Appendix A

Proposed Regulation Order
Airborne Toxic Control Measure
for Emissions of Chlorinated Toxic Air Contaminants
from Automotive Maintenance and Repair Activities

PROPOSED REGULATION ORDER
AIRBORNE TOXIC CONTROL MEASURE
FOR EMISSIONS OF CHLORINATED TOXIC AIR CONTAMINANTS
FROM AUTOMOTIVE MAINTENANCE AND REPAIR ACTIVITIES

Adopt new section 93111, title 17, California Code of Regulations, to read as follows:

17 CCR, section 93111. Chlorinated Toxic Air Contaminants Airborne Toxic Control Measure--Automotive Maintenance and Repair Activities.

(a) **Applicability**

(1) Except as provided in subdivision (b), this section applies to any person who sells, supplies, offers for sale, or manufactures automotive consumer products for use in automotive maintenance or repair activities in California.

(2) This section also applies to the owner or operator of any automotive maintenance facility or automotive repair facility that uses automotive consumer products in California.

(b) **Exemptions**

(1) This section does not apply to any automotive consumer product manufactured in California for shipment and use outside of California.

(2) This section does not apply to a manufacturer or distributor who sells, supplies or offers for sale in California an automotive consumer product that does not comply with the standards specified in subdivision (d) if the manufacturer or distributor can demonstrate to the satisfaction of the Executive Officer both of the following: (A) the automotive consumer product is intended for shipment and use outside of California, and (B) the manufacturer or distributor has taken reasonable prudent precautions to assure that the automotive consumer product is not sold, offered for sale, or distributed in California. This subdivision (2) does not apply to manufacturers or distributors of automotive consumer products if the products are sold, supplied, or offered for sale by any person to retail outlets in California.

(c) **Definitions**. For the purposes of this section, the following definitions apply:

(1) "Aerosol Product" means a pressurized spray system that dispenses product ingredients by means of a propellant or mechanically induced force. Any user-pressurized system that uses compressed air as a propellant is considered to be an "Aerosol Product". "Aerosol Product" does not include pump sprayers.

(2) “ASTM” means the American Society for Testing and Materials.

(3) “Automotive Consumer Product” for the purposes of this section, means any of the following chemically formulated aerosol products or liquid products used in automotive maintenance or repair activities: (A) brake cleaners, (B) carburetor or fuel-injection air intake cleaners, (C) engine degreasers, and (D) general purpose degreasers intended for use in automotive maintenance or repair activities.

(4) “Automotive Maintenance Facility or Automotive Repair Facility (Facility)” means any establishment at which a person repairs, rebuilds, reconditions, services, or maintains in any way, motor vehicles. “Facility” includes entities required to be registered by the California Department of Consumer Affairs, Bureau of Automotive Repair, and entities that service or repair a fleet of ten or more motor vehicles. “Facility” does not include private residences or entities that are involved only in motor vehicle body work or painting.

(5) “Automotive Maintenance or Repair Activities” means any service, repair, restoration, or modification activity to a motor vehicle in which cleaning or degreasing products could be used including, but not limited to, brake work, engine work, machining operations, and general degreasing of engines, motor vehicles, parts, or tools.

(6) “Brake Cleaner” means a cleaning product designed, labeled, promoted or advertised (expressed or implied) to remove oil, grease, brake fluid, brake pad material or dirt from motor vehicle brake mechanisms and parts.

(7) “Carburetor or Fuel-Injection Air Intake Cleaner” means a product designed, labeled, promoted or advertised (expressed or implied) to remove fuel deposits, dirt, or other contaminants from a carburetor, choke, throttle body of a fuel-injection system, or associated linkages. “Carburetor or fuel-injection air intake cleaner” does not include products designed exclusively to be introduced directly into the fuel lines or fuel storage tank prior to introduction into the carburetor or fuel injectors.

(8) “CAS Registry Number” is a unique accession number assigned by the Chemical Abstracts Service, a division of the American Chemical Society.

(9) “Chlorinated Toxic Air Contaminant” for the purposes of this section, means methylene chloride, perchloroethylene, or trichloroethylene.

(10) “Consumer” means any person who seeks, purchases, or acquires any automotive consumer product for use in automotive maintenance and repair activities. Persons acquiring an automotive consumer product for resale are not “consumers” for that product.

(11) “Distributor” means any person to whom an automotive consumer product is sold or supplied for the purposes of resale or distribution in commerce, except that manufacturers, retailers, and consumers are not distributors.

(12) “Engine Degreaser” means a cleaning product designed, labeled, promoted or advertised (expressed or implied) to remove grease, grime, oil or other contaminants from the external surfaces of engines and other mechanical parts.

(13) “Executive Officer” means the Executive Officer of the California Air Resources Board, or his or her delegate.

(14) “General Purpose Cleaner” means a product designed for general all-purpose cleaning, in contrast to cleaning products designed to clean specific substrates in certain situations. “General Purpose Cleaner” includes products designed for general floor cleaning, kitchen or counter top cleaning, and cleaners designed to be used on a variety of hard surfaces.

(15) “General Purpose Degreaser” means any product designed, labeled, promoted or advertised (expressed or implied) to remove or dissolve grease, grime, oil and other oil-based contaminants from a variety of motor vehicle substrates or surfaces or miscellaneous metallic parts. “General Purpose Degreaser” does not include “Engine Degreaser”or “General Purpose Cleaner”.

(16) “Liquid” means a substance or mixture of substances which is capable of a visually detectable flow as determined under ASTM D-4359-90 which is incorporated by reference. “Liquid” does not include powders or other materials that are composed entirely of solid particles.

(17) “Liquid Product” means any product that is packaged and sold as a bulk liquid including liquid delivered by pump sprayers.

(18) “Manufacturer” means any person who imports, manufactures, assembles, produces, packages, repackages, or relabels an automotive consumer product.

(19) “Methylene Chloride” (CAS Registry Number 75-09-2) means the compound with the chemical formula 'CH_2Cl_2', also known by the name ‘dichloromethane’, which has been identified by the Air Resources Board and listed as a toxic air contaminant in section 93000, and which is a hazardous air pollutant designated as a toxic air contaminant in section 93001.

(20) “Motor Vehicle” means a self-propelled device by which any person or property may be propelled, moved, or drawn upon a highway, excepting a device moved exclusively by human power or used exclusively upon stationary rails or tracks. "Motor vehicle" does not include a self-propelled wheelchair, invalid tricycle, or motorized quadricycle when

operated by a person who, by reason of physical disability, is otherwise unable to move about as a pedestrian.

(21) “Owner or Operator” means a person who is the owner or the operator of an automotive maintenance facility or an automotive repair facility.

(22) “Perchloroethylene (Perc)” (CAS Registry Number 127-18-4) means the compound with the chemical formula 'C_2Cl_4', also known by the name ‘tetrachloroethylene’, which has been identified by the Air Resources Board and listed as a toxic air contaminant in section 93000, and which is a hazardous air pollutant designated as a toxic air contaminant in section 93001.

(23) “Person” means “person” as defined in Health and Safety Code section 39047.

(24) “Pump Sprayer” means a packaging system in which the product ingredients within the container are not under pressure and in which the product is expelled only while a pumping action is applied to a button, trigger or other actuator.

(25) “Retailer” means any person who sells, supplies, or offers for sale automotive consumer products directly to consumers.

(26) “Retail Outlet” means any establishment at which automotive consumer products are sold, supplied, or offered for sale directly to consumers.

(27) “Trichloroethylene” (CAS Registry Number 79-01-6) means the compound with the chemical formula 'C_2HCl_3', also known by the name ‘TCE’, which has been identified by the Air Resources Board and listed as a toxic air contaminant in section 93000, and which is a hazardous air pollutant designated as a toxic air contaminant in section 93001.

(d) **Standards for Automotive Consumer Products**

(1) Except as provided in subdivision (b), subdivision (e) and subdivision (g), after the effective dates specified in the following Table of Standards no person shall sell, supply, offer for sale, or manufacture for sale in California any automotive consumer product that, at the time of sale or manufacture, contains methylene chloride, perchloroethylene or trichloroethylene.

Table of Standards

Product Category	Effective Date
Brake Cleaner	December 31, 2002
Carburetor or Fuel-injection Air Intake Cleaners	December 31, 2002
Engine Degreaser	December 31, 2002
General Purpose Degreaser	December 31, 2002

(2) For the purposes of subdivision (d)(1), a product "contains methylene chloride, perchloroethylene or trichloroethylene" if the product contains 1.0 percent or more by weight (exclusive of the container or packaging) of any one of the compounds methylene chloride, perchloroethylene, or trichloroethylene as determined by the test method specified in subdivision (h).

(3) No owner or operator of an automotive maintenance facility or automotive repair facility shall use an automotive consumer product prohibited under subdivision (d)(1) after June 30, 2005.

(e) **Sell-through of products**

(1) Notwithstanding the provisions of subdivisions (d)(1) and (d)(2), an automotive consumer product manufactured prior to the effective date specified for that product category in the Table of Standards may be sold, supplied, or offered for sale for up to 18 months after the specified effective date.

(2) This subdivision (e) does not apply to any automotive consumer product if that product does not display, on the product container or package, the date on which the product was manufactured or a code indicating such date.

(f) **Administrative Requirements - Code-Dating**

(1) Each manufacturer of an automotive consumer product subject to this section shall clearly display on each automotive consumer product container or package, the day, month, and year on which the product was manufactured, or a code indicating the day, month, and year of manufacture. This date or code-date shall be displayed on each automotive consumer product container or package manufactured on or after the date no later than twelve months prior to the effective date of the applicable standard specified in subsection (d). No person shall erase, alter, deface or otherwise remove or make illegible

any date or code-date from any regulated product container or package without the express authorization of the manufacturer.

(2) If a manufacturer uses a code indicating the date of manufacture for any automotive consumer product subject to this section, the manufacturer shall file an explanation of the code with the Executive Officer of the ARB no later than twelve months prior to the effective date of the applicable standard specified in subdivision (d).

(g) **Variances**

(1) Applications for variances. Any person who cannot comply with the requirements set forth in subdivision (d) because of extraordinary reasons beyond the person's reasonable control may apply in writing to the Executive Officer for a variance. The variance application shall set forth:

(A) the specific grounds upon which the variance is sought;

(B) the proposed date(s) by which compliance with the provisions of subdivision (d) will be achieved; and

(C) a compliance report reasonably detailing the method(s) by which compliance will be achieved.

(2) Notices and public hearings for variances. Upon receipt of a variance application containing the information required in subdivision (g)(1), the Executive Officer will hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements in subdivision (d) is necessary and will be permitted. The Executive Officer will initiate a hearing no later than 75 days after receipt of a variance application. The Executive Officer will send notice of the time and place of the hearing to the applicant by certified mail not less than 30 days prior to the hearing. The Executive Officer will submit notice of the hearing for publication in the California Regulatory Notice Register, and not less than 30 days prior to the hearing, the Executive Officer will send a notice to every person who requests such notice. The notice will state that the parties may, but need not, be represented by counsel at the hearing. At least 30 days prior to the hearing, the Executive Officer will make the variance application available to the public for inspection. The Executive Officer will allow interested members of the public a reasonable opportunity to testify at the hearing and will consider their testimony.

(3) Treatment of confidential information. Information submitted to the Executive Officer by a variance applicant may be claimed as confidential, and such information will be handled in accordance with the procedures specified in sections 91000-91022. The Executive Officer may consider such confidential information in reaching a decision on a variance application.

(4) Necessary findings for granting variances. The Executive Officer will not grant a variance unless the Executive Officer finds that:

(A) because of reasons beyond the reasonable control of the applicant, requiring compliance with subdivision (d) would result in extraordinary economic hardship to the applicant; and

(B) the public interest in mitigating the extraordinary hardship to the applicant by issuing the variance outweighs the public interest in avoiding any increased emissions of toxic air contaminants that would result from issuing the variance; and

(C) the compliance report proposed by the applicant can reasonably be implemented and will achieve compliance as expeditiously as possible.

(5) Variance orders. Any variance order will specify a final compliance date by which the requirements of subdivision (d) will be achieved. Any variance order will contain a condition that specifies increments of progress necessary to assure timely compliance, and such other conditions that the Executive Officer, in consideration of the testimony received at the hearing, finds necessary to carry out the purposes of Division 26 of the Health and Safety Code.

(6) Situations in which variances will cease to be effective. A variance will cease to be effective upon failure of the party to whom the variance was granted to comply with any term or condition of the variance.

(7) Modification and revocation of variances. Upon the application of any person, the Executive Officer may review, and for good cause, modify or revoke a variance from requirements of subdivision (d) after holding a public hearing in accordance with the provisions of subdivision (g)(2).

(h) **Test Methods**

(1) Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products, adopted September 25, 1997, and as last amended on November 16, 1999, is incorporated herein by reference. Sections 3.5 and 3.7 will be used to perform the testing to determine compliance with the requirements of this section.

(2) References to "VOC" in Method 310 mean "chlorinated toxic air contaminants" when Method 310 is used to determine compliance with this section.

(3) Alternative methods which are shown to accurately determine the concentration of methylene chloride, perchloroethylene, or trichloroethylene in a subject product or its emissions may be used upon written approval of the Executive Officer.

Authority cited: Sections 39600, 39601, 39650, 39655, 39656, 39658, 39659, 39665, and 39666, Health and Safety Code.

Reference: Sections 39002, 39600, 39650, 39655, 39656, 39658, 39659, 39665, 39666, and 40000, Health and Safety Code.

Appendix B

Surveys

Survey 1. Brake Cleaner and Perc-Containing Automotive Products Survey

California Environmental Protection Agency

Air Resources Board

INSTRUCTIONS FOR COMPLETING THE BRAKE CLEANER AND PERC-CONTAINING AUTOMOTIVE PRODUCTS SURVEY

GENERAL INSTRUCTIONS

- Please type or print legibly in ink when filling out the survey form.
- Please review the instructions and the survey form prior to filling out the form.
- We suggest that you make extra copies of the form.
- If you have any questions on the survey or the information we have requested, please contact Mark Williams of the Air Resources Board (ARB) staff at (916) 327-5633.
- In order to get accurate data from this survey, we would appreciate it if you would consult your actual sales records for determining California sales.
- In filling out the survey form if you encounter any questions which do not apply in your situation, please enter "N/A" in the appropriate blanks.
- If you wish to clarify the information supplied by your company or would like to make additional comments, please use Section V to enter your comments. In clarifying the information your company has supplied, please refer to the appropriate table, column, and row or product name.

SECTION I. COMPANY INFORMATION

Company Name:	Enter the entire company name.
Division Name:	If the respondent to the survey is representing a division of the company please enter the division name. If the respondent to the survey is representing several divisions being reported under one company, please enter the additional division names in Section IV: Other Information at the end of the survey.
Contact Person:	Enter the name of the person to be contacted by the ARB if clarifications are needed.
Address:	Enter the mailing address of the company or division responsible for completing the survey.
Manufacturer/ Distributor:	Check the corresponding box to indicate whether you are a manufacturer or a distributor or both.
Phone/Fax Number:	Enter the phone and fax numbers of the contact person.
Confidential Information:	If you would like us to treat this information and data in a confidential manner, please check the box at the bottom of Section I.
E-mail Address:	Enter the E-mail address of the contact person, if available.

