

MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT

**RULE 1000 - PERMIT GUIDELINES AND REQUIREMENTS FOR SOURCES
EMITTING TOXIC AIR CONTAMINANTS**

(Conceptual Adoption 2/19/86; Final Adoption 3/19/86; Revised 6/17/98; and 10/19/05)

CONTENTS

PART 1 GENERAL	2
1.1 Purpose	2
1.2 Applicability	2
1.3 Exemptions	3
1.4 Effective Date	3
1.5 References and Related Rules	3
PART 2 DEFINITIONS	3
2.1 Carcinogenic Toxic Air Contaminant (CTAC)	3
2.2 Carcinogenesis	3
2.3 Federal §112(g) Source	3
2.4 Modifications	4
2.5 Reconstructed Source	4
2.6 Reference Concentration (RfC)	4
2.7 Reference Exposure Level (REL)	4
2.8 Risk Assessment	5
2.9 Toxic Air Contaminant (TAC)	5
2.10 Unit Risk Value (URV)	5
PART 3 REQUIREMENTS AND STANDARDS	6
3.1 New or Modified Sources of Toxic Air Contaminants (TACs)	6
3.2 New Or Modified Sources of Carcinogenic Toxic Air Contaminants (CTACs)	6
PART 4 ADMINISTRATIVE REQUIREMENTS	7
4.1 Permit Evaluations	7
4.2 Permit Conditions	7
4.3 Emissions Determinations	7
4.4 Potency and Toxicity Determinations	7
4.5 Exposure Assessment	7
4.6 Other Assessment Methods	8
4.7 Air Quality Models	8
4.8 Publication and Public Comment	8
4.9 Public Inspection	9
4.10 Violations	9
4.11 Appeal	9

1.1 Purpose

The purpose of this Rule is:

- 1.1.1 To prevent the emission into the atmosphere within the District of toxic air contaminants (referenced hereinafter as TACs), which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health; and,
- 1.1.2 To prevent occurrences which may endanger the health and welfare of the public within the District and to assure that no person will suffer material impairment of health or functional capacity; and,
- 1.1.3 To comply with the federal Clean Air Act §112(g) Toxic New Source Review requirements; and,
- 1.1.4 To protect the public's health and welfare while allowing, where permitted, the continued operation of sources which do or may emit toxic air contaminants (TACs); and,
- 1.1.5 Not to limit in any way the provisions, extent, intent, interpretation, or enforcement of District Rule 402 (Nuisances).

1.2 Applicability

- 1.2.1 This Rule applies to any new or modified stationary sources for which an Authority to Construct or a Permit to Operate is required pursuant to District Regulation II - Permits, and which has the potential to emit into the atmosphere any toxic air contaminant (TAC).
- 1.2.2 Whenever a potential toxic air contaminant (TAC) may be subject to more than one District Rule, or to more than one requirement in this rule, the requirement resulting in the least hazard to the public, as determined by the Air Pollution Control Officer, shall apply.

1.3 Exemptions

The provisions of this Rule shall not apply to any Source Category that has an existing State Air Toxics Control Measure (ATCM).

1.4 Effective Date

This Rule as most recently revised is effective on October 19, 2005.

1.5 References and Related Rules

- 1.5.1 The requirements of this Rule arise from Board Policy regarding the provisions of California Health & Safety Code §41700 (*public nuisance*) and federal Clean Air Act §112(g). Regulation II (Permits), Rule 200 (Permits Required), Rule 402 (Nuisances), and Regulation VI (Procedure Before the Hearing Board) are referred to by this Rule.

PART 2 DEFINITIONS

2.1 Carcinogenic Toxic Air Contaminant (CTAC)

Any compound with a Unit Risk Value established by the California State Office of Environmental Health Hazard Assessment (OEHHA).

2.2 Carcinogenesis

- 2.2.1 The self-replicating process in which a change induced in a cell is transmitted to successive generations of cells descended from it, including, specifically, cellular changes leading to the formation of carcinomas (malignant tumors of epithelial cells), sarcomas (malignant tumors of connective tissue), lymphomas, leukemias (cancers of the lymphatic and blood systems).

- 2.2.2 Carcinogenesis shall be quantified using "unit risk values".

