated dibenzo-p-dioxins ^b (as 2, 3, 7, 8 - equivalents)	3.8E+1	OEHHA-RCHAS, ATES/ARB
Chlorinated dibenzofurans ^b (as 2, 3, 7, 8 - equivalents)	3.8E+1	OEHHA-RCHAS, ATES/ARB
Chloroform	5.3E-6	OEHHA-ATES/ARB
Chlorophenols		
Pentachlorophenol	4.6E-6	OEHHA-RCHAS
2, 4, 6 - Trichlorophenol	2.0E-5	OEHHA-RCHAS
Chloroprene	1.3E-7	OEHHA-RCHAS
Chromium (hexavalent)	1.4E-1	OEHHA-RCHAS
Coke oven emissions	6.2E-4	IRIS
1, 2 - Dibromo -3- chloropropane (DBCP)	2.0E-3	OEHHA-RCHAS
p-Dichlorobenzene (1, 4 - Dichlorobenzene)	1.1E-5	OEHHA-RCHAS
3,3' - Dichlorobenzidine	3.4E-4	OEHHA-RCHAS
Di (2 -ethyhexyl) phthalate (DEHP)	2.4E-6	OEHHA-RCHAS
1, 4 - Dioxane	7.7E-6	OEHHA-RCHAS
Dioxins (chlorinated) ^b (see chlorinated dibenzo-p-dioxins)		
Epichlorohydrin	2.3E-5	OEHHA-RCHAS
Ethylene dibromide (1, 2 - Dibromoethane)	7.1E-5	OEHHA-RCHAS, ATES/ARB
Ethylene dichloride (1, 2 - Dichloroethane)	2.0E-5	OEHHA-RCHAS, ATES/ARB
Ethylene oxide	8.8E-5	OEHHA-ATES/ARB
Formaldehyde	6.0E-6	OEHHA-ATES/ARB
Furans (chlorinated) ^b (see chlorinated dibenzofurans)		
Hexachlorobenzene	5.1E-4	OEHHA-RCHAS
Hexachlorocyclohexanes	1.1E-3	OEHHA-RCHAS
Hydrazine	4.9E-3	IRIS

Table I - continued

Substance	Unit Risk ($\mu\text{g}/\text{m}^3$)-1	Reference ^c
Methylene chloride (Dichloromethane)	1.0E-6	OEHHA-ATES/ARB
Nickel and nickel compounds	2.6E-4	OEHHA-ATES/ARB
N-Nitrosodiethylamine	1.0E-2	OEHHA-RCHAS
N-Nitrosodimethylamine	4.6E-3	OEHHA-RCHAS
p-Nitrosodiphenylamine	2.6E-6	OEHHA-RCHAS
N-Nitrosodi-n-butylamine	3.1E-3	OEHHA-RCHAS
N-Nitrosomethylethylamine	6.3E-3	IRIS/OEHHA-RCHAS
N-Nitrosodi-n-propylamine	2.0E-3	OEHHA-RCHAS
N-Nitrosopyrrolidine	6.0E-4	IRIS/OEHHA-RCHAS
PCBs (Polychlorinated biphenyls)	1.4E-3	OEHHA-RCHAS
PAHs (Polycyclic aromatic hydrocarbons) including, but not limited to:		
Benz[a]anthracene	1.7E-3	Ref. 1
Benzo[b]fluoranthene	1.7E-3	Ref. 1
Benzo[k]fluoranthene	1.7E-3	Ref. 1
Benzo[a]pyrene	1.7E-3	Ref. 1
Dibenz[a,h]anthracene	1.7E-3	Ref. 1
Indeno[1,2,3-cd]pyrene	1.7E-3	Ref. 1
Perchloroethylene (Tetrachloroethylene)	5.9E-6	OEHHA-ATES/ARB
Propylene oxide	3.7E-6	IRIS
Trichloroethylene	2.0E-6	OEHHA-ATES/ARB
Urethane	2.9E-4	OEHHA-RCHAS
Vinyl chloride	7.8E-5	OEHHA-ATES/ARB