SECTION II. BRAKE CLEANER PRODUCT INFORMATION

Column	Instructions

- 1, 8: List all of the products that your company either makes, formulates, fills for another company, or distributes. After having listed all the applicable products in column 1 of Section II., copy the product names in column 8 of the continuation section (Section II.) at the foot of the page. Be sure to list them in the same order.

- 2: For those products which you either fill for another company, or distribute, please list the manufacturer's name in Section V, Other Comments.

- 3: Enter the product form as either (A)erosol, (L)iquid, (P)ump spray, (G)el, (S)olid, or (O)ther. If the product falls into the "Other" category, please specify the form in Section V, Other Comments.

- 4: What is the weight (ounces) of the product in the container or dispenser? If the product comes in more than one size, list the different sizes as separate entries. It is permissible to report the product size in fluid ounces or gallons, but we request that you enter either the product density in grams per milliliter (g/ml) or its specific gravity (see Section III.).

- 5-7: What is the number of units of product sold or distributed in California (column 5)? If there are multiple sizes, list the number of units sold or distributed for each size. We are also interested in who the end users are. What percentage of the units are sold for industrial use in shops which do automotive brake repair and servicing (column 6)? What percentage of the units are sold through a retail store for individual or home use (column 7)?

- 9: Write in the percentage of Perc by weight contained in the product. If this is a non-chlorinated product, please list the main ingredients in Section V, Other Comments.

- 10: Does the product meet the Volatile Organic Compound (VOC) limit of 50 percent content by weight as required by Article 2 of the Consumer Products Regulation? (Title 17, California Code of Regulations, Section 94509)

- 11-13: These columns deal with product reformulation. In column 11, please enter whether your company intends to reformulate the product by simply answering "yes" or "no". In column 12 we would like you to enter an estimated date when the product will be reformulated, if applicable. This date would be when the product is estimated to be sold as a commercial product. If the product is to be reformulated, please enter whether the Perc content will increase as a result of the reformulation along with an estimate of what the new Perc content (percent weight) will be (column 13).

SECTION III. LIQUID BRAKE CLEANERS

Column	Instructions

- 1: Enter any products from Section II. which come in liquid form. These products would be those where "L" is entered in column 3 of Section II.

- 2: What is the volume (fluid ounces or gallons) of the product in the container or dispenser? If the product comes in more than one size, list the different sizes as separate entries. Please note that we are asking for the amount of product measured by volume, and not by weight as was requested in column 4 of Section II.

- 3: Please enter either the product density in grams per milliliter (g/ml) or its specific gravity.

- 4: After product purchase for industrial or home use, does the product need to be diluted prior to its use or application?

- 5,6: If the producted is diluted, what is the recommended amount of product (column 5) for the given amount of diluent (column 6) per the container instructions? Please specify whether the amounts are given in terms of volume or weight and the units.

- 7: If the product is diluted, what is the recommended diluent per the instructions?

SECTION IV. OTHER AUTOMOTIVE PRODUCTS CONTAINING PERC

Column	Instructions

- 1: This column lists other products which could contain Perc.

- 2: Please answer "Yes" or "No" in the blank by each product category whether your company manufactures, formulates, fills, or distributes that type of product. For those products which you either fill for another company, or distribute, please list the manufacturer's name in Section V, Other Comments.

- 3: If you answered yes in column 2 to any of the product categories, please answer whether the product(s) contain Perc?

- 4-6: These columns deal with product reformulation. In column 4, please enter whether your company intends to reformulate the product by simply answering "yes" or "no". In column 5 we would like you to enter an estimated date when the product will be reformulated, if applicable. This date would be when the product is estimated to be sold as a commercial product. If the product is to be reformulated, please enter whether the Perc content will increase as a result of the reformulation along with an estimate of what the new Perc content (percent weight) will be (column 6).

SECTION V. OTHER COMMENTS

If you wish to clarify the information you have supplied or make additional miscellaneous comments on the survey, please enter the comments in this box. In clarifying the information your company has supplied, please refer to the appropriate table, column and row or product name.

California Environmental Protection Agency

Air Resources Board

BRAKE CLEANER AND PERC-CONTAINING AUTOMOTIVE PRODUCTS SURVEY

(Please use extra sheets if necessary)

SECTION I. COMPANY INFORMATION

COMPANY NAME		ADDRESS		
DIVISION NAME				
CONTACT PERSON		CITY	STATE	ZIP
MANUFACTURER? ☐	DISTRIBUTOR? ☐	PHONE ( )	FAX ( )	
CHECK THE BOX IF THIS INFORMATION IS **CONFIDENTIAL**? ☐		E-MAIL ADDRESS		

SECTION II. BRAKE CLEANER PRODUCT INFORMATION (Please see attached instructions)

COLUMN 1	2	3	4	5	6	7
PRODUCT NAME	OWN PRODUCT LINE?	FORM	NET SIZE (Weight in ounces)	UNITS SOLD IN CALIFORNIA	INSTITUTIONAL/ INDUSTRIAL SALES (%)	RETAIL/ HOUSEHOLD SALES (%)

SECTION II. BRAKE CLEANER PRODUCT INFORMATION (Continued)

COLUMN 8	9	10	11	12	13
PRODUCT NAME	PERC CONTENT (Weight percent)	MEETS 50% VOC LIMIT?	WILL PRODUCT BE REFORMULATED	ESTIMATED REFORMULATION DATE	WILL PERC CONTENT INCREASE WITH REFORMULATION?

SECTION III. BRAKE CLEANER PRODUCT INFORMATION (For liquids only)

COLUMN 1	2	3	4	5	6	7
PRODUCT NAME	NET SIZE (Fluid oz. or gallons)	DENSITY(g/ml)/ SPECIFIC GRAVITY	IS THE PRODUCT DILUTED?	AMOUNT OF PRODUCT	AMOUNT OF DILUENT	TYPE OF DILUENT

SECTION IV. OTHER AUTOMOTIVE PRODUCTS CONTAINING PERC

COLUMN 1	2	3	4	5	6
PRODUCT CATEGORY	DO YOU MANUFACTURE A PRODUCT IN THIS CATEGORY?	DOES IT CONTAIN PERC?	WILL THE PRODUCT BE REFORMULATED?	ESTIMATED REFORMULATION DATE	WILL PERC CONTENT INCREASE WITH REFORMULATION?
Brake Anti-squeal compounds					
Bug and tar removers					
Carburetor and choke cleaners					
Engine Degreasers					
Lubricants (excluding engine oil)					
Penetrants					
Undercoatings					
Upholstery fabric cleaners					

SECTION V. OTHER COMMENTS

CONFIDENTIAL INFORMATION SUBMITTAL FORM

If you wish to designate any information contained in your survey data as **CONFIDENTIAL INFORMATION**, please provide the data requested below and return it with your completed survey form.

In accordance with Title 17, California Code of Regulations (CCR), Section 91000 to 91022, and the California Public Records Act (Government Code Section 6250 et seq.), the information that a company provides to the Air Resources Board (ARB) may be released (1) to the public upon request, except trade secrets which are not emissions data or other information which is exempt from disclosure or the disclosure of which is prohibited by law, and (2) to the Federal Environmental Protection Agency (EPA), which protects trade secrets as provided in Section 114(c) of the Clean Air Act and amendments thereto (42 USC 7401 et seq.) and in federal regulation, and (3) to other public agencies provided that those agencies preserve the protections afforded information which is identified as a trade secret, or otherwise exempt from disclosure by law (Section 39660(e)).

Trade secrets as defined in Government Code Section 6254.7 are not public records and therefore will not be released to the public. However, the California Public Records Act provides that air pollution emission data are always public records, even if the data comes within the definition of trade secrets. On the other hand, the information used to calculate information is a trade secret.

If any company believes that any of the information it may provide is a trade secret or otherwise exempt from disclosure under any other provision of law, **it must identify the confidential information as such at the time of submission to the ARB and must provide the name address, and telephone number of the individual to be consulted**, if the ARB receives a request for disclosure or seeks to disclose the data claimed to be confidential. The ARB may ask the company to provide documentation of its claim of trade secret or exemption at a later date. Data identified as confidential will not be disclosed unless the ARB determines, in accordance with the above referenced regulations, that the data do not qualify for a legal exemption from disclosure. The regulations establish substantial safeguards before any such disclosure.

In accordance with the provisions of Title 17, California Code of Regulations, Section 91000 to 91022, and the California Public Records Act (Government Code Sections 6250 et seq.),

Company Name: ____ declares that all the information submitted in response to the California Air Resources Board's information request on the brake cleaner and perc-containing automotive products survey is confidential "trade secret" information, and request that it be protected as such from public disclosure. All inquiries pertaining to the confidentiality of this information should be directed to the following person:

Date:____________________		Mailing Address:
______________________________	(Signature)	______________________________
______________________________	(Printed Name)	______________________________
______________________________	(Title)	______________________________
______________________________	(Telephone Number)	______________________________

Survey 2. Brake/Automotive Repair Shop Survey

California Environmental Protection Agency

Air Resources Board

BRAKE/AUTOMOTIVE REPAIR SHOP SURVEY

Date:_____

Facility:_____

Address: _____

_____

Cross Street:_____

Contact:_____ Title:_____

Phone #:_____

SHOP DESCRIPTION

The approximate dimensions of the entire shop area, include units (m. or ft.). Interior dimensions include storage and other areas not partitioned off as separate rooms. Exterior dimensions include all connecting structures.:

Interior Height_____, Width_____, Length_____

Exterior Height_____, Width_____, Length_____

UTM from 1 corner:_____

Type(s) of ventilation used:

Wall fan ☐ Ceiling or exhaust fan ☐ open doors ☐ other_____

If fan is used give fan specifications (i.e. CFM, or horsepower & size)_____

Nominal Dimensions (include units)

Number and ave. size of servicing bays:_____ L_____ W_____

Number of normally open doors:_____ H_____ W_____

Number of normally open windows:_____ H_____ W_____

Number of normally open servicing bay doors:_____ H_____ W_____

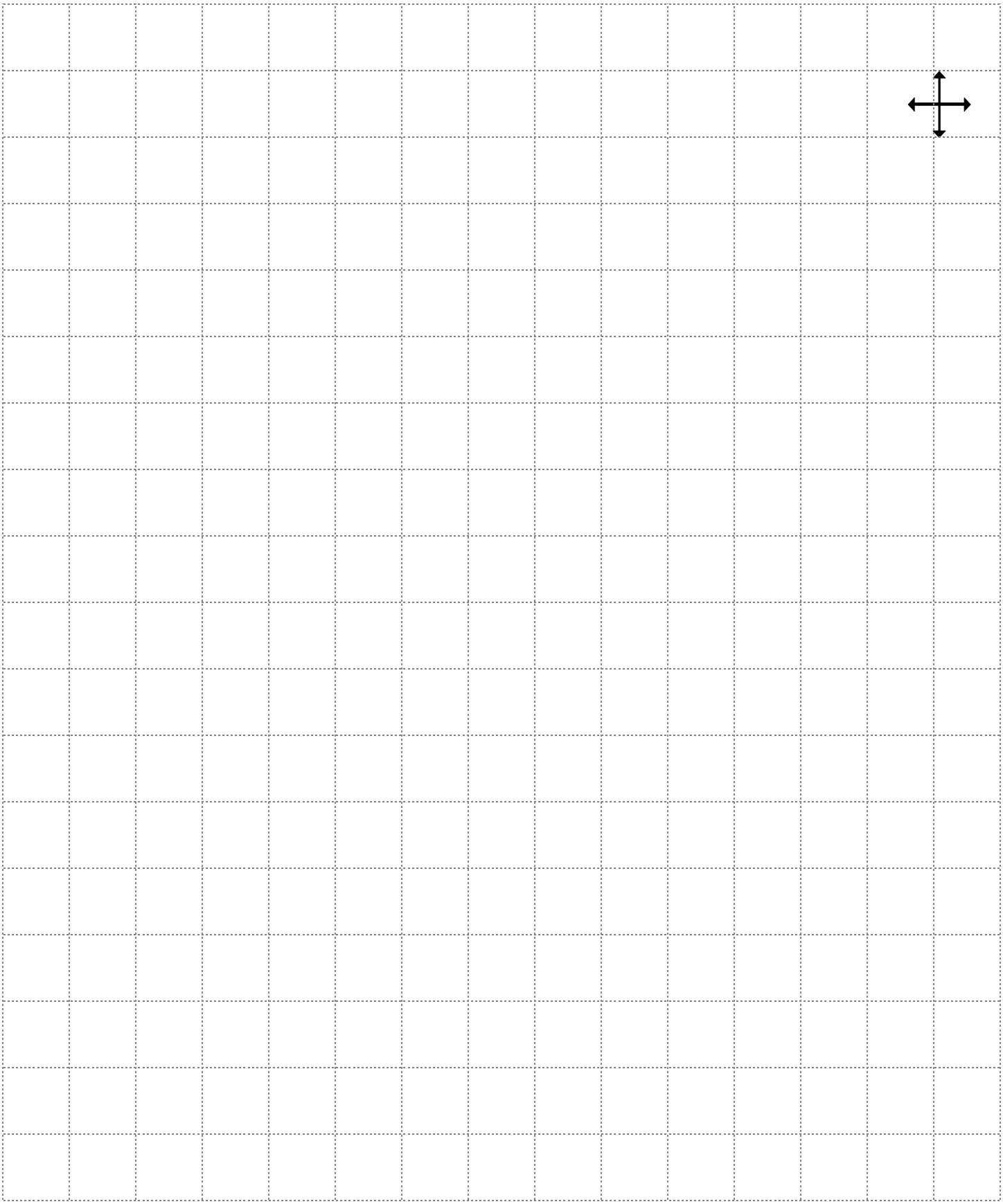
Nearest offsite receptor distance (incl. units):

Business_____ UTM _____ Direction from facility (in degrees) _____

Residential_____UTM _____ Direction from facility (in degrees) _____

Distance from the facility building to the facility fence line_____

Provide a sketch of the facility, any adjoining structures (for example: if facility is attached to a strip mall or similar), orientation of the nearest receptor, and indicate the direction North)**:**



SHOP DESCRIPTION (continued)

Normal business operating schedule (e.g. M-F 7am-7pm, Sat-Sun 10am-4pm):

_____

How many bays are used for brake services?_____

Are ventilation practices different between mild and inclement weather? Explain:

_____

_____

OPERATION DESCRIPTION

Number of employees:_____

Average number of employees in service area each day:_____

Number of people performing brake services each day:_____

Number of automotive services performed per week:_____

Number of automobiles requiring brake work per week:_____

Number of axles serviced per week:_____

Amount of time to perform a brake job (1 or 2 axles) _____

Are there Proposition 65 warnings posted?_____

Comments:_____

_____

PRODUCT INFORMATION

Number of different brake cleaning product(s) used:_____

Has the shop used any other type of brake cleaner? If so, what type of product was used? What was the outcome? Is there a preference of the type of product used?_____

_____

_____

If an aqueous type product is used, please list shop's reasons for using product (i.e. product cheaper, etc.)