2.3 Federal §112(g) Source

- 2.3.1 Any new source with the potential to emit 10 tons per year of any one Hazardous Air Pollutant (HAP) or the potential to emit 25 tons per year of any combination of HAPs as defined in Section 2.9.1 herein.
- 2.3.2 A reconstructed source with the potential to emit 10 tons per year of any one Hazardous Air Pollutant (HAP) or the potential to emit 25 tons per year of any combination of HAPs as defined in Section 2.9.1 herein.
- 2.3.3 Any modification to an existing source where the modification increases the potential to emit of the source by 10 tons per year of any one HAP or increases the potential to emit of the source by 25 tons per year of any combination of HAPs as defined in Section 2.9.1 herein.

2.4 Modifications

Any alteration or process change which may result in a net increase in the potential to emit any toxic air contaminants (TACs) or carcinogenic toxic air contaminants (CTACs).

2.5 Reconstructed Source

Any source or stationary source undergoing physical modification where reconstruction equals or exceeds 50% of the fixed capital cost of a comparable entirely new source or stationary source. Fixed capital costs means the capital needed to provide and install all the depreciable components.

2.6 Reference Concentration (RfC)

An EPA estimate of the daily exposure of the human population to a toxic air contaminant concentration, through inhalation, that is likely to be without risk of deleterious effects during a lifetime.

The latest RfC established by EPA shall be used unless otherwise specified by the Air Pollution Control Officer.

2.7 Reference Exposure Level (REL)

An Office of Environmental Health Hazard Assessment (OEHHA) indicator of potential adverse health effects. An REL is a concentration level of a toxic air contaminant (TAC) at or below which no adverse health effects are anticipated.

The latest RELs established by OEHHA shall be used unless otherwise specified by the Air Pollution Control Officer.

2.8 Risk Assessment

The prediction of adverse health affects, including carcinogenesis, to the human individual assumed to be at the point of maximum ground level impact of a source emitting specified potential TACs through the use of: hazard identification; dose response assessment; exposure assessment and risk characterization.

- 2.8.1 In those instances where the operation or potential operation of a facility emitting TACs will also lessen population exposure elsewhere in the District, assessment of risk shall include those data.

2.9 Toxic Air Contaminant (TAC)

Any substance:

- 2.9.1 Listed as a Hazardous Air Pollutant (HAP) in §112(b)(1) of the Clean Air Act ; or
- 2.9.2 Listed in the Air Toxics “Hot Spots” Program and for which an REL has been established by OEHHA; or
- 2.9.3 Listed in EPA’s Integrated Risk Information System (IRIS) database with an established RfC.

2.10 Unit Risk Value (URV)

The quantitative estimate of carcinogenic potency expressed as the chance of contracting cancer from a 70-year lifetime exposure to a concentration of 1 Fg/m³ of a given substance. The unit risk value (URV) represents the probability of cancer cases, not deaths.

The latest URVs established by the California Office of Environmental Health Hazard Assessment (OEHHA) shall be used unless otherwise specified by the Air Pollution Control Officer.

PART 3 REQUIREMENTS AND STANDARDS

3.1 New or Modified Sources of Toxic Air Contaminants (TACs)

3.1.1 The emissions impact of any toxic air contaminant (TAC) from a new or modified source, calculated on a worst case basis as measured or calculated beyond the facility property line, shall not exceed:

3.1.1.1 The REL for the TAC; or

3.1.1.2 The RfC if an REL does not exist for the TAC.

3.2 New Or Modified Sources of Carcinogenic Toxic Air Contaminants (CTACs)

New or modified sources emitting, or having the potential to emit, CTACs, shall meet the following requirements.

3.2.1 Estimated emissions from the subject facility shall not be anticipated to cause a net risk in excess of one cancer incidence per 1×10^5 population as estimated in a risk assessment conducted pursuant to Section 2.8.

3.2.2 The emissions impact of any carcinogenic toxic air contaminant (CTAC) , calculated on a worst case basis beyond the facility property line, shall not exceed:

3.2.2.1 The REL for the CTAC; or

3.2.2.2 The RfC if an REL does not exist for the CTAC.

3.2.3 A Risk Assessment, as defined in Section 2.8, shall be conducted and submitted to the Air Pollution Control Officer as part of the Authority to Construct permit application required pursuant to Rule 200 (Permits Required), verifying compliance with Subsection 3.2.1 above unless exempted by the Air Pollution Control Officer. When more than one potential CTAC is emitted, the risk assessment shall be performed based on the additive impact of the CTACs.