- a - A conversion factor of 100 fibers/0.003 micrograms can be multiplied by a receptor concentration of asbestos expressed in terms of micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to yield fibers/ m^3 (EPA, 1985. Airborne Asbestos Health Risk Assessment Update). Unless other information necessary to estimate the concentration (fibers/ m^3) of asbestos at receptors of interest is available, the use of the aforementioned conversion factor is an option.
- b - IRIS refers to the U.S. Environmental Protection Agency's Integrated Risk Information System Database. OEHHA-ATES/ARB refers to reports by the California Office of Environmental Health Hazard Assessment, Air Toxicology Epidemiology Section and the California Air Resources Board prepared in the process of identifying the material as a Toxic Air Contaminant. These reports are cited in the CAPCOA Air Toxics Assessment Manual. OEHHA-RCHAS refers to reports prepared by the California Office of Environmental Health Hazard Assessment, Reproductive and Cancer Hazard Assessment Section as part of the implementation of the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).

See References on page 17.

TABLE II
Toxic Air Contaminants for Which Potential Chronic Noncancer Impacts
Should Be Calculated

Substance	Inhalation ^a (ug/m ³) Reference Exposure Level (REL)	Reference ^b
Acetaldehyde	9.0E+0	IRIS
Acrolein	2.0E-2	IRIS
Acrylamide	{7.0E-1}	IRIS
Acrylonitrile	2.0E+0	IRIS
Ammonia	1.0E+2	IRIS
Arsenic ^c	5.0E-1	TLV ¹
Benzene ^c	7.1E+1	TLV
Benzidine (and its salts)	{1.0E+1}	IRIS
Benzyl chloride	1.2E+1	TLV ¹
Beryllium ^d	4.8E-3	TLV ¹
Bromine	1.7E+0	TLV ¹
Bromine compounds		
Hydrogen bromide	2.4E+1	TLV ¹
Bromine pentafluoride	1.7E+0	TLV ¹
Cadmium ^c	{3.5E+0}	IRIS
Carbon tetrachloride ^c	{2.4E+0}	IRIS
Chlorinated dibenzo-p-dioxins ^{c,d} (as 2, 3, 7, 8 - equivalents)	{3.5E-6}	Ref. 1
Chlorinated dibenzofurans ^c (as 2, 3, 7, 8 - equivalents)	{3.5E-6}	Ref. 1
Chlorine	7.1E+0	TLV ¹
Chlorobenzene (monochlorobenzene)	{7.0E+1}	IRIS
Chlorofluorocarbons	{7.0E+2}	IRIS
Chloroform ^c	{3.5E+1}	IRIS
Chlorophenols		
2-Chlorophenol	1.8E+1	IRIS
Pentachlorophenol	2.0E-1	DTSC
Tetrachlorophenols	8.8E+1	DTSC
Chloropicrin	1.7E+0	TLV ¹
Chloroprene	1.0E+0	HEAST
Chromium (hexavalent) ^c	2.0E-3	HEAST
Copper	2.4E+0	TLV ¹
Cresols (o, m, p)	1.8E+2	IRIS
Dibenzodioxins (chlorinated) (see chlorinated dibenzo-p-dioxins)		
Dibenzodioxins (chlorinated) (see chlorinated dibenzofurans)		
1, 2 - Dibromo-3-chloropropane (DBCP)	2.0E-1	IRIS
p - Dichlorobenzene (1, 4 - Dichlorobenzene)	7.0E+2	EPA