_____

_____

_____

If an aqueous product is used, has drying time been a concern in the brake repairs? (Explain)

_____

_____

If an aerosol product is used, list the reasons or situations why the product is used instead of an aqueous product_____

_____

Are the brakes wiped with rags after using the aerosol spray?_____

If yes, how are the rags stored and disposed of?_____

If used, what is the approximate fate of all Perc usage (e.g. 50% air, 40% reclaimed for proper disposal, 9% sewer, 1% storm drain)_____

PRODUCT INFORMATION (continued)

Ask for a unit of the product(s) used to inspect the label; copy the following information:

1. Product name:_____

Manufacturer:_____

Address:_____ Phone #:_____

e-mail:_____

Part Number:_____ UPC Code: _____

size:_____ (fl oz., wt oz, gal.) Code date:_____

Product form: Aerosol ☐ Liquid ☐ Pump Spray ☐ Other_____

Active ingredients:_____

_____

% Perc:_____

Usage (application) information:_____

_____

_____

_____

_____

_____

_____

_____

Does the product require dilution ____ (Y / N)

Dilute _____ _____ of product into _____ _____ of
(amount product) **(units)** **(amount diluent)** **(units)**

_____ Apply with _____
(diluent used) **(application equipment used, wipe, spray bottle, etc.)**

Number of product units used per week by facility_____

Volume of diluted product used in a week_____

Number of cans aerosol used per brake job _____

Is the product used for any other application other than brakes? If so what other applications is it used for (i.e. general degreasing, etc.):_____

How often and how much of the product used for other purposes:_____

_____ (give time frame and amount used)

Did you see a demonstration of the product in use?_____

PRODUCT INFORMATION (continued)

Ask for a unit of the product(s) used to inspect the label; copy the following information:

2. Product name:_____

Manufacturer:_____

Address:_____ Phone #:_____

e-mail:_____

Part Number:_____ UPC Code: _____

size:_____ (fl oz., wt oz, gal.) Code date:_____

Product form: Aerosol ☐ Liquid ☐ Pump Spray ☐ Other_____

Active ingredients:_____

_____

% Perc:_____

Usage (application) information:_____

_____

_____

_____

_____

_____

_____

_____

Does the product require dilution ____ (Y / N)

Dilute _____ _____ of product into _____ _____ of
(amount product) **(units)** **(amount diluent)** **(units)**

_____ Apply with _____
(diluent used) **(application equipment used, wipe, spray bottle, etc.)**

Number of product units used per week by facility_____

Volume of diluted product used in a week_____

Number of cans aerosol used per brake job _____

Is the product used for any other application other than brakes? If so what other applications is it used for (i.e. general degreasing, etc.):_____

How often and how much of the product used for other purposes:_____

_____ (give time frame and amount used)

Did you see a demonstration of the product in use?_____

PRODUCT INFORMATION (continued)

Ask for a unit of the product(s) used to inspect the label; copy the following information:

3. Product name:_____

Manufacturer:_____

Address:_____ Phone #:_____

e-mail:_____

Part Number:_____ UPC Code: _____

size:_____ (fl oz., wt oz, gal.) Code date:_____

Product form: Aerosol ☐ Liquid ☐ Pump Spray ☐ Other_____

Active ingredients:_____

_____

% Perc:_____

Usage (application) information:_____

_____

_____

_____

_____

_____

_____

_____

Does the product require dilution ____ (Y / N)

Dilute _____ _____ of product into _____ _____ of
(amount product) **(units)** **(amount diluent)** **(units)**

_____ Apply with _____
(diluent used) **(application equipment used, wipe, spray bottle, etc.)**

Number of product units used per week by facility_____

Volume of diluted product used in a week_____

Number of cans aerosol used per brake job _____

Is the product used for any other application other than brakes? If so what other applications is it used for (i.e. general degreasing, etc.):_____

How often and how much of the product used for other purposes:_____

_____ (give time frame and amount used)

Did you see a demonstration of the product in use?_____

General comments/observations:

Survey 3. Automotive Service Facility Questionaire

California Environmental Protection Agency
Air Resources Board

AUTOMOTIVE SERVICE FACILITY QUESTIONNAIRE

(Please type or print legibly in ink)

I. LABEL AND CONTACT INFORMATION

The peel-off label on your envelope is designed to speed questionnaire processing. Please cross out any errors in your facility name or address, print the correct information on the label, and affix it to Section I. where indicated. If the label has been damaged, you may print or type the information requested. Additionally, please enter your phone number and a contact person in the space provided.

Affix the ARB label provided on the envelope here.

FACILITY NAME:	
ADDRESS:	
CITY:	ZIP:

CONTACT PERSON:
PHONE ( )

II. SOLVENT USAGE INFORMATION

Do you use brake cleaners, engine degreasers, carburetor cleaners, or multi-purpose lubricants in your facility?

NO **STOP**; Ensure Section I. is complete and return the survey package to us in the enclosed envelope.

YES **CONTINUE**; Proceed to Section III.

III. GENERAL PRODUCT INFORMATION

Indicate the average number of brake jobs your facility performs each week and the amount of product used for each brake job. For aerosols, usage will be in cans per job; for bulk liquids, usage will be in ounces per job. Also indicate whether you use a water-based brake washer for brake parts cleaning (e.g., Safety-Kleen, Ammco, Bird Bath, etc.) The sections below ask more specific questions about the products you use.

Approximately how many brake jobs does your facility perform each week? _____
If aerosol cans are used, approximately how many cans are used per brake job? _____
If bulk liquid brake cleaners are used, approximately how many ounces are used per brake job? _____

Do you use a water-based brake washer? Yes No

IV. AEROSOL BRAKE CLEANER INFORMATION

- For each aerosol brake cleaning product your facility uses, list the product name, manufacturer (for example: Berryman, CRC, Radiator Specialty Corp., etc.) and product size (in ounces) as listed on the product label.
- Enter the 12 digit number located at the bottom of the bar code (the numbers circled in the example to the right). Be sure to include the single digits to the left and right of the bars. ***If the product label does not have a bar code, please enter the part number, if available.***

Bar Code Example:

IV. AEROSOL BRAKE CLEANER INFORMATION (continued)

- Estimate how many cans of product the facility uses each week. ***Your estimate should include all product used, even if the product is used for other purposes such as general purpose cleaning.***

PRODUCT NAME	MANUFACTURER	PRODUCT SIZE (oz.)	12 DIGIT BAR CODE NUMBER OR PART NUMBER	NUMBER OF CANS USED PER WEEK

V. BULK LIQUID BRAKE CLEANER INFORMATION

Complete this section for bulk liquid brake cleaners. Fill out the information the same way as for Section IV., but in column 3 - PRODUCT SIZE, list the volume of the product in **gallons** and in column 5 - AMOUNT USED PER MONTH, list the average amount of product used in **gallons** per month.

PRODUCT NAME	MANUFACTURER	PRODUCT SIZE (gal.)	12 DIGIT BAR CODE NUMBER OR PART NUMBER	AMOUNT USED PER MONTH

VI. AEROSOL AUTOMOTIVE PRODUCTS

Complete this section for engine degreasers, carburetor cleaners, and multi-purpose lubricants used by your facility and not listed in Section IV. Fill out the information the same way as for Section IV. Please make additional copies of the survey form if more space is needed.

PRODUCT NAME	MANUFACTURER	PRODUCT SIZE (oz.)	12 DIGIT BAR CODE NUMBER OR PART NUMBER	NUMBER OF CANS USED PER WEEK

Do you wish to be notified of upcoming workshops/meetings? **YES** **NO**

Please mail your questionnaire back to us in the enclosed business reply envelope by January 27, 1998. If you have any questions on the questionnaire or the information we have requested, please contact Mark Williams of the Air Resources Board staff at (916) 327-5633.

(12/97)

Survey 4. Vehicle Maintenance and Repair Facility Flammability Survey

California Environmental Protection Agency

Air Resources Board

VEHICLE MAINTENANCE AND REPAIR FACILITY FLAMMABILITY SURVEY

Date:_____

Facility:_____

Address: _____

_____

Contact:_____ Title:_____

Phone #:_____

GENERAL INFORMATION

Do any of the employees smoke while performing vehicle maintenance or repair? Yes ☐ No ☐

Types of ignition sources (flame or heat) within facility:

Welding ☐ Torch ☐ Propane space heater ☐ Lit cigarettes ☐ AC Leak sensor w/ flame ☐

Fan-forced portable space heater ☐ other_____

Specific ventilation practices associated with use of ignition (flame or heat) sources:
Wall fan ☐ Ceiling or exhaust fan ☐ open doors ☐ other_____

If an ignition source is present (flame or heat), what is the general proximity of the source to where automotive consumer products are being used? (feet, next bay, etc.) _____

_____

Number of different automotive cleaning product(s) used:_____

Have there been any accidents or incidents related to the use of flammable products?
Yes ☐ No ☐
If yes, state number and explain incident(s):_____

_____

_____

For the different type of automotive products used in the facility, has product flammability ever been a factor in choosing one product over another? Yes ☐ No ☐
If yes, why?:_____

_____

_____

PRODUCT INFORMATION

Ask for a unit of the product(s) used to inspect the label; copy the following information:

1. Product Type:

☐ Brake Cleaner ☐ Carburetor Cleaner ☐ Engine Degreaser ☐ General Degreaser ☐ Other:_____

Product name:_____

Manufacturer:_____

Part # or UPC code:_____

Product form: Aerosol ☐ Liquid ☐ Pump Spray ☐ Other_____

Listed on label as Flammable? Yes ☐ No ☐

Chlorinated? Yes ☐ No ☐

Notes:_____

_____

2. Product Type:

☐ Brake Cleaner ☐ Carburetor Cleaner ☐ Engine Degreaser ☐ General Degreaser ☐ Other:_____

Product name:_____

Manufacturer:_____

Part # or UPC code:_____

Product form: Aerosol ☐ Liquid ☐ Pump Spray ☐ Other_____

Listed on label as Flammable? Yes ☐ No ☐

Chlorinated? Yes ☐ No ☐

Notes:_____

_____

3. Product Type:

☐ Brake Cleaner ☐ Carburetor Cleaner ☐ Engine Degreaser ☐ General Degreaser ☐ Other:_____

Product name:_____

Manufacturer:_____

Part # or UPC code:_____

Product form: Aerosol ☐ Liquid ☐ Pump Spray ☐ Other_____

Listed on label as Flammable? Yes ☐ No ☐

Chlorinated? Yes ☐ No ☐

Notes:_____

_____

PRODUCT INFORMATION (continued)

4. Product Type:

☐ Brake Cleaner ☐ Carburetor Cleaner ☐ Engine Degreaser ☐ General Degreaser

☐ Other:_____
Product name:_____
Manufacturer:_____
Part # or UPC code:_____
Product form: Aerosol ☐ Liquid ☐ Pump Spray ☐ Other_____
Listed on label as Flammable? Yes ☐ No ☐
Chlorinated? Yes ☐ No ☐
Notes:_____
_____

5. Product Type:

☐ Brake Cleaner ☐ Carburetor Cleaner ☐ Engine Degreaser ☐ General Degreaser
☐ Other:_____
Product name:_____
Manufacturer:_____
Part # or UPC code:_____
Product form: Aerosol ☐ Liquid ☐ Pump Spray ☐ Other_____
Listed on label as Flammable? Yes ☐ No ☐
Chlorinated? Yes ☐ No ☐
Notes:_____
_____

General comments/observations:_____

Appendix C

Methodology for Estimating the Potential Health Impacts from Automotive Maintenance and Repair Facilities

Appendix C. Methodology for Estimating the Potential Health Impacts from Automotive Maintenance and Repair Facilities

This appendix steps through an example calculation to illustrate the procedures that ARB staff used to estimate the potential health impacts from Perchloroethylene (Perc), Methylene Chloride (MeCl), and Trichloroethylene (TCE) usage in aerosol brake cleaning products at automotive maintenance and repair (AMR) facilities. In order to estimate the impacts, product usage information, physical descriptions of the source, and emission release parameters were collected during site visits. This information is used to estimate the facility's Perc, MeCl, and TCE emission rates and to model the facility's emissions using the SCREEN3 and ISCST3 air dispersion models. The modeling results are then used to determine the potential health impacts. The information in this appendix should not be used to compare in any way the SCREEN3 and ISCST3 air dispersion models or their results.

ARB staff used the Brake/Automotive Repair Shop survey form in Appendix B to collect the necessary information to model each facility's potential health impacts. The more pertinent information collected includes the facility's building dimensions, distance to the nearest residential and business receptors, the operating schedule of the service area, and information about the products and their use in brake cleaning. This example calculation uses data collected from one of the site visits and focuses only on Perc emissions to illustrate the methodology.

A. Chronic and Acute Calculations

The calculation begins with the determination of the facility's Perc usage and Perc emission rate, steps through the modeling inputs, and concludes with the calculation of potential health impacts. For our example, we have selected a minimum receptor distance of 32 meters from the center of the volume source (the building) to define a near-source location. For ease of illustration, we assume that both the maximum exposed individual resident (MEIR) and the maximum exposed individual (offsite) worker (MEIW) occur at this location.

1. Determining a Facility's Perc Usage

In order to determine a facility's Perc usage, the following information is needed: the weight percent of Perc in the brake cleaning product, the approximate number of product units used per week, and the weight of the product unit itself. Our example facility was using 19 ounce cans of aerosol product with a 94 percent Perc content by weight and they reported using an average of 624 cans of product each year. The weight percent is obtained either directly from the product label or from the material safety data sheet (MSDS) for the product. The Perc usage in terms of grams per year is given by Equation 1.

(1) $$\left(\begin{array}{c}\text{ounces of}\\ 19\ \text{product per}\\ \text{can}\end{array}\right)\left(\frac{624\ cans}{year}\right)\left(\frac{28.35\ grams}{ounce}\right)\left(94\%\ \begin{array}{c}Perc\\ Content\end{array}\right) = 315{,}951\ grams/year$$

It should be noted that MeCl and TCE usage can be calculated by substituting in their corresponding percent content by weight in place of Perc in Equation 1.

2. Determining the Perc Emission Rate

With the Perc usage calculated, we now estimate the acute and annualized emission rates in terms of grams per second. These conversions are necessary because they are required input parameters for the SCREEN3 and ISCST3 models. The acute emission rate is determined by calculating the emissions from the number of brake jobs that are performed each hour by the facility. Based on information collected from the site visits, the facilities visited did not perform more than one brake service (job) in any given hour (usually limited by available manpower, tools, and equipment). Our example facility reported that they performed approximately 624 brake services per year (12 services per week). Using this information, Equation 2 calculates the acute emission rate.

(2) $$\begin{array}{c}Emission\ Rate\\ (Acute)\end{array} = \left(\frac{315{,}951\ grams}{year}\right)\left(\frac{year}{624\ jobs}\right)\left(\frac{1\ job}{hour}\right)\left(\frac{1\ hour}{3600\ secs}\right) = 0.1407\ grams/\text{sec}$$

The annualized Perc emission rate is determined by dividing the Perc usage calculated by Equation 1 by the facility's reported operating schedule. Our example facility reported that their service area operated 3016 hours per year. Using this information, Equation 3 gives the annualized emission rate uniformly distributed over the operating schedule.

