

---

# OEHHA

## Office of Environmental Health Hazard Assessment

[Home](#) ➤ [Air](#) ➤ [Hot Spots](#) ➤ **2015 Guidance Manual for Preparation of Health Risk Assessments**

### Air Toxicology and Epidemiology

---

#### **ADOPTION OF AIR TOXICS HOT SPOTS PROGRAM GUIDANCE MANUAL FOR PREPARATION OF HEALTH RISK ASSESSMENTS** **[03/06/15]**

In accordance with [Health and Safety Code, Section 44300 et seq.](#) (The Air Toxics Hot Spots Information and Assessment Act, AB 2588, Connelly as amended by SB 1731, Calderon), the Director of the Office of Environmental Health Hazard Assessment (OEHHA) hereby adopts The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.

OEHHA is releasing the final version of the document, Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments (Guidance Manual), February 2015, by posting on our Web site. This Guidance Manual has been developed by OEHHA, in conjunction with the Air Resources Board (ARB), for use in implementing the Air Toxics Hot Spots Program (Health and Safety Code Section 44360). OEHHA is required to develop guidelines for conducting health risk assessments under the Air Toxics Hot Spots Program (Health and Safety Code Section 44360 (b) (2)). OEHHA earlier developed three Technical Support Documents (TSDs) in response to this statutory requirement, which provided the scientific basis for values used in assessing risk from exposure to facility emissions. The three TSDs describe non-cancer risk assessment (derivation of acute, 8-hour and chronic reference exposure levels), derivation of cancer potency factors, and exposure assessment methodology including stochastic risk assessment. These TSDs underwent public and peer review, were approved by the State's Scientific Review Panel on Toxic Air Contaminants, and adopted by OEHHA for use in the Air Toxics Hot Spots program. The Guidance Manual combines the critical information from the three TSDs into a manual for the preparation of health risk assessments.

A computer program, the Hot Spots Analysis and Reporting Program (HARP) has been developed by ARB as a tool to implement the risk assessments as outlined in this guidance manual. The HARP program is available from ARB <http://www.arb.ca.gov/toxics/harp/harp.htm>

#### **2015 Hot Spots Guidance Manual**

- [Download the guidance document](#) (excluding appendices) (6.4Mb)
- [Download the entire appendices](#) (18Mb)
- [Download appendices A-F](#) (2.3Mb)
  - Appendix A: Air Toxics Hot Spots Program List of Substances
  - Appendix B: Regulations and Legislation
  - Appendix C: Asbestos Conversion Factors & Cancer Potency Factor
  - Appendix D: Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Engines
  - Appendix E: Toxicity Equivalency Factors for Polychlorinated Dibenzo-p-Dioxins, Dibenzofurans and Polychlorinated Biphenyls
  - Appendix F: Overview of the Lead Risk Assessment Procedures
- [Download appendices G- J](#) (1.8Mb)
  - Appendix G: PAH Potency Factors and Selection of Potency Equivalency Factors (PEF) for PAHs based on Benzo(a)pyrene Potency

- Appendix H: Recommendations for Estimating Concentrations of Longer Averaging Periods from the Maximum One-Hour Concentration for Screening Purposes
- Appendix I: Calculation Examples for Estimating Potential Health Impacts
- Appendix J: Glossary of Acronyms and Definition of Selected Terms
- [Download appendix K:](#) (1.7Mb) HRA Forms and Maps Used With Air Dispersion Modeling
- [Download appendices L-M](#) (2.5Mb)
  - Appendix L: OEHHA/ARB Approved Health Values for Use in Hot Spot Facility Risk Assessments
  - Appendix M: How to Post-Process Offsite Worker Concentrations using the Hourly Raw Results from AERMOD
- [Download Appendix N:](#) (2.3Mb) Sensitivity Study of the Worker Adjustment Factor using AERMOD

### Technical Support Documents

- [Download the Air Toxics Hot Spots Program Technical Support Document for the Derivation of Noncancer Reference Exposure Levels, 2008](#)
- [Download the Air Toxics Hot Spots Program Technical Support Document for Cancer Potency Factors, 2009](#)
- [Download the Air Toxics Hot Spots Program Technical Support Document for Exposure Assessment and Stochastic Analysis, 2012](#)

#### Flex Your Power Web site



Energy efficiency and conservation information. Find incentives/rebates, technical assistance, retailers, product guides, case studies and more.

#### AMBER ALERT: Save a Child



AMBER ALERT empowers law enforcement, the media and the public to combat abduction by sending out immediate information.



OEHHA is one of six agencies under the umbrella of the [California Environmental Protection Agency](#) (Cal/EPA).

[Air Resources Board](#) | [Cal Recycle](#) | [Department of Pesticide Regulation](#) | [Department of Toxic Substances Control](#)  
[Office of Environmental Health Hazard Assessment](#) | [State Water Resources Control Board](#)

[Conditions of Use/Privacy Policy](#)

Copyright © 2007 OEHHA