Table II - continued

Substance	Inhalation ^a (ug/m ³) Reference Exposure Level (REL)	Reference ^b
1, 4- Dioxane	4.0E+0	Ref. 2
Di(2-ethylhexyl) phthalate	{7.0E+1}	IRIS
Dimethylamine	2.0E+0	IRIS
Epichlorohydrin	3.0E-1	HEAST
Ethyl acrylate	4.8E+1	TLV ¹
Ethyl chloride	1.0E+4	IRIS
Ethylene Dibromide ^c (1, 2 - Dibromoethane)	4.6E+0	OEHHA-PETS
Ethylene Dichloride ^c (1, 2 - Dichloroethane)	9.5E+1	TLV ¹
Ethylene glycol butyl ether	2.0E+1	HEAST
Ethylene glycol monethylether	2.0E+2	IRIS
Ethylene glycol ethyl ether acetate	6.4E+1	TLV ¹
Ethylene glycol methyl ether	2.0E+1	IRIS
Ethylene glycol methyl ether acetate	5.7E+1	TLV ¹
Ethylene oxide ^c	6.0E+2	OEHHA-ATES/Ref. 3
Formaldehyde ^d	3.6E+0	IRIS, TLV ¹
gamma-Hexachlorocyclohexane	{1.0E+0}	IRIS
Gasoline vapors	2.1E+3	TLV ¹
Glutaraldehyde	1.7E+0	TLV ¹
Hexachlorobenzene	{2.8E+0}	IRIS
Hexachlorocyclopentadiene	2.4E-1	IRIS, TLV ¹
Hydrazine	2.4E-1	TLV ¹
Hydrochloric acid	7.0E+0	IRIS
Hydrogen cyanide	{7.0E+1}	IRIS
Hydrogen fluoride	5.9E+0	TLV ¹
Hydrogen sulfide	4.2E+1	CAAQS
Isocyanates		
Toluene-2, 4-diisocyanate	9.5E-2	TLV
Toluene-2, 6-diisocyanate	9.5E-2	TLV
Methyl isocyanate	3.6E-1	TLV ¹
Lead and compounds ^e	1.5E+0	CAAQS
Maleic anhydride	2.4E+0	TLV ¹
Manganese and compounds	4.0E-1	IRIS
Mercury and compounds (inorganic)	3.0E-1	HEAST
Methanol	6.2E+2	TLV
Methyl bromide	6.0E+0	HEAST
Methyl chloroform (1, 1, 1 - TCA)	{3.2E+2}	IRIS
Methylene chloride ^c	3.0E+3	HEAST
4, 4' - Methylene dianiline (and its dichloride)	1.9E+0	TLV ¹
Methyl mercury	{1.0E+0}	IRIS
Methyl methacrylate	9.8E+2	TLV ¹
Mineral fibers (< 1% free silica)	2.4E+1	TLV ¹
Naphthalene	{1.4E+1}	HEAST
Nickel and nickel compounds ^c	2.4E-1	TLV ¹
Nitrobenzene	{1.7E+0}	IRIS

Table II - continued

Substance	Inhalation ^a (ug/m ³) Reference Exposure Level (REL)	Reference ^b
Nitrogen dioxide	4.7E+2	CAAQS
2 - Nitropropane	2.0E+1	IRIS
Ozone	1.8E+2	CAAQS
Perchloroethylene ^c (Tetrachloroethylene)	{3.5E+1}	IRIS
Phenol	4.5E+1	TLV
Phosphine	{1.0E+1}	IRIS
Phosphorous (white)	{7.0E-2}	IRIS
Phthalic anhydride	{7.0E+3}	IRIS
PCBs (Polychlorinated biphenyls)	1.2E+0	TLV ¹
Propylene oxide	3.0E+1	IRIS
Selenium compounds	5.0E-1	TLV ¹
Sodium hydroxide	4.8E+0	TLV ¹
Styrene	{7.0E+2}	IRIS
Sulfates	2.5E+1	CAAQS
Sulfur dioxide	6.6E+2	CAAQS
Toluene	2.0E+2	DTSC
Trichloroethylene ^c	6.4E+2	TLV
Vinyl chloride ^c	2.6E+1	CAAQS
Vinylidene chloride	{3.2E+1}	IRIS
Xylenes	3.0E+2	HEAST
Zinc compounds	3.5E+1	SPHEM

a - Values in { } have been converted from oral acceptable exposure levels (mg/kg/day) by assuming a 70kg person breathes 20m³ per day and equal absorption occurs by the inhalation and oral routes.

b - **IRIS**, "Reference Doses from EPA's Integrated Risk Information System";
OEHHA-ATES, level was calculated by the Office of Environmental Health Hazard Assessment staff using a 100-fold safety factor with a NOEL from the literature;
OEHHA-PETS refers to the Office of Environmental Health Hazard Assessment, Air Toxicology and Epidemiology Section;
SPHEM, the Superfund Public Health Evaluation Manual, 1986, pp. 149-156;
CAAQS, California Ambient Air Quality Standard;
EPA, letter from EPA's Pollutant Assessment Branch listing chemicals with verified inhalation RfDs as of July 31, 1989;
HEAST, EPA Health Effects Assessment Summary Tables, Fourth Quarter FY-1991;
DTSC, Department of Toxic Substances Control Applied Action Levels;
TLV¹ indicates that the number is derived from an ACGIH TLV value which has been divided by an uncertainty factor of 420. [4.2 (to extrapolate from a 40-hour work week to a 168-hour full week) times 10 (to extrapolate from healthy workers to sensitives) times 10 (since adverse health effects are often seen at the TLVs)]

c - Declared a Toxic Air Contaminant by ARB due to carcinogenicity.

d - Considered a carcinogen by EPA.

e - **NOTE: Report both the 30-day and the annual average concentrations for lead.**

See References on Page 17.