(3) $$\begin{array}{c}Emission\ Rate\\ (Annualized)\end{array} = \left(\frac{315{,}951\ grams}{year}\right)\left(\frac{year}{3016\ hours}\right)\left(\frac{1\ hour}{3600\ secs}\right) = 0.0291\ grams/\text{sec}$$

3. Air Dispersion Modeling

a. Running the SCREEN3 Air Dispersion Model

Now that we know the facility's acute and annualized Perc emission rates, physical descriptions of the source, and emission release parameters, we can run the SCREEN3 air dispersion model. Table C-1 summarizes the modeling input parameters for this example. For the AMR facilities, we assumed that the single-story source release height is one-half of the building height. The initial lateral dimension of volume is assumed to be the shortest side of the building exterior divided by the factor 4.3 and the initial vertical dimension of volume is assumed to be the exterior building height divided by the factor 2.15 (U.S. EPA, 1995a). These particular dimension assumptions were selected to represent a modeling scenario that can be generally applied to various sized (e.g., rectangular) AMR facilities. Our example facility is located in an urban area.

Table C-1. SCREEN3 Modeling Input Parameters for Example Facility

Perc Emission Rate (acute) [grams/s]	0.1407
Perc Emission Rate (annualized) [grams/s]	0.0291
Receptor Height [meters][1]	0
Source Release Height [meters][2]	2.3
Initial Lateral Dimension of Volume (σ_{yo}) [meters][3]	2.5
Initial Vertical Dimension of Volume (σ_{zo}) [meters][4]	2.1
Meteorology Option	Full (Acute)/Class 4 (Annual)
Land Type (Urban or Rural)	Urban
Receptor Distance (from center of source)	32
Operating Schedule [hrs/yr]	3016

1. Selected by convention as a ground-level receptor.
2. One-half of building height (15 feet, 4.6 meters)
3. Exterior building width (35 feet, 10.7 meters) divided by factor 4.3 per SCREEN3 User's Guide
4. Exterior building height (15 feet, 2.1 meters) divided by factor 2.15 per SCREEN3 User's Guide

The SCREEN3 model uses these inputs to estimate the downwind, ground-level, maximum 1-hour concentrations for designated distances from the center of the volume source. The estimated acute maximum 1-hour concentration at 32 meters from the center of the facility is 1463 $\mu g/m^3$ and the estimated annualized (chronic) 1-hour concentration is 176 $\mu g/m^3$. It should be noted that the SCREEN3 model must be run twice; once using the acute emission rate and once using the annualized emission rate.

Since potential cancer risks and non-cancer chronic health impacts require an assessment of the annual average concentration of Perc, the U.S. EPA conversion factor of 0.08 (U.S. EPA, 1992) is used to estimate the maximum annual average concentration from the annualized maximum 1-hour concentration. In addition, the maximum annual average concentration is discounted by the operating schedule for the hours the facility does not emit. The maximum annual average concentration is calculated by using Equation 4.

(4)

$$\begin{matrix}\textit{Max Ann. Avg.}\\ \textit{Concentration}\end{matrix} = \left(\begin{matrix}\textit{Maximum } 1-\textit{hr}\\ \textit{Concentration}\\ \textit{(annualized)}\end{matrix}\right)\left(\begin{matrix}\textit{Operating}\\ \textit{Schedule}\\ \textit{[hours/year]}\end{matrix}\right)\left(\frac{\textit{year}}{8760\ \textit{hours}}\right)\ 0.08$$

Substituting in the example data, Equation 5 gives the maximum annual average concentration of 4.848 $\mu g/m^3$.

(5)

$$\begin{matrix}\textit{Max Ann. Avg.}\\ \textit{Concentration}\end{matrix} = \left(176\ \frac{\mu g}{m^3}\right)\left(3016\ \frac{\textit{hours}}{\textit{year}}\right)\left(\frac{1\ \textit{year}}{8760\ \textit{hours}}\right)\ 0.08 = 4.848\ \mu g/m^3$$

A summary of the output from the SCREEN3 modeling is shown in Appendix D (Modeling Results). For more information on the SCREEN3 model, please refer to the SCREEN3 model user's guide (U.S. EPA, 1995).

b. Running the ISCST3 Air Dispersion Model Using Regional-Specific Meteorology

Where regional-specific meteorology information is available, the ISCST3 air dispersion model can be used to provide a more refined analysis of a facility's emissions. Table C-2 summarizes the modeling input parameters for this example using the same example facility and source characteristic assumptions made for SCREEN3.

With ISCST3, you have the option of using a meteorological data set that represents the meteorology in the region the facility is located in. As a result, SCREEN3 and ISCST3 may not necessarily yield the same results for a given facility. In order to estimate what the difference would be, both models would need to be run and compared bearing in mind that each models treats the volume source differently. It should be noted that the ISCST3 model must also be run twice if discrete annual and acute emission rates are being used. While this approach is convenient with the SCREEN3 model, the ISCST3 model is considerably more resource intensive and time consuming to execute. Modeling scenarios under ISCST3 can be greatly simplified if an emission rate of 1 gram per second is used (commonly referred to as an unit emission rate).

Table C-2. ISCST3 Modeling Input Parameters for Example Facility Using Regional-Specific Meteorology

Perc Emission Rate (acute) [grams/s]	0.1407
Perc Emission Rate (annual) [grams/s]	0.0291
Modeled Unit Emission Rate [grams/s]	1.0
Receptor Height [meters][1]	0
Source Release Height [meters][2]	2.3
Initial Lateral Dimension of Volume (σ_{yo}) [meters][3]	4.7
Initial Vertical Dimension of Volume (σ_{zo}) [meters][3]	2.1
Averaging Period	Hourly and Annual
Meteorology	Representative Regional
Land Type (Urban or Rural)	Urban
Receptor Locations	Cartesian Grid Network[4]
Receptor Distance (from center of source)	32
Operating Schedule [hrs/yr]	3016

1. Selected by convention as a ground-level receptor.
2. One-half of building height (15 feet, 4.6 meters)
3. Calculated per ISCST3 User's Guide
4. See Appendix D, Section X., Table 2.

With the unit emission rate, the estimated annual and acute unit concentrations are 113 $\mu g/m^3$ and 5027 $\mu g/m^3$, respectively. Equation 6 is then used to calculate the concentrations for the discrete emission rate scenarios given in Equations 2 and 3.

(6)

$$\begin{pmatrix} \textit{Scenario} \\ \textit{Concentration} \\ (\textit{Annual/Acute}) \end{pmatrix} = \left(\begin{matrix} \textit{Unit} \\ \textit{Concentration} \\ (1.0\ g/s) \end{matrix} \right) \left(\begin{matrix} \textit{Scenario} \\ \textit{Emission Rate} \\ (\textit{Annual/Acute}) \end{matrix} \right)$$

Substituting in the emission rates from Equation 2 and 3, Equations 7 and 8 give the maximum annual concentration of 3.288 $\mu g/m^3$ and the maximum 1-hour (acute) concentration of 707 $\mu g/m^3$.

(7)

$$\begin{pmatrix} \textit{Maximum} \\ \textit{Concentration} \\ (\textit{Annual}) \end{pmatrix} = \left(113\ \frac{\mu g}{m^3} \right) \left(\frac{\text{sec}}{1.0\ gram} \right) \left(0.0291\ \frac{grams}{\text{sec}} \right) = 3.288\ \mu g/m^3$$

(8) $$\text{Maximum Concentration (Acute)} = \left(5027\ \frac{\mu g}{m^3}\right)\left(\frac{\text{sec}}{1.0\ gram}\right)\left(0.1407\ \frac{grams}{\text{sec}}\right) = 707\ \mu g/m^3$$

Since ISCST3 directly calculates the maximum annual and acute concentrations using the facility's operating schedule when using regional-specific meteorology, neither the 0.08 conversion factor adjustment nor the operating schedule adjustment is required.

c. Running the ISCST3 Air Dispersion Model Using Default Meteorology

If regional-specific meteorological data is not available, the ISCST3 model can be run using default meteorological data. The model inputs are substantially similar to those required for regional meteorological data and are summarized in Table C-3.

Table C-3. ISCST3 Modeling Input Parameters for Example Facility Using Default Meteorology

Perc Emission Rate (acute) [grams/s]	0.1407
Perc Emission Rate (annual) [grams/s]	0.0291
Receptor Height [meters][1]	0
Source Release Height [meters][2]	2.3
Initial Lateral Dimension of Volume (σ_{yo}) [meters][3]	4.7
Initial Vertical Dimension of Volume (σ_{zo}) [meters][3]	2.1
Meteorology	Default
Land Type (Urban or Rural)	Urban
Receptor Locations	Cartesian Grid Network
Receptor Distance (from center of source)	32
Operating Schedule [hrs/yr]	3016

1. Selected by convention as a ground-level receptor.
2. One-half of building height (15 feet, 4.6 meters)
3. Calculated per ISCST3 User's Guide

When using default meteorological data, ISCST3 calculates only a maximum 1-hr (acute) concentration instead of both acute and annual concentrations. Under this scenario, again using a unit emission rate, the estimated acute unit concentration is 7845 $\mu g/m^3$ at 32 meters from the

center of the facility. Equation 6 is again used to calculate the concentrations for the acute emission rate given in Equation 2. Substituting in the acute emission rate from Equation 2, Equation 9 gives the maximum 1-hour (acute) concentration of 1104 μg/m^3.

$$\text{(9)} \qquad \begin{matrix}\textit{Maximum}\\ \textit{Concentration}\\ \textit{(Acute)}\end{matrix} = \left(7845\ \frac{\mu g}{m^3}\right)\left(\frac{\text{sec}}{1.0\ gram}\right)\left(0.1407\ \frac{grams}{\text{sec}}\right) = 1104\ \mu g/m^3$$

The maximum annual concentration is calculated by using U.S. EPA conversion factor 0.08 (U.S. EPA, 1992) and adjusting the operating schedule for the hours the facility does not emit, as described by Equation 4. However, the annualized maximum 1-hour concentration must first be calculated as shown in Equation 10. Using Equation 4 with the result from Equation 10, Equation 11 gives the maximum annual average concentration of 6.280 μg/m^3.

$$\text{(10)} \qquad \begin{matrix}\textit{Maximum 1-hr}\\ \textit{Concentration}\\ \textit{(Annulized)}\end{matrix} = \left(7845\ \frac{\mu g}{m^3}\right)\left(\frac{\text{sec}}{1.0\ gram}\right)\left(0.0291\ \frac{grams}{\text{sec}}\right) = 228\ \mu g/m^3$$

$$\text{(11)} \qquad \begin{matrix}\textit{Maximum}\\ \textit{Concentration}\\ \textit{(Annual)}\end{matrix} = \left(228\ \frac{\mu g}{m^3}\right)\left(3016\ \frac{hours}{year}\right)\left(\frac{1\ year}{8760\ hours}\right)\ 0.08 = 6.280\ \mu g/m^3$$

A summary of the output from the ISCST3 modeling is shown in Appendix D (Modeling Results). For more information on the ISCST3 model, please refer to the ISCST3 model user's guide (U.S. EPA, 1995b).

4. Calculation of Potential Cancer Risk and Non-Cancer Acute and Chronic Hazard Indices

In this example, SCREEN3 and the two ISCST3 calculations predicted slightly different maximum concentrations. While either of the three can be used to calculate the potential health impacts, the example calculation will continue with the estimated concentrations from the ISCST3 model using regional-specific meteorological data. We can combine the modeling output with the unit risk factor (cancer effects) or the reference exposure level (non-cancer effects) to determine the potential cancer risk and corresponding acute and chronic hazard indices. The risk assessments are conducted using guidance from the California Air Pollution Control Officers Association (CAPCOA), Revised 1992, Air Toxic "Hot Spots" Program Risk Assessment Guidelines (CAPCOA, 1993). For this example, we calculated the potential cancer

and non-cancer health impacts at a near-source location of 32 meters from the center of the volume source (five meters away from the edge of the building). We also assumed that a MEIR (resident) and a MEIW (worker) are exposed to the same concentration. The inhalation unit risk factor (URF) for Perc is 5.9 x 10^{-6} $(\mu g/m^3)^{-1}$; the acute non-cancer reference exposure level (REL) is 20.0 x 10^3 $\mu g/m^3$ and the chronic REL is 35 $\mu g/m^3$ (CAPCOA, 1993). Equation 12 shows the basic algorithm for determining the potential cancer risk, in chances per million, for a residential location (MEIR).

(12)
$$\underset{(Resident)}{Cancer\ Risk} = \left(\underset{Concentration}{Max.\ Ann.\ Avg.}\right)(URF)\left(\frac{10^6}{million}\right)$$

The factor 10^6/million is used to convert the result into the standard reporting unit, chances per million. Substituting in the maximum annual average concentration from Equation 7 and the Perc URF, Equation 13 gives us the potential cancer risk for a residential receptor 32 meters away from the center of the building.

(13)
$$\underset{(Resident)}{Cancer\ Risk} = \left(3.288\ \frac{\mu g}{m^3}\right)\left(5.9\ x\ 10^{-6}\frac{m^3}{\mu g}\right)\left(\frac{10^6}{million}\right) = 19.4\ chances\ per\ million$$

Equation 14 gives the formula for calculating the potential risk for an off-site worker (MEIW). Using guidance from OEHHA, the exposure period of an off-site worker is adjusted to allow for a shorter working lifetime and a shorter operating schedule. This first adjustment is made to allow for a shorter working lifetime, 46 years, rather than a 70-year exposure lifetime which is assumed for residential exposure. The second adjustment is appropriate only when the offsite worker schedule does not coincide with or is shorter than that of the facility being assessed (OEHHA, 1997). It is assumed that a nearby worker would be exposed 8 hours a day, 240 days a year (1920 hours/year) for 46 years (CAPCOA, 1993).

(14)
$$\underset{(Worker)}{Cancer\ Risk} = \left(\underset{Concentration}{Max\ Ann.\ Avg.}\right)(URF)\left(\frac{Offsite\ Worker\ Coincident\ Operating\ Schedule\ [hr/yr]}{Facility\ Operating\ Schedule\ [hr/yr]}\right)\left(\frac{46\text{-}year\ Working\ Lifetime}{70\text{-}year\ Residential\ Lifetime}\right)\left(\frac{10^6}{million}\right)$$

Substituting in the maximum annual average concentration from Equation 7, the URF, and the operating schedule (3016 hours per year, for this example), Equation 15 gives the risk for an offsite worker.

(15)
$$\underset{(Worker)}{Cancer\ Risk} = \left(3.288\ \frac{\mu g}{m^3}\right)\left(5.9x10^{-6}\ \frac{m^3}{\mu g}\right)\left(\frac{1920\ hrs/yr}{3016\ hrs/yr}\right)\left(\frac{46\ years}{70\ years}\right)\left(\frac{10^6}{million}\right) = 8.1\ \underset{per\ million}{chances}$$

Equations 16 and 17 give the formulas for calculating the non-cancer acute and chronic hazard indices, respectively. The acute hazard index is determined by taking the acute maximum 1-hour concentration (acute exposure) and dividing by the acute REL of 20,000 μg/m^3.

(16)
$$\text{Acute Hazard Index} = \frac{\left(\text{Maximum 1-hr. Concentration (Acute)}\right)}{\left(\text{Acute REL}\right)}$$

(17)
$$\text{Chronic Hazard Index} = \frac{\left(\text{Max. Ann. Avg. Concentration}\right)}{\left(\text{Chronic REL}\right)}$$

Similarly, the chronic hazard index is determined by taking the maximum annual average concentration (chronic exposure) and dividing by the chronic REL of 35 μg/m^3. Finally, Equations 18 and 19 solve for the acute and chronic hazard indices, respectively.