PART 4 ADMINISTRATIVE REQUIREMENTS

4.1 Permit Evaluations

In addition to the assumptions specified in this Part, the evaluation of a permit application performed pursuant to District Rule 200 (Permits Required) for a source emitting or having the potential to emit TACs, shall utilize realistically conservative assumptions in those instances where data is either lacking or insufficient, in recognition that the adverse consequences of particular carcinogens and/or specific TACs into the atmosphere are as yet largely undefined.

4.2 Permit Conditions

All significant parameters of the application shall be a condition of the issuance of the permit. These include all data upon which the risk assessment is performed. Any significant change of these conditions may cause a reevaluation of the permit or be considered a violation of these rules and regulations.

4.3 Emissions Determinations

4.3.1 The determination of TAC emissions and related ambient concentrations shall be performed on a worst case basis unless better data is provided and approved by the Air Pollution Control Officer.

4.3.2 Where reliable data to the contrary is not available, it shall be assumed that the TAC in question is introduced into the atmosphere in unaltered form continuously, at maximum concentration known to exist at the source. Where reaction intermediates may occur or process events are indicated that are reasonably documented, those will be taken into account. The source evaluation required by this rule shall be performed and impacts summed for all release points of the facility, for all reaction intermediates, and for all modes of environmental entrainment both primary and secondary.

4.4 Potency and Toxicity Determinations

The REL and the RfC shall be the measures of the relative toxicity of a pollutant.

4.5 Exposure Assessment

4.5.1 The assessment of risk shall be calculated at the point of maximum ground level impact off the facility property at which point it shall be assumed human exposure occurs.

4.5.2 The human exposure in question is assumed to occur at the point of maximum ground level impact for 70 continuous years with regular or continuous exposure to the concentrations for that entire period.

4.5.3 Inside air is equivalent to outside air.

4.5.4 For the purposes of this Rule, risk shall be estimated by assuming that the effective dose of the new or modified source is independent of the background concentration(s) of CTACs and TACs.

4.6 Other Assessment Methods

Where the Air Pollution Control Officer determines that reasonable information or lack of information indicates the public's interest may be better protected by doing so:

4.6.1 The Air Pollution Control Officer may require for any given TAC source and upon good cause shown, a variation in any step(s) or procedure(s) of the TAC assessment methods required by this rule; and/or

4.6.2 The Air Pollution Control Officer may require other additional assessment methods deemed appropriate to assure that an adequate evaluation on the subject TAC emissions occurs.

4.7 Air Quality Models

All air quality models used for the purposes of this Rule shall be consistent with the requirements provided in the most recent revision of the United States Environmental Protection Agency "Guidelines on Air Quality Models" (40 Code of Federal Regulation Part 51, Appendix W) unless the District finds that such a model is inappropriate for use. However, the District, on a case-by-case basis, may approve alternative models.

4.8 Publication and Public Comment

Prior to issuing an Authority to Construct or a Permit to Operate for any federal §112(g) source, the District shall publish in at least one newspaper of general circulation in the District a notice stating the preliminary decision of the District, noting how pertinent information can be obtained, and inviting written public comment for a 30-day period following the date of publication.

4.9 Public Inspection

The District shall make available for public inspection at the District's office the information submitted by the applicant and the District's analysis no later than the date the public notice is published, pursuant to Section 4.8 herein. No later than the noticed date, all such information, including the proposed permit, shall be transmitted to the United States Environmental Protection Agency, and any other interested public agency or party requesting it.

4.10 Violations

Each and every violation of any condition of a permit issued in accordance with this regulation is a separate and distinct violation of the District Rules and Regulations.

4.11 Appeal

- 4.11.1 Any final determination, approval or denial made by the Air Pollution Control Officer in the course of implementing the requirements of this rule, including any permit conditions which may be imposed pursuant hereto, is appealable to the District Hearing Board in accordance with the procedures set forth in District Regulation VI - Procedure Before The Hearing Board.

* * * * *