TABLE III

**Toxic Air Contaminants for Which Potential Acute Noncancer Impacts
Should Be Calculated**

Chemical	Reference Exposure Level (REL) (ug/m ³)	Toxic Endpoint	Reference
Ammonia	2.1E+3	Respiratory irritation	1
Acrolein	2.5E+0	Respiratory irritation	2
Arsine	1.3E+2	Blood	1
Benzyl chloride	5.0E+1	Respiratory irritation	2
Carbon tetrachloride	1.9E+2	CNS	1
Chlorine	2.3E+1	Respiratory irritation	1
Copper and compounds	1.0E+1	Respiratory irritation	2
1, 4 - Dioxane	2.0E+1	Eye irritation	3
Ethylene glycol methyl ether	3.2E+2	Reproductive/developmental	3
Ethylene glycol ethyl ether	3.7E+2	Reproductive/developmental	3
Ethylene glycol monoethyl ether acetate	1.6E+3	Reproductive/developmental	3
Ethylene glycol monobutyl ether	1.5E+3	Blood	3
Formaldehyde	3.7E+2	Respiratory irritation	1
Hydrochloric acid	3.0E+3	Respiratory irritation	1
Hydrogen cyanide	3.3E+3	CNS	1
Hydrogen fluoride	5.8E+2	Respiratory irritation	1
Hydrogen sulfide	4.2E+1	Respiratory irritation	4
Maleic anhydride	1.0E+1	Respiratory irritation	2
Mercury (inorganic)	3.0E+1	CNS, Kidney, Liver	3
Methyl chloroform	1.9E+5	CNS	3
Methylene chloride	3.5E+3	CNS	1
Nickel compounds	1.0E+0	Immunotoxicity	3
Nitrogen dioxide	4.7E+2	Respiratory irritation	4
Ozone	1.8E+2	Respiratory irritation	4
Perchloroethylene (Tetrachloroethylene)	6.8E+3	CNS	1
Phosgene	1.2E+1	Respiratory irritation	1
Propylene oxide	1.0E+3	CNS	3
Selenium	2.0E+0	Respiratory irritation	2
Sodium hydroxide	2.0E+1	Respiratory irritation	2
Sulfates	2.5E+1	Respiratory irritation	5
Sulfur Dioxide	6.6E+2	Respiratory irritation	4
Xylenes	4.4E+3	Respiratory irritation	2

References to Table I

1. EPA, 1984. Health Effects Document for Benzo[a]pyrene, EPA/540/1-86/022, September, 1984. NTIS PB86-134335.

References to Table II

1. EPA, 1985. "Health Assessment Document for Polychlorinated Dibenzo-p-Dioxins," EPA 600/8-84-014.
2. Snellings M. W.; Zelenak, J. P.; and Weil, C. S., 1982. "Effects on Reproduction in Fischer 344 Rats Exposed to Ethylene Oxides by Inhalation for One Generation," Toxicology and Applied Pharmacology 63:382-388.

References to Table III

1. These values are equal to the ambient concentration limits (ACLs) for 60-minute exposures developed by Lewis and Alexeeff "Quantitative Risk Assessment of Noncancer Health Effects for Acute Exposure to Air Pollutants". Presented at the 1989 Annual Meeting of the Air and Waste Management Association.
2. These numbers were derived by dividing the Threshold Limit Value by 100. The TLVs in these cases were considered to be human LOAELs by Office of Environmental Health Hazard Assessment, Air Toxicology and Epidemiology Section staff. Reference: American Conference of Governmental Industrial Hygienists, Documentation of the Threshold Limit Values and Biological Exposure Indices, 1986, Cincinnati.
3. California ambient air quality standard (one-hour averaging time). California Code of Regulations, Title 17, section 70200.
4. California ambient air quality standard (24-hour averaging time). California Code of Regulations, Title 17, section 70200.