(18)
$$\text{Acute Hazard Index} = \frac{\left(707\ \frac{\mu g}{m^3}\right)}{\left(20000\ \frac{\mu g}{m^3}\right)} = 0.035$$

(19)
$$\text{Chronic Hazard Index} = \frac{\left(3.288\ \frac{\mu g}{m^3}\right)}{\left(35\ \frac{\mu g}{m^3}\right)} = 0.094$$

Tables C-3 summarizes the results that have been calculated in this example for ISCST3 using regional-specific meteorology.

Table C-3. Summary of ISCST3 Results from Example Calculation

Parameter	Result	Reference
Perc Emission Rate (acute), [grams/s]	0.1407	Equation 2
Perc Emission Rate (annualized) [grams/s]	0.0291	Equation 3
Maximum Concentration (unit annual), [μg/m^3]	113	ISCST3 Model Output
Maximum Concentration (unit acute), [μg/m^3]	5027	ISCST3 Model Output
Maximum Concentration (annual) , [μg/m^3]	3.288	Equation 7
Maximum Concentration (acute), [μg/m^3]	707	Equation 8
Cancer Risk (Resident) [chances per million]	19.4	Equation 13
Cancer Risk (Worker) [chances per million]	8.1	Equation 15
Non-Cancer Acute Hazard Index	0.035	Equation 18
Non-Cancer Chronic Hazard Index	0.094	Equation 19

As previously mentioned, this methodology can be extended to MeCl and TCE (or any other pollutant of interest) by using Equation 1 to calculate MeCl and TCE emission rates. Additionally, the URF and acute and chronic RELs for these toxic pollutants will also be needed. Table C-4 summarizes the necessary health values. A summary of results from the modeling performed on each of the facilities visited, as well as the generic facilities, is presented in Appendix D.

Table C-4. Pollutant-Specific Health Values

Pollutant	Unit Risk Factor (URF)	Acute Reference Exposure Level	Chronic Reference Exposure Level
Perchloroethylene (Perc)	5.9×10^{-6} $(\mu g/m^3)^{-1}$	20,000 $\mu g/m^3$	35 $\mu g/m^3$
Methylene Chloride (MeCl)	1.0×10^{-6} $(\mu g/m^3)^{-1}$	14,000 $\mu g/m^3$	3000 $\mu g/m^3$
Trichloroethylene (TCE)	2.0×10^{-6} $(\mu g/m^3)^{-1}$	none	640 $\mu g/m^3$

B. Calculation of the Regional Cancer Risk from Specific Facilities

To perform an assessment of the potential regional cancer risk at the thirteen specific facilities an assessor would start by running a refined air dispersion model. For this analysis, concentration estimates were produced using ISCST3 and multiple years of meteorological data. An example of the input for the ISCST3 model is provided in Table C-2.

The output from the ISCST3 model consists of concentrations at specified locations around a facility that can be referred to as a grid of receptor points. Based on the spatial resolution of the available population data and existing software tools, a 31-kilometer by 31-kilometer system of one-kilometer, square grid-cells was established for each facility as a spatial basis of analysis. Each grid system is centered on the represented facility.

After the modeling is complete, further post processing is performed to produce one concentration estimate per grid-cell. Two receptor networks were used for estimating concentrations with ISCST3 (at each receptor a concentration, exclusive to each facility's emissions, is estimated). One network consists of receptors spaced one-kilometer apart, coincident with the center of each of the one-kilometer, square grid-cells in the 31-kilometer by 31-kilometer grid system. These sparsely spaced receptors are used to represent the homogeneous, low grid-cell concentrations experienced outside of the 9 most central grid-cells where concentrations tend to be less uniform. However, because a large concentration gradient is experienced close to the source (i.e., inhomogeneous emissions), a network consisting of many receptors per grid-cell (100 meters apart) was used. Concentrations estimated at these receptors were averaged, per grid-cell, to produce average concentrations for the nine most central cells.

Census tract population data were acquired from the State Department of Finance. Spatially, this data represents California census tract population estimates for 1998, grown from 1990 Census data. A census tract, generally, represents an area larger than one square kilometer. Data processing of population data took into consideration that grid-cell boundaries overlap with census tract boundaries. Where multiple grid-cells split a census block population estimate, the population data for the single census tract is allocated based on the relative area of the census tract falling in each grid-cell. This is consistent with past population exposure analyses and assumes a homogeneous distribution of population within the tract.

Population data and modeled concentration results were processed to represent the average population and average concentration within each of the one-kilometer square grid-cells in the 31-kilometer by 31-kilometer grid system. The averaged population and concentration data for each grid-cell were overlaid. The concentration and population estimates were then merged based on the represented grid-cell and frequency distributions of the regional population exposure to each of the annual modeling results were created, based on a uniform range of receptor concentrations. See Appendix D, Section E for a complete listing of all thirteen facilities population exposure estimates and Table C-5 for an example.

In Table C-5, the left column presents the modeled annual concentration estimate based on a unit emission rate of one gram per second and the next 6 columns present the estimated population exposed to that concentration per meteorology year. In this example, the five columns right of the concentration are for Oakland 1960 to 1964. The last column is the average population surrounding this facility in Oakland over the years 1960 to 1964.

For example, the results from Table C-5 indicate that within one-kilometer of this facility, on average, 5,843 persons are estimated to be exposed to concentrations of 0.163 $\mu g/m^3$ up to 6.28 $\mu g/m^3$ (based on a one gram per second emissions rate) using Oakland meteorological data for years 1960 through 1964.

To make this table more meaningful, the unit emission rates can be converted to potential cancer risk estimates. To perform this calculation the additional information that is needed is actual emission rate for the facility being evaluated and the pollutant-specific unit risk factor (URF). From Table C-3, the annual emission rate for this facility is 0.0291 grams per second. See Appendix D for a listing of the emission rates used for each modeled facility. The URF for Perc is 5.9×10^{-6} (microgram per cubic meter)$^{-1}$ or $(\mu g/m^3)^{-1}$. Equation 20 shows the algorithm for converting a unit emission rate into an estimate of the potential cancer risk reported in chances per million.

(20)

$$Cancer\ Risk = \left(\begin{array}{c} Facility\text{-}Specific \\ Annual\ Emissions \\ Rate \end{array}\right)\left(\begin{array}{c} Modeled\ Annual \\ Average \\ Concentration \end{array}\right)(URF)\left(\frac{10^6}{million}\right)$$

Table C-5. Example Table of Population Exposure Estimates

$\mu g/m^3$ >=	OAK60	OAK61	OAK62	OAK63	OAK64	AVG
0.000	1,300,824	1,300,824	1,300,824	1,300,824	1,300,824	1,300,824
0.001	593,781	610,692	638,801	610,352	618,981	614,521
0.003	377,141	385,071	401,672	391,357	423,603	395,769
0.004	268,996	281,562	283,035	268,881	312,438	282,982
0.006	192,742	203,315	220,437	216,063	234,450	213,401
0.007	176,510	174,360	181,645	165,209	194,184	178,382
0.009	132,661	143,847	149,503	143,106	142,784	142,380
0.010	112,796	115,642	119,774	119,184	131,794	119,838
0.011	103,975	106,927	105,949	105,949	119,588	108,478
0.013	95,571	90,808	99,529	100,217	95,886	96,402
0.014	87,623	86,550	91,753	78,587	87,623	86,427
0.016	80,258	69,719	87,623	70,114	79,699	77,483
0.017	59,443	61,804	61,804	66,517	67,676	63,449
0.020	56,185	58,546	54,494	63,259	55,002	57,497
0.024	52,133	52,133	52,133	56,185	44,033	51,323
0.031	38,289	42,785	38,289	42,785	38,289	40,087
0.041	29,615	33,907	33,907	33,907	29,615	32,190
0.047	25,101	25,101	25,101	25,101	25,101	25,101
0.054	12,008	12,008	20,702	16,407	20,702	16,365
0.163	4,302	4,302	12,008	4,302	4,302	**5,843**

The factor 10^6/million in Equation 20 is used to convert the result into the standard reporting unit, chances per million. Substituting in the facility's actual emission rate from Table C-3, the maximum annual average concentration from the left hand column of Table C-5, and the Perc URF, Equation 21 gives us the potential cancer risk for the population estimates listed in the right six columns.

(21) $$Cancer\ Risk = (0.0291)(0.163)\left(5.9 \times 10^{-6}\frac{m^3}{\mu g}\right)\left(\frac{10^6}{million}\right) = 0.03\ chances\ per\ million$$

Returning to the earlier example from Table C-5, where the results indicate that within one-kilometer of this facility, on average, 5,843 persons are estimated to be exposed to concentrations of 0.163 $\mu g/m^3$ to 6.28 $\mu g/m^3$, we now see that this unit-emissions-based concentration translates to an estimated cancer risk of 0.03 chances per million to 19 chances per million. See Table VI-6 in Chapter VI for a list of the estimated regional cancer risks for the one-kilometer grid-cell concentrations at all thirteen specific facilities.

Although the potential cancer risk from the one-kilometer grid-cell concentration is not very large, this does not mean that higher potential cancer risks are not present within the one-kilometer grid-cell. High concentration gradients have been shown to exist within 100 meters of a facility. Examples of higher potential cancer risks within the one-kilometer grid-cell at the thirteen specific facilities have been estimated at the near source, MEIR, and MEIW locations and are presented in Table VI-6 in Chapter VI.

REFERENCES FOR APPENDIX C

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Appendix D

Specific and Generic Facility Modeling Results

Appendix D. Specific and Generic Facility Modeling Results

This appendix presents the modeling input parameters and results summary for the 54 specific facilities and three generic facilities that were modeled. The modeling utilized both the SCREEN3 and ISCST3 air dispersion models. The ISCST3 model was used for 13 specific facilities and the generic facilities. All other facilities were modeled using SCREEN3.

A. Perchloroethylene-Using Facilities Modeled with SCREEN3

This section summarizes the results from our modeling of the 29 facilities that used perchloroethylene (Perc) brake cleaning products which did not contain either methylene chloride (MeCl) or trichloroethylene (TCE). Tables D-1 thru D-5 present the modeling input parameters for each facility modeled using SCREEN3 . Tables D-6 thru D-11 summarize the modeling results.

Table D-1. Modeling Input Parameters for Facilities E, H, L, N, Q, R, and V

Parameter	Value[1]						
	Facility E	**Facility H**	**Facility L**	**Facility N**	**Facility Q**	**Facility R**	**Facility V**
Source Type	Volume	Volume	Volume	Volume	Volume	Volume	Volume
Facility Type	Service Station	Fleet	Service Station	Dealership	General Auto	General Auto	Brake Shop
Perc Content [%]	65 to 94	65 to 94	65 to 94	99	65 to 94	65 to 94	90
Perc Emission Rate - Annual [grams/s]	0.0007 to 0.0010	0.0010 to 0.0014	0.0025 to 0.0036	0.00231	0.0260 to 0.0375	0.0227 to 0.0328	0.0002
Perc Emission Rate - Acute [grams/s]	0.0490 to 0.0704	0.0075 to 0.0108	0.1350 to 0.1944	0.0076	0.2925 to 0.4219	0.5562 to 0.0804	0.0052
Receptor Height [m]	0	0	0	0	0	0	0
Source Release Height [m]	2.896	4.572	2.286	2.286	3.048	2.438	2.286
Initial Lateral Dimension of Volume [m]	1.949	12.995	3.573	3.190	4.749	4.253	2.127
Initial Vertical Dimension of Volume [m]	2.694	4.253	2.127	2.127	2.835	2.268	2.127
Met Option - Acute/Annual	Full	Full	Full	Full	Full	Full	Full
Land Type (Urban or Rural)	Urban	Urban	Urban	Urban	Urban	Urban	Urban
Operating Schedule [hrs/wk]	69	47.5	54	42.5	45	51.5	45

1. These facilities use a brake cleaning product which shows a Perc content range on the MSDS; therefore a range is presented for the Perc emission rate.

Table D-2. Modeling Input Parameters for Facilities A-13, A-14, A-15, A-16, A-21, and A-29

Parameter	Value[1]					
	Facility A-13	**Facility A-14**	**Facility A-15**	**Facility A-16**	**Facility A-21**	**Facility A-29**
Source Type	Volume	Volume	Volume	Volume	Volume	Volume
Facility Type	General Automotive	General Automotive	General Automotive	General Automotive	Brake Shop	Fleet
Perc Content [%]	65 to 94	65 to 94	70 to 94	65 to 94	70 to 94	65 to 94
Perc Emission Rate - Annual [grams/s]	0.00006 to 0.00009	0.0005 to 0.0007	0.0023 to 0.0033	0.0030 to 0.0044	0.0037 to 0.0050	0.0130 to 0.0188
Perc Emission Rate - Acute [grams/s]	0.0006 to 0.0009	0.0225 to 0.0325	0.0524 to 0.0704	0.0162 to 0.0234	0.0524 to 0.0703	0.0898 to 0.1299
Receptor Height [m]	0	0	0	0	0	0
Source Release Height [m]	2.743	2.438	2.286	2.743	2.438	3.810
Initial Lateral Dimension of Volume [m]	3.332	2.481	5.316	3.899	5.671	4.253
Initial Vertical Dimension of Volume [m]	2.552	2.268	2.127	2.552	2.268	3.544
Met Option - Annual	Class 4	Class 4	Class 4	Class 4	Class 4	Class 4
Met Option - Acute	Full	Full	Full	Full	Full	Full
Land Type (Urban or Rural)	Urban	Urban	Urban	Urban	Urban	Urban
Operating Schedule [hrs/wk]	60.5	47.5	45	64	56.5	90

1. These facilities use a brake cleaning product which shows a Perc content range on the MSDS; therefore a range is presented for the Perc emission rate.

Table D-3. Modeling Input Parameters for Facilities A-30, A-31, A-32, A-35, A-36, and A-50

Parameter	Value[1]					
	Facility A-30	**Facility A-31**	**Facility A-32**	**Facility A-35**	**Facility A-36**	**Facility A-50**
Source Type	Volume	Volume	Volume	Volume	Volume	Volume
Facility Type	Fleet	General Automotive	General Automotive	Brake Shop	Dealership	General Automotive
Perc Content [%]	25 to 85	65 to 94	65 to 94	65 to 94	65 to 94	65 to 94
Perc Emission Rate - Annual [grams/s]	0.0023 to 0.0078	0.0088 to 0.0127	0.0006 to 0.0009	0.0055 to 0.0079	0.0273 to 0.0394	0.0040 to 0.0057
Perc Emission Rate - Acute [grams/s]	0.0531 to 0.1806	0.0122 to 0.0176	0.0244 to 0.0353	0.2547 to 0.3681	0.0717 to 0.1037	0.0649 to 0.0938
Receptor Height [m]	0	0	0	0	0	0
Source Release Height [m]	4.572	2.743	2.591	3.810	3.810	2.438
Initial Lateral Dimension of Volume [m]	5.671	3.190	2.835	4.607	4.253	2.127
Initial Vertical Dimension of Volume [m]	4.253	2.552	2.410	3.544	3.544	2.268
Met Option - Annual	Class 4	Class 4	Class 4	Class 4	Class 4	Class 4
Met Option - Acute	Full	Full	Full	Full	Full	Full
Land Type (Urban or Rural)	Urban	Urban	Urban	Urban	Urban	Urban
Operating Schedule [hrs/wk]	92.5	55.5	40	46.5	50	49

1. These facilities use a brake cleaning product which shows a Perc content range on the MSDS; therefore a range is presented for the Perc emission rate.

