

Bay Area Air Quality Management District

Draft Staff Report
April 2003

Appendix E

Proposed BAAQMD Air Toxics NSR
Program

Health Risk Screening Analysis (HRSA)
Guidelines

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

**Proposed BAAQMD Air Toxics NSR Program
Health Risk Screening Analysis (HRSA) Guidelines**

1. INTRODUCTION

This document describes the Bay Area Air Quality Management District's guidelines for conducting health risk screening analyses. Any health risk screening analysis (HRSA) that is required pursuant to Regulation 2 Permits, Rule 1 General Requirements or Rule 5 New Source Review of Toxic Air Contaminants shall be conducted in accordance with these guidelines.

In accordance with Regulation 2-5-402, these guidelines will conform to the Health Risk Assessment Guidelines adopted by Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA) for use in the Air Toxics Hot Spots Program, whenever possible, and will periodically be updated to clarify procedures, amend health affects data, or incorporate other improvements.

2. PROCEDURES

The procedures described below constitute the Regulation 2-5-603 Health Risk Screening Analysis Procedures. Except as described in Sections 2.1 below, any HRSA shall be completed by following the procedures described in the OEHHA Health Risk Assessment Guidelines for the Air Toxics Hot Spots Program, which are identified below.

The OEHHA Health Risk Assessment Guidelines contain several sections which identify (a) the overall methodology, (b) the exposure assessment assumptions and procedures, and (c) the health affects data (cancer potency factors, chronic reference exposure levels, and acute reference exposure levels).

A summary of OEHHA's Health Risk Assessment Guidelines and an index of the relevant documents are located at:

http://www.oehha.ca.gov/air/hot_spots/index.html

OEHHA's risk assessment methodology is located at:

http://www.oehha.ca.gov/air/risk_assess/index.html

The exposure assessment and stochastic technical support document (Part IV of OEHHA's Risk Assessment Guidelines) is located at:

http://www.oehha.ca.gov/air/exposure_assess/index.html

The cancer potency factors for carcinogenic compounds (Part II of OEHHA's Risk Assessment Guidelines) are located at:

http://www.oehha.ca.gov/air/cancer_guide/hasca2.html

The chronic reference exposure levels (RELs), which are Part III of OEHHA's Risk Assessment Guideline, are located at:

http://www.oehha.ca.gov/air/chronic_rels/index.html

The acute reference exposure levels (RELs), which are Part I of OEHHA's Risk Assessment Guideline, are located at:

http://www.oehha.ca.gov/air/acute_rels/index.html

2.1 Clarifications of Exposure Assessment Procedures

Note: It is anticipated that a statewide Interim Risk Management Policy for Inhalation-based Cancer Risk will be adopted by the California Air Resources Board and OEHHA prior to adoption of Regulation 2, Rule 5 and these Health Risk Screening Analysis Guidelines. The District believes that the HRSA methodology used in the Air Toxics NSR Program should conform with State guidelines, and intends on adopting any interim exposure assessment recommendations made by ARB and OEHHA.

2.2 Stochastic Risk Assessment

For a stochastic, multipathway risk assessment, the potential cancer risk should be reported for the full distribution of exposure from all exposure pathways included in the risk assessment. For risk management decisions, the potential cancer risk from a stochastic, multipathway risk assessment should be based on the 95th percentile cancer risk.

References

- 1 “Air Toxics “Hot Spots” Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, Public Review Draft”, OEHHA, June 2002
- 2 “Air Toxics “Hot Spots” Program Risk Assessment Guidelines, Part IV. Technical Support Document for Exposure Assessment and Stochastic Analysis”, OEHHA, October 27, 2000
- 3 “Air Toxics “Hot Spots” Program Risk Assessment Guidelines, Part II, Technical Support Document for Describing Available Cancer Potency Factors”, OEHHA, updated December 19, 2002.
- 4 “Air Toxics “Hot Spots” Program Risk Assessment Guidelines, Part III, Technical Support Document for the Determination of Noncancer Chronic Reference Exposure Levels”, OEHHA, February 23, 2000.
- 5 “Air Toxics “Hot Spots” Program Risk Assessment Guidelines, Part I, Technical Support Document for the Determination of Acute Reference Exposure Levels for Airborne Toxicants”, OEHHA, April 5, 1999.