Table D-4. Modeling Input Parameters for Facilities A-51, A-54, A-73, A-84, and A-87

Parameter	Value[1]				
	Facility A-51	**Facility A-54**	**Facility A-73**	**Facility A-84**	**Facility A-87**
Source Type	Volume	Volume	Volume	Volume	Volume
Facility Type	General Automotive	General Automotive	General Automotive	General Automotive	Dealership
Perc Content [%]	90 to 99	65 to 94	65 to 75	89	60 to 99
Perc Emission Rate - Annual [grams/s]	0.0025 to 0.0027	0.0057 to 0.0083	0.0130 to 0.0150	0.0142	0.0187 to 0.0308
Perc Emission Rate - Acute [grams/s]	0.1417 to 0.1558	0.0730 to 0.1056	0.0487 to 0.0562	0.1441	0.0280 to 0.0462
Receptor Height [m]	0	0	0	0	0
Source Release Height [m]	2.438	2.591	3.048	3.353	3.048
Initial Lateral Dimension of Volume [m]	1.559	1.772	2.481	2.481	7.088
Initial Vertical Dimension of Volume [m]	2.268	2.410	2.835	3.119	2.835
Met Option - Annual	Class 4	Class 4	Class 4	Class 4	Class 4
Met Option - Acute	Full	Full	Full	Full	Full
Land Type (Urban or Rural)	Urban	Urban	Urban	Urban	Urban
Operating Schedule [hrs/wk]	57	51	45	71	45

1. These facilities use a brake cleaning product which shows a Perc content range on the MSDS; therefore a range is presented for the Perc emission rate.

Table D-5. Modeling Input Parameters for Facilities A-88, A-89, A-90, A-93, and A-94

Parameter	Value[1]				
	Facility A-88	**Facility A-89**	**Facility A-90**	**Facility A-93**	**Facility A-94**
Source Type	Volume	Volume	Volume	Volume	Volume
Facility Type	General Automotive	General Automotive	Service Station	General Automotive	Service Station
Perc Content [%]	20 to 50	65 to 94	65 to 94	65 to 94	65 to 94
Perc Emission Rate - Annual [grams/s]	0.0090 to 0.0224	0.0039 to 0.0056	0.0041 to 0.0059	0.0088 to 0.0128	0.0015 to 0.0022
Perc Emission Rate - Acute [grams/s]	0.1495 to 0.3739	0.0097 to 0.0141	0.1947 to 0.2814	0.0973 to 0.1407	0.0340 to 0.0493
Receptor Height [m]	0	0	0	0	0
Source Release Height [m]	3.200	2.438	2.591	2.438	2.743
Initial Lateral Dimension of Volume [m]	3.544	3.544	1.772	4.253	1.772
Initial Vertical Dimension of Volume [m]	2.977	2.268	2.410	2.268	2.552
Met Option - Annual	Class 4	Class 4	Class 4	Class 4	Class 4
Met Option - Acute	Full	Full	Full	Full	Full
Land Type (Urban or Rural)	Urban	Urban	Urban	Urban	Urban
Operating Schedule [hrs/wk]	50	50	48	55	45

1. These facilities use a brake cleaning product which shows a Perc content range on the MSDS; therefore a range is presented for the Perc emission rate.

Table D-6. Summary of Modeling Results for Facilities E, H, L, N, and Q

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Maximum 1-hour Conc. (acute) [μg/m³]	Maximum 1-hour Conc. (annualized) [μg/m³]	Maximum Annual Avg. Conc. [μg/m³]	Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]				Resident	Worker	Acute	Chronic
E[3]	Near-Source	20	16	710.0 to 1026	10.29 to 14.87	0.3372 to 0.4872	1.99 to 2.87	0.70 to 1.01	0.0355 to 0.0513	0.0096 to 0.0139
	MEIW	40	36	384.9 to 556.2	5.578 to 8.061	0.1828 to 0.2641	1.08 to 1.56	0.38 to 0.55	0.0192 to 0.0278	0.0052 to 0.0075
	MEIR	805	801	4.44 to 6.41	0.0642 to 0.0929	0.0021 to 0.0030	0.01 to 0.02	0.00 to 0.01	0.0002 to 0.0003	0.0001 to 0.0001
H[3]	Near-Source	30	2	17.89 to 25.81	2.265 to 3.267	0.0511 to 0.0737	0.30 to 0.43	0.15 to 0.22	0.0009 to 0.0013	0.0015 to 0.0021
	MEIW	330	302	2.10 to 3.02	0.2652 to 0.3825	0.0060 to 0.0086	0.04 to 0.05	0.02 to 0.03	0.0001 to 0.0002	0.0002 to 0.0002
	MEIR	830	802	0.58 to 0.83	0.0728 to 0.105	0.0016 to 0.0024	< 0.01 to 0.01	< 0.01 to 0.01	<0.0001	0.0000 to 0.0001
L[3]	Near-Source	20	12	1689 to 2439	31.27 to 45.16	0.8019 to 1.1581	4.73 to 6.83	2.13 to 3.07	0.0844 to 0.1219	0.0229 to 0.0331
	MEIW	35	27	1096 to 1583	20.3 to 29.31	0.5206 to 0.7516	3.07 to 4.43	1.38 to 1.99	0.0548 to 0.0791	0.0149 to 0.0215
	MEIR	240	232	82.89 to 119.7	1.535 to 2.216	0.0394 to 0.0568	0.23 to 0.34	0.10 to 0.15	0.0041 to 0.0060	0.0011 to 0.0016
N	Near-Source	20	13	101.8	30.95	0.6247	3.69	2.10	0.0051	0.0178
	MEIW	117	110	14.46	4.394	0.0887	0.52	0.30	0.0007	0.0025
	MEIR	407	400	2.01	0.6123	0.0124	0.07	0.04	0.0001	0.0004
Q[3]	Near-Source	20	10	2427 to 3509	215.7 to 311.9	4.6095 to 6.6653	27.20 to 39.33	14.66 to 21.20	0.1213 to 0.1754	0.1317 to 0.1904
	MEIW	71	61	879.3 to 1271	78.16 to 113	1.6703 to 2.4148	9.85 to 14.25	5.31 to 7.68	0.0440 to 0.0636	0.0477 to 0.0690
	MEIR	86	76	701.7 to 1015	62.37 to 90.21	1.3328 to 1.9278	7.86 to 11.37	4.24 to 6.13	0.0351 to 0.0507	0.0381 to 0.0551

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the building exterior (envelope).
3. These facilities use a Perc-containing brake cleaner which shows a Perc content range on the Material Safety Data Sheet; therefore, a range is presented for the results.

Table D-7. Summary of Modeling Results for Facilities R, V, A-13, A-14, and A-15

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Maximum 1-hour Conc. (acute) [μg/m³]	Maximum 1-hour Conc. (annualized) [μg/m³]	Maximum Annual Avg. Conc. [μg/m³]	Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]				Resident	Worker	Acute	Chronic
R[3]	Near-Source	20	11	592.9 to 857.0	242 to 349.8	5.9185 to 8.5549	34.92 to 50.47	16.45 to 23.78	0.0296 to 0.0429	0.1691 to 0.2444
	MEIW	39	30	361.9 to 523.3	147.7 to 213.6	3.6122 to 5.2239	21.31 to 30.82	10.04 to 14.52	0.0181 to 0.0262	0.1032 to 0.1493
	MEIR	55	46	255.8 to 369.7	104.4 to 150.9	2.5533 to 3.6905	15.06 to 21.77	7.10 to 10.26	0.0128 to 0.0185	0.0730 to 0.1054
V[3]	Near-Source	20	15	86.41	3.837	0.0820	0.48	0.26	0.0043	0.0023
	MEIW	23	18	77.38	3.436	0.0734	0.43	0.23	0.0039	0.0021
	MEIR[4]	11	6	>86.41	>3.837	>0.0820	>0.48	>0.26	>0.0043	>0.0023
A-13[3]	Near-Source	20	13	6.81 to 10.22	0.4835 to 0.7253	0.0139 to 0.0208	0.08 to 0.12	0.03 to 0.05	0.0003 to 0.0005	0.0004 to 0.0006
	MEIW	25	18	5.90 to 8.85	0.3928 to 0.5893	0.0113 to 0.0169	0.07 to 0.10	0.03 to 0.04	0.0003 to 0.0004	0.0003 to 0.0005
	MEIR	83	73	1.74 to 2.61	0.0823 to 0.1235	0.0024 to 0.0035	0.01 to 0.02	0.01 to 0.01	0.0001 to 0.0001	0.0001 to 0.0001
A-14[3]	Near-Source	20	15	331 to 478	4.67 to 6.76	0.105 to 0.152	0.62 to 0.90	0.32 to 0.46	0.017 to 0.024	0.003 to 0.004
	MEIW[4]	11	6	>331 to >478	>4.67 to >6.76	>0.105 to >0.152	>0.62 to >0.90	>0.32 to >0.46	>0.017 to >0.024	>0.003 to >0.004
	MEIR	112	107	47.10 to 68.03	0.4225 to 0.6113	0.0095 to 0.0138	0.06 to 0.08	0.03 to 0.04	0.0024 to 0.0034	0.0003 to 0.0004
A-15[3]	Near-Source	20	9	503.7 to 676.7	16.03 to 21.53	0.3426 to 0.4601	2.02 to 2.71	1.09 to 1.46	0.0252 to 0.0338	0.0098 to 0.0131
	MEIW	41	30	300.5 to 403.7	7.754 to 10.42	0.1657 to 0.2227	0.98 to 1.31	0.53 to 0.71	0.0150 to 0.0202	0.0047 to 0.0064
	MEIR	87	76	131 to 176	2.758 to 3.706	0.0589 to 0.0792	0.35 to 0.47	0.19 to 0.25	0.0066 to 0.0088	0.0017 to 0.0023

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the building exterior (envelope).
3. These facilities use a Perc-containing brake cleaner which shows a Perc content range on the Material Safety Data Sheet; therefore, a range is presented for the results.
4. The receptor is located closer than 20 meters to the center of the volume source, which is the minimum distance modeled; therefore, the potential health impacts are likely to be greater than those listed here. However, we do not anticipate that the potential health impacts will be significant. The impacts shown here are at the near-source location of 20 meters.

Table D-8. Summary of Modeling Results for Facilities A-16, A-21, A-29, A-30, and A-31

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Maximum 1-hour Conc. (acute) [μg/m³]	Maximum 1-hour Conc. (annualized) [μg/m³]	Maximum Annual Avg. Conc. [μg/m³]	Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]				Resident	Worker	Acute	Chronic
A-16[3]	Near-Source	20	12	166.9 to 241.1	22.54 to 32.63	0.6851 to 0.9917	4.04 to 5.85	1.53 to 2.22	0.0083 to 0.0121	0.0196 to 0.0283
	MEIW	38	30	105.4 to 152.2	11.79 to 17.07	0.3583 to 0.5188	2.11 to 3.06	0.80 to 1.16	0.0053 to 0.0076	0.0102 to 0.0148
	MEIR	313	305	6.35 to 9.17	0.4308 to 0.6235	0.0131 to 0.0189	0.08 to 0.11	0.03 to 0.04	0.0003 to 0.0005	0.0004 to 0.0005
A-21[3]	Near-Source	20	8	458.4 to 615	23.63 to 31.72	0.6340 to 0.8511	3.74 to 5.02	1.61 to 2.16	0.0229 to 0.0308	0.0181 to 0.0243
	MEIW	24	12	414.9 to 556.9	20.32 to 27.28	0.5452 to 0.7320	3.22 to 4.32	1.38 to 1.85	0.0207 to 0.0278	0.0156 to 0.0209
	MEIR	126	114	77.06 to 103.4	2.396 to 3.217	0.0643 to 0.0863	0.38 to 0.51	0.16 to 0.22	0.0039 to 0.0052	0.0018 to 0.0025
A-29[3]	Near-Source	20	11	665.8 to 963.1	96.39 to 139.4	4.1197 to 5.9579	24.31 to 35.15	6.55 to 9.48	0.0333 to 0.0482	0.1177 to 0.1702
	MEIW	331	322	30.85 to 44.62	4.465 to 6.458	0.1908 to 0.2760	1.13 to 1.63	0.30 to 0.44	0.0015 to 0.0022	0.0055 to 0.0079
	MEIR	161	152	90.25 to 130.5	13.06 to 18.89	0.5582 to 0.8074	3.29 to 4.76	0.89 to 1.28	0.0045 to 0.0065	0.0159 to 0.0231
A-30[3]	Near-Source	20	8	274.8 to 934.5	11.9 to 40.41	0.5227 to 1.7751	3.08 to 10.47	0.81 to 2.75	0.0137 to 0.0467	0.0149 to 0.0507
	MEIW	495	483	9.42 to 32.05	0.4081 to 1.386	0.0179 to 0.0609	0.11 to 0.36	0.03 to 0.09	0.0005 to 0.0016	0.0005 to 0.0017
	MEIR	495	483	9.42 to 32.05	0.4081 to 1.386	0.0179 to 0.0609	0.11 to 0.36	0.03 to 0.09	0.0005 to 0.0016	0.0005 to 0.0017
A-31[3]	Near-Source	20	13	142 to 205	72.24 to 105	1.904 to 2.757	11.23 to 16.3	4.9 to 7.1	0.0071 to 0.0103	0.0544 to 0.0788
	MEIW[4]	13	6	>142 to >205	>72.24 to >105	>1.904 to >2.757	>11.2 to >16.3	>4.9 to >7.1	>0.0071 to >0.0103	>0.0544 to >0.0788
	MEIR	226	229	7.63 to 11.01	2.079 to 3.01	0.0548 to 0.0793	0.32 to 0.47	0.14 to 0.02	0.0004 to 0.0006	0.0016 to 0.0023

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the building exterior (envelope).
3. These facilities use a Perc-containing brake cleaner which shows a Perc content range on the Material Safety Data Sheet; therefore, a range is presented for the results.
4. The receptor is located closer than 20 meters to the center of the volume source, which is the minimum distance modeled; therefore, the potential health impacts are likely to be greater than those listed here. However, we do not anticipate that the potential health impacts will be significant. The impacts shown here are at the near-source location of 20 meters.

Table D-9. Summary of Modeling Results for Facilities A-32, A-35, A-36, A-50, and A-51

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Maximum 1-hour Conc. (acute) [μg/m³]	Maximum 1-hour Conc. (annualized) [μg/m³]	Maximum Annual Avg. Conc. [μg/m³]	Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]				Resident	Worker	Acute	Chronic
A-32[3]	Near-Source	20	14	318.3 to 460.5	5.507 to 7.945	0.1046 to 0.1509	0.62 to 0.89	0.37 to 0.54	0.0159 to 0.0230	0.0030 to 0.0043
	MEIW	23	17	289.4 to 418.7	4.812 to 6.941	0.0914 to 0.1318	0.54 to 0.78	0.33 to 0.47	0.0145 to 0.0209	0.0026 to 0.0038
	MEIR	143	137	34.12 to 49.36	0.3528 to 0.509	0.0067 to 0.0097	0.04 to 0.06	0.02 to 0.03	0.0017 to 0.0025	0.0002 to 0.0003
A-35[3]	Near-Source	20	10	1790 to 2588	29.68 to 42.9	0.6554 to 0.9473	3.87 to 5.59	2.02 to 2.92	0.0895 to 0.1294	0.0187 to 0.0271
	MEIW	25	15	1606 to 2321	25.14 to 36.34	0.5551 to 0.8025	3.28 to 4.73	1.71 to 2.47	0.0803 to 0.1161	0.0159 to 0.0229
	MEIR	162	152	249.8 to 361.1	2.294 to 3.316	0.0507 to 0.0732	0.30 to 0.43	0.16 to 0.23	0.0125 to 0.0181	0.0014 to 0.0021
A-36[3]	Near-Source	20	11	531.6 to 768.9	154.9 to 223.5	3.678 to 5.307	21.7 to 31.31	10.53 to 15.19	0.0266 to 0.0384	0.1051 to 0.1516
	MEIW	85	76	165.6 to 239.5	31.6 to 45.7	0.7517 to 1.085	4.44 to 6.4	2.15 to 3.11	0.0083 to 0.0120	0.0215 to 0.0310
	MEIR	161	152	72.06 to 104.2	11.68 to 16.86	0.2773 to 0.4003	1.64 to 2.36	0.79 to 1.15	0.0036 to 0.0052	0.0079 to 0.0114
A-50[3]	Near-Source	20	15	1032 to 1491	42.07 to 60.82	0.9789 to 1.415	5.78 to 8.35	2.86 to 4.13	0.0516 to 0.0746	0.0280 to 0.0404
	MEIW	20	15	1032 to 1491	42.07 to 60.82	0.9789 to 1.415	5.78 to 8.35	2.86 to 4.13	0.0516 to 0.0746	0.0280 to 0.0404
	MEIR	20	15	1032 to 1491	42.07 to 60.82	0.9789 to 1.415	5.78 to 8.35	2.86 to 4.13	0.0516 to 0.0746	0.0280 to 0.0404
A-51[3]	Near-Source	20	17	2593 to 2851	29.5 to 32.4	0.799 to 0.876	4.71 to 5.17	2.01 to 2.2	0.1297 to 0.143	0.0228 to 0.0250
	MEIW[4]	9	6	>2593 to >2851	>29.5 to >32.4	>0.799 to >0.876	>4.71 to >5.17	>2.01 to >2.2	>0.1297 to >0.143	>0.0228 to >0.0250
	MEIR	26	23	2059 to 2264	21.78 to 23.88	0.5896 to 0.6464	3.48 to 3.81	1.48 to 1.62	0.1030 to 0.1132	0.0168 to 0.0185

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the building exterior (envelope).
3. These facilities use a Perc-containing brake cleaner which shows a Perc content range on the Material Safety Data Sheet; therefore, a range is presented for the results.
4. The receptor is located closer than 20 meters to the center of the volume source, which is the minimum distance modeled; therefore, the potential health impacts are likely to be greater than those listed here. However, we do not anticipate that the potential health impacts will be significant. The impacts shown here are at the near-source location of 20 meters.

Table D-10. Summary of Modeling Results for Facilities A-54, A-73, A-84, A-87, and A-88

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Maximum 1-hour Conc. (acute) [μg/m³]	Maximum 1-hour Conc. (annualized) [μg/m³]	Maximum Annual Avg. Conc. [μg/m³]	Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]				Resident	Worker	Acute	Chronic
A-54[3]	Near-Source	20	17	1207 to 1746	62.7 to 90.7	1.517 to 2.195	8.9 to 12.96	4.3 to 6.2	0.0604 to 0.087	0.0434 to 0.0628
	MEIW[4]	18	15	>1207 to >1746	>62.7 to >90.7	>1.517 to >2.195	>8.9 to >12.96	>4.3 to >6.2	>0.0604 to >0.087	>0.0434 to >0.0628
	MEIR	41	38	611.8 to 885	25.93 to 37.53	0.6280 to 0.9089	3.71 to 5.36	1.76 to 2.55	0.0306 to 0.0443	0.0179 to 0.0260
A-73[3]	Near-Source	20	15	600.5 to 692.9	112.7 to 130	2.408 to 2.778	14.21 to 16.39	7.66 to 8.84	0.0300 to 0.0346	0.0688 to 0.0794
	MEIW	20	15	600.5 to 692.9	112.7 to 130	2.408 to 2.778	14.21 to 16.39	7.66 to 8.84	0.0300 to 0.0346	0.0688 to 0.0794
	MEIR	327	322	18.24 to 21.05	1.736 to 2.003	0.0371 to 0.0428	0.22 to 0.25	0.12 to 0.14	0.0009 to 0.0011	0.0011 to 0.0012
A-84[3]	Near-Source	20	15	1642	115.5	3.894	22.98	7.85	0.0821	0.1113
	MEIW	14	9	>1642	>115.5	>3.894	>22.98	>7.85	>0.0821	>0.1113
	MEIR	43	38	889.2	50.3	1.696	10.01	3.42	0.0445	0.0485
A-87[3]	Near-Source	20	5	174.1 to 287.3	89.58 to 147.5	1.9143 to 3.1521	11.29 to 18.60	6.09 to 10.03	0.0087 to 0.0144	0.0547 to 0.0901
	MEIW	61	46	82.78 to 136.6	30.8 to 50.73	0.6582 to 1.084	3.88 to 6.40	2.09 to 3.45	0.0041 to 0.0068	0.0188 to 0.0310
	MEIR	167	152	25.02 to 41.29	7.122 to 11.73	0.1522 to 0.2507	0.90 to 1.48	0.48 to 0.80	0.0013 to 0.0021	0.0043 to 0.0072
A-88[3]	Near-Source	20	12	1444 to 3611	63.65 to 158.4	1.511 to 3.761	8.92 to 22.19	4.33 to 10.77	0.0722 to 0.1806	0.0432 to 0.1075
	MEIW	31	23	1089 to 2725	42.43 to 105.6	1.008 to 2.507	5.94 to 14.79	2.88 to 7.18	0.0545 to 0.1363	0.0288 to 0.0716
	MEIR	20	12	1444 to 3611	63.65 to 158.4	1.511 to 3.761	8.92 to 22.19	4.33 to 10.77	0.0722 to 0.1806	0.0432 to 0.1075

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the building exterior (envelope).
3. These facilities use a Perc-containing brake cleaner which shows a Perc content range on the Material Safety Data Sheet; therefore, a range is presented for the results.
4. The receptor is located closer than 20 meters to the center of the volume source, which is the minimum distance modeled; therefore, the potential health impacts are likely to be greater than those listed here. However, we do not anticipate that the potential health impacts will be significant. The impacts shown here are at the near-source location of 20 meters.

Table D-11. Summary of Modeling Results for Facilities A-89, A-90, A-93, and A-94

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Maximum 1-hour Conc. (acute) [μg/m³]	Maximum 1-hour Conc. (annualized) [μg/m³]	Maximum Annual Avg. Conc. [μg/m³]	Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]				Resident	Worker	Acute	Chronic
A-89[3]	Near-Source	20	12	116.2 to 169	32.66 to 46.89	0.7755 to 1.113	4.58 to 6.57	2.22 to 3.19	0.0058 to 0.0085	0.0222 to 0.0318
	MEIW	32	24	82.48 to 119.9	20.18 to 28.98	0.4792 to 0.6881	2.83 to 4.06	1.37 to 1.97	0.0041 to 0.0060	0.0137 to 0.0197
	MEIR	84	76	28.28 to 41.12	5.309 to 7.623	0.1261 to 0.1810	0.74 to 1.07	0.36 to 0.52	0.0014 to 0.0021	0.0036 to 0.0052
A-90[3]	Near-Source	20	16	3218 to 4652	44.91 to 64.62	1.024 to 1.473	6.04 to 8.69	3.1 to 4.4	0.1609 to 0.2326	0.0292 to 0.0421
	MEIW[4]	19	15	>3218 to >4652	>44.91 to >64.62	>1.024 to >1.473	>6.04 to >8.69	>3.1 to >4.4	>0.1609 to >0.2326	>0.0292 to >0.0421
	MEIR[4]	18	14	>3218 to >4652	>44.91 to >64.62	>1.024 to >1.473	>6.04 to >8.69	>3.1 to >4.4	>0.1609 to >0.2326	>0.0292 to >0.0421
A-93[3]	Near-Source	20	11	1035 to 1497	66.51 to 96.74	1.737 to 2.527	10.3 to 14.9	4.5 to 6.6	0.0518 to 0.0749	0.0496 to 0.0722
	MEIW	39	30	632.2 to 914.2	33.38 to 48.55	0.8718 to 1.268	5.14 to 7.48	2.27 to 3.30	0.0316 to 0.0457	0.0249 to 0.0362
	MEIR[4]	17	8	>1035 to >1497	>66.51 to >96.74	>1.737 to >2.527	>10.3 to >14.9	>4.5 to >6.6	>0.0518 to >0.0749	>0.0496 to >0.0722
A-94[3]	Near-Source	20	16	538 to 779	15.87 to 23.28	0.339 to 0.498	2.00 to 2.94	1.1 to 1.6	0.0269 to 0.0390	0.0097 to 0.0142
	MEIW[4]	13	9	>538 to >779	>15.87 to >23.28	>0.339 to >0.498	>2.00 to >2.94	>1.1 to >1.6	>0.0269 to >0.0390	>0.0097 to >0.0142
	MEIR	27	23	420 to 608.9	11.4 to 16.72	0.2436 to 0.3573	1.44 to 2.11	0.78 to 1.14	0.0210 to 0.0304	0.0070 to 0.0102

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the building exterior (envelope).
3. These facilities use a Perc-containing brake cleaner which shows a Perc content range on the Material Safety Data Sheet; therefore, a range is presented for the results.
4. The receptor is located closer than 20 meters to the center of the volume source, which is the minimum distance modeled; therefore, the potential health impacts are likely to be greater than those listed here. However, we do not anticipate that the potential health impacts will be significant. The impacts shown here are at the near-source location of 20 meters.

B. Multicomponent-Using Facilities Modeled with SCREEN3

This section summarizes the results from our modeling for the 12 facilities that used products that contained either Perc (P), MeCl (M), or TCE (T) or some combination of the three. Tables D-12 and D-13 present the modeling input parameters and tables D-14 thru D-16 summarize the results.

Table D-12. Modeling Input Parameters for Facilities D, G, M, S, A-20, and A-39

Parameter	Value					
	Facility D	Facility G[1]		Facility M	Facility S	Facility A-20	Facility A-39
Source Type	Volume	Volume		Volume	Volume	Volume	Volume
Facility Type	Srvc. Sta.	Fleet		Dealership	Brake Shop	Gen Auto	Gen Auto
Chlorinated Content [%]	P:55, M:25	P:55, M:25		P:55, M:25	P:55, M:25	P:85, T:10	P:55, M:43
Perc Emission Rate - Ann. [grams/s]	0.0096	0.0408		0.0408	0.0062	0.0146	0.0101
Perc Emission Rate - Acute [grams/s]	0.0859	0.0408		0.1334	0.0124	0.0446	0.0303
MeCl Emission Rate - Ann. [grams/s]	0.0044	0.0185		0.0185	0.0028	N/A	0.0079
MeCl Emission Rate - Acute [grams/s]	0.0394	0.0185		0.0605	0.0056	N/A	0.0237
TCE Emission Rate - Ann. [grams/s]	N/A	N/A		N/A	N/A	0.0017	N/A
TCE Emission Rate - Acute [grams/s]	N/A	N/A		N/A	N/A	0.0052	N/A
Receptor Height [m]	0	0		0	0	0	0
Source Release Height [m]	2.286	1.829	3.658	2.591	2.743	2.438	4.572
Initial Lateral Dimension of Volume [m]	3.246	2.761	10.07	5.316	2.835	1.772	4.962
Initial Vertical Dimension of Volume [m]	2.127	1.701	2.127	2.410	2.552	2.268	4.253
Met Option - Annual/Acute	Full	Full		Full	Full	Class 4/Full	Class 4/Full
Land Type (Urban or Rural)	Urban	Urban		Urban	Urban	Urban	Urban
Operating Schedule [hrs/wk]	54	42.5		42.5	50	55	60

1. Due to the relationship between the exterior building dimensions to the location of the actual service area, two SCREEN3 runs were completed. The data in the left-hand column is used to calculate the non-cancer acute hazard index and the data in the right-hand column is used to calculate overall cancer risk and chronic non-cancer hazard index.

Table D-13. Modeling Input Parameters for Facilities A-49, A-63, A-71, A-72, A-82, and A-85

Parameter	Value					
	Facility A-49	**Facility A-63**	**Facility A-71**	**Facility A-72**	**Facility A-82**	**Facility A-85**
Source Type	Volume	Volume	Volume	Volume	Volume	Volume
Facility Type	General Automotive	General Automotive	General Automotive	General Automotive	General Automotive	General Automotive
Chlorinated Content [%]	P:55, M:25	P:55, M:25	P:55, M:25	P:55, M:25	P:98, M:0.5	P:98, M:0.5
Perc Emission Rate - Ann. [grams/s]	0.0091	0.0010	0.0010	0.0027	0.0144	0.0283
Perc Emission Rate - Acute [grams/s]	0.0867	0.0434	0.0434	0.1198	0.0417	0.1388
MeCl Emission Rate - Ann. [grams/s]	0.0042	0.0005	0.0004	0.0012	0.0001	0.0001
MeCl Emission Rate - Acute [grams/s]	0.0394	0.0197	0.0197	0.0544	0.0002	0.0007
TCE Emission Rate - Ann. [grams/s]	N/A	N/A	N/A	N/A	N/A	N/A
TCE Emission Rate - Acute [grams/s]	N/A	N/A	N/A	N/A	N/A	N/A
Receptor Height [m]	0	0	0	0	0	0
Source Release Height [m]	2.286	3.810	2.438	2.743	3.048	2.591
Initial Lateral Dimension of Volume [m]	3.544	2.127	1.914	3.544	2.481	1.772
Initial Vertical Dimension of Volume [m]	2.127	3.544	2.268	2.552	2.835	2.410
Met Option - Annual	Class 4	Class 4	Class 4	Class 4	Class 4	Class 4
Met Option - Acute	Full	Full	Full	Full	Full	Full
Land Type (Urban or Rural)	Urban	Urban	Urban	Urban	Urban	Urban
Operating Schedule [hrs/wk]	47.5	42.5	45	45	58	49

Table D-14. Summary of Modeling Results for Facilities D, G, M, and S

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]	Resident	Worker	Acute	Chronic
D	Near-Source	25	2	17.77	7.99	0.0807	0.0831
	MEIW	55	32	8.31	3.73	0.0375	0.0388
	MEIR	175	152	1.63	0.73	0.0074	0.0076
G	Near-Source	25	3	21.54	12.30	0.0421	0.1007
	MEIW	50	28	15.26	8.71	0.0201	0.0713
	MEIR	420	398	1.15	0.66	0.0008	0.0054
M	Near-Source	20	9	45.66	26.07	0.0960	0.2135
	MEIW	26	15	39.50	22.55	0.0831	0.1847
	MEIR	31	20	35.01	19.99	0.0736	0.1637
S	Near-Source	20	14	11.76	5.71	0.0128	0.0550
	MEIW	47	41	5.73	2.78	0.0062	0.0268
	MEIR	466	460	0.20	0.10	0.0002	0.0009

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the building exterior (envelope).

Table D-15. Summary of Modeling Results for Facilities A-20, A-39, A-49, and A-63

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]	Resident	Worker	Acute	Chronic
A-20	Near-Source	20	16	26.58	11.73	0.0386	0.1245
	MEIW	53	49	7.42	3.27	0.0141	0.0348
	MEIR	50	46	8.10	3.57	0.0152	0.0380
A-39	Near-Source	20	9	9.73	3.94	0.0086	0.0389
	MEIW	34	23	6.52	2.63	0.0066	0.0261
	MEIR	57	46	3.80	1.54	0.0045	0.0152
A-49	Near-Source	20	12	11.33	5.79	0.0899	0.0529
	MEIW[3]	14	6	>11.33	>5.79	>0.0899	>0.0529
	MEIR	38	30	5.60	2.86	0.0539	0.0262
A-63	Near-Source	20	15	1.03	0.59	0.0395	0.0048
	MEIW[3]	8	3	>1.03	>0.59	>0.0395	>0.0048
	MEIR	2419	2414	<0.01	<0.01	<0.0001	<0.0001

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the building exterior (envelope).
3. The receptor is located closer than 20 meters to the center of the volume source, which is the minimum distance modeled; therefore, the potential health impacts are likely to be greater than those listed here. However, we do not anticipate that the potential health impacts will be significant. The impacts shown here are at the near-source location of 20 meters.

Table D-16. Summary of Modeling Results for Facilities A-71, A-72, A-82, and A-85

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]	Resident	Worker	Acute	Chronic
A-71	Near-Source	20	16	1.45	0.78	0.0598	0.0068
	MEIW[3]	19	15	>1.45	>0.78	>0.0598	>0.0068
	MEIR	34	30	0.77	0.42	0.0371	0.0036
A-72	Near-Source	20	12	2.85	1.54	0.1080	0.0133
	MEIW	29	21	2.03	1.10	0.0842	0.0095
	MEIR	61	53	0.77	0.42	0.0407	0.0036
A-82	Near-Source	20	15	20.30	8.49	0.0276	0.0983
	MEIW	42	37	8.90	3.72	0.0150	0.0431
	MEIR	42	37	8.90	3.72	0.0150	0.0431
A-85	Near-Source	20	16	42.60	21.09	0.1231	0.2062
	MEIW[3]	12	8	>42.60	>21.09	>0.1231	>0.2062
	MEIR	34	30	22.74	11.26	0.0765	0.1101

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the building exterior (envelope).
3. The receptor is located closer than 20 meters to the center of the volume source, which is the minimum distance modeled; therefore, the potential health impacts are likely to be greater than those listed here. However, we do not anticipate that the potential health impacts will be significant. The impacts shown here are at the near-source location of 20 meters.

C. Perchloroethylene-Using Facilities Modeled with ISCST3

This section summarizes the results from our modeling of the 13 facilities that used Perc-containing brake cleaning products which did not contain either MeCl or TCE using regional-specific meteorological (met) data and ISCST3. Tables D-17 thru D-19 present the modeling input parameters and tables D-20 thru D-22 summarize the modeling results.

Table D-17. ISCST3 Modeling Parameters - 13 Specific Facilities[1]

Facility	Facility Type	Emission Rate [g/s]		Perc Content [%]	Release Height [m]	Approx. Length [m]	Approx. Width [m]	Approx. Height [m]	Dispersion Coefficient	Number of L x L Volumes
		Acute	Annual							
A-07	Gen Auto	0.0973 to 0.1407	0.0201 to 0.0291	65 to 94	2.3	30.5	10.7	4.6	Urban	3
A-08	Gen Auto	0.0487 to 0.0704	0.0330 to 0.0477	65 to 94	2.3	22.9	9.1	4.6	Urban	3
A-09	Gen Auto	0.0604 to 0.0874	0.0594 to 0.0859	65 to 94	3.8	21.3	13.7	7.6	Urban	2
A-28	Fleet	0.0608 to 0.0880	0.0080 to 0.0115	65 to 94	4.5	15.2	15.2	9.1	Urban	1
A-52	Gen Auto	0.1701 to 0.1871	0.0167 to 0.0183	90 to 99	2.3	15.2	7.6	4.6	Urban	2
A-83	Gen Auto	0.0389 to 0.0563	0.0220 to 0.0319	65 to 94	3.0	24.4	9.1	6.1	Urban	3
A-86	Dealership	0.0747 to 0.1232	0.0367 to 0.0606	60 to 99	5.0	53.3	33.5	10.0	Urban	2
A-92	Svc Sta	0.0973 to 0.1407	0.0062 to 0.0090	65 to 94	2.6	15.2	7.6	5.2	Urban	2
I	Fleet	0.1817 to 0.2633	0.0236 to 0.0342	65 to 94	4.7	62.8	22.3	9.5	Urban	3
O	Gen Auto	0.1946 to 0.2815	0.0087 to 0.0125	65 to 94	3.0	18.3	15.2	6.1	Urban	1
P	Brake Shop	0.0182 to 0.0263	0.0043 to 0.0061	65 to 94	3.0	18.3	10.7	6.1	Urban	2
T	Gen Auto	0.0374	0.0166	99	3.0	21.3	9.1	6.1	Urban	2
U	Gen Auto	0.0389 to 0.0562	0.0097 to 0.0141	65 to 94	3.0	18.3	9.1	6.1	Urban	2

1. All facilities modeled as a volume source with receptor height set to zero. All facilities, except Facility T, use a Perc-containing brake cleaner which shows a Perc content range on the Material Safety Data Sheet; therefore, a range is presented for the results

Table D-18. ISCST3 Modeling Parameters - 13 Specific Facilities (cont.)

Facility	Operating Schedule [hrs/wk]	Open Hours	Open Days	Meteorology Data Set
A-07	58	8:00 am - 6:00 pm 8:00 am - 4:00 pm	Mon - Fri Sat	Oakland 1960-64
A-08	59	8:00 am - 6:00 pm 8:00 am - 5:00 pm	Mon - Fri Sat	Oakland 1960-64
A-09	59	8:00 am - 6:00 pm 8:00 am - 5:00 pm	Mon - Fri Sat	Oakland 1960-64
A-28	122.5	5:00 am - 10:30 pm	Mon - Sun	McClellan AFB 1953-57
A-52	51	8:00 am - 5:00 pm 8:00 am - 2:00 pm	Mon - Fri Sat	LAX 1985-89
A-83	53	8:00 am - 6:00 pm 8:00 am - 4:00 pm	Mon - Fri Sat	Redding 1987-89
A-86	60	7:00 am - 6:00 pm 9:00 am - 2:00 pm	Mon - Fri Sat	Fresno 1985-89
A-92	47	7:30 am - 4:00 pm 7:30 am - 12:00 pm	Mon - Fri Sat	Fresno 1985-89
I	92.5	6:30 am - 1:00 am	Mon - Fri	Sac Exec 1987, 1989-92
O	45	9:00 am - 6:00 pm	Mon - Fri	Concord 1991-96
P	60	8:00 am - 6:00 pm	Mon - Sat	Mather AFB 1953-57
T	56.5	8:00 am - 5:30 pm 8:00 am - 5:00 pm	Mon - Fri Sat	Burbank 1958-62
U	60	8:00 am - 6:00 pm	Mon - Sat	Anaheim 1981

Table D-19. ISCST3 Modeling Parameters - 13 Specific Facilities (cont.)

ISCST3 Receptor Networks Used			
Grid Name (Type)	**Cell Size**	**Number of Cells**	**Location**
COARSE (Cartesian)	1000 m x 1000 m	31 x 31 = 961	Centered on Source Centroid
FINE (Cartesian)	100 m x 100 m	31 x 31 = 961	Centered on Source Centroid
VFINE (Cartesian)	20 m x 20 m	26 x 26 = 676	Centered on Source Centroid

Table D-20. Detailed Listing of ISCST3 Modeling Results - 13 Specific Facilities

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Approximate Direction From Facility [Deg][3]	Maximum Annual Concentration [μg/m³]	Maximum Hourly Concentration [μg/m³]	Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]				Resident	Worker	Acute	Chronic
A-07[4]	Near-Source	32	27	108	2.271 to 3.288	489.1 to 707.3	13.4 to 19.4	5.61 to 8.12	0.0245 to 0.0354	0.0649 to 0.0940
	MEIW	51	46	79	0.945 to 1.368	191.1 to 276.3	5.57 to 8.07	2.33 to 3.38	0.0096 to 0.0138	0.0270 to 0.0391
	MEIR	32	27	108	2.271 to 3.288	310.9 to 449.7	13.4 to 19.4	5.61 to 8.12	0.0155 to 0.0225	0.0649 to 0.0940
A-08[4]	Near-Source	32	27	108	4.851 to 7.012	272.6 to 394.0	28.62 to 41.37	11.77 to 17.01	0.0136 to 0.0197	0.1386 to 0.2003
	MEIW	32	27	132	3.234 to 4.675	264.4 to 382.3	19.08 to 27.58	7.85 to 11.34	0.0132 to 0.0191	0.0924 to 0.1336
	MEIR	32	27	0	1.320 to 1.908	149.8 to 216.6	7.79 to 11.26	3.20 to 4.63	0.0075 to 0.0108	0.0377 to 0.0545
A-09[4]	Near-Source	32	25	108	7.009 to 10.14	207.9 to 300.8	41.35 to 59.80	17.01 to 24.59	0.0104 to 0.0150	0.2003 to 0.2896
	MEIW	32	25	0	1.901 to 2.749	140.9 to 203.9	11.21 to 16.22	4.61 to 6.67	0.0070 to 0.0102	0.0543 to 0.0785
	MEIR	32	25	108	7.009 to 10.14	186.6 to 270.0	41.35 to 59.80	17.01 to 24.59	0.0093 to 0.0135	0.2003 to 0.2896
A-28[4]	Near-Source	32	24	342	2.075 to 3.002	326.5 to 472.6	12.24 to 17.71	2.42 to 3.51	0.0163 to 0.0236	0.0593 to 0.0858
	MEIW	130	122	0	0.254 to 0.368	74.72 to 108.2	1.50 to 2.17	0.30 to 0.43	0.0037 to 0.0054	0.0073 to 0.0105
	MEIR	91	83	174	0.159 to 0.230	122.8 to 177.7	0.94 to 1.36	0.19 to 0.27	0.0061 to 0.0089	0.0045 to 0.0066
A-52[4]	Near-Source	32	28	72 to 108	1.670 to 1.830	866.8 to 953.5	9.85 to 10.80	4.69 to 5.14	0.0433 to 0.0477	0.0477 to 0.0523
	MEIW	32	28	108	1.603 to 1.757	477.8 to 525.6	9.46 to 10.37	4.50 to 4.93	0.0239 to 0.0263	0.0458 to 0.0502
	MEIR	46	42	311	0.468 to 0.512	697.1 to 766.7	2.76 to 3.02	1.31 to 1.44	0.0349 to 0.0383	0.0134 to 0.0146

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the short side of the building exterior (envelope).
3. For near-source, not applicable for acute values.
4. These facilities use a Perc-containing brake cleaner which shows a Perc content range on the Material Safety Data Sheet; therefore, a range is presented for the results.

Table D-21. Summary of ISCST3 Modeling Results - 13 Specific Facilities (cont.)

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Approximate direction From Facility [Deg]	Maximum Annual Concentration [μg/m³]	Maximum Hourly Concentration [μg/m³]	Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]				Resident	Worker	Acute	Chronic
A-83[4]	Near-Source	32	27	162	2.090 to 3.031	247.6 to 358.3	12.33 to 17.88	5.65 to 8.19	0.0124 to 0.0179	0.0597 to 0.0866
	MEIW	32	27	342	1.584 to 2.297	138.1 to 199.9	9.35 to 13.55	4.28 to 6.20	0.0069 to 0.0100	0.0453 to 0.0656
	MEIR	35	30	180	1.650 to 2.393	154.5 to 223.6	9.74 to 14.12	4.46 to 6.46	0.0077 to 0.0112	0.0471 to 0.0684
A-86[4]	Near-Source	51	34	101 - 135	1.358 to 2.242	119.1 to 196.4	8.01 to 13.23	3.19 to 5.26	0.0060 to 0.0098	0.0388 to 0.0641
	MEIW	168	151	287	0.147 to 0.242	44.60 to 73.55	0.87 to 1.43	0.34 to 0.57	0.0022 to 0.0037	0.0042 to 0.0069
	MEIR	158	141	108	0.220 to 0.364	31.75 to 52.36	1.30 to 2.15	0.52 to 0.85	0.0016 to 0.0026	0.0063 to 0.0104
A-92[4]	Near-Source	32	28	108	0.546 to 0.792	582.8 to 842.8	3.22 to 4.67	1.66 to 2.41	0.0291 to 0.0421	0.0156 to 0.0226
	MEIW	32	28	288	0.452 to 0.657	574.4 to 830.6	2.67 to 3.88	1.38 to 2.00	0.0287 to 0.0415	0.0129 to 0.0188
	MEIR	58	54	229	0.056 to 0.081	175.9 to 254.4	0.33 to 0.48	0.17 to 0.25	0.0088 to 0.0127	0.0016 to 0.0023
I[4]	Near-Source	51	40	349 - 11	1.864 to 2.702	405.4 to 587.5	11.00 to 15.94	2.89 to 4.18	0.0203 to 0.0294	0.0533 to 0.0772
	MEIW	95	84	18	0.708 to 1.026	174.5 to 252.8	4.18 to 6.05	1.10 to 1.59	0.0087 to 0.0126	0.0202 to 0.0293
	MEIR	157	146	27	0.307 to 0.445	120.8 to 175.1	1.81 to 2.62	0.47 to 0.69	0.0060 to 0.0088	0.0088 to 0.0127
O[4]	Near-Source	32	24	162	0.770 to 1.113	1428 to 2065	4.54 to 6.57	2.45 to 3.54	0.0714 to 0.1032	0.0220 to 0.0318
	MEIW	32	24	180	0.709 to 1.026	1413 to 2043	4.18 to 6.05	2.26 to 3.26	0.0706 to 0.1021	0.0203 to 0.0293
	MEIR	100	92	270	0.009 to 0.013	416.3 to 602.1	0.05 to 0.07	0.03 to 0.04	0.0208 to 0.0301	0.0002 to 0.0004

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the short side of the building exterior (envelope).
3. For near-source, not applicable for acute values.
4. These facilities use a Perc-containing brake cleaner which shows a Perc content range on the Material Safety Data Sheet; therefore, a range is presented for the results.

Table D-22. Summary of ISCST3 Modeling Results - 13 Specific Facilities (cont.)

FACILITY	RECEPTOR TYPE	Receptor Distance [meters]		Approximate direction From Facility [Deg]	Maximum Annual Concentration [μg/m^3]	Maximum Hourly Concentration [μg/m^3]	Potential Cancer Risk [chances per million]		Hazard Index	
		Center[1]	Env.[2]				Resident	Worker	Acute	Chronic
P[4]	Near-Source	32	27	342 - 72	0.387 to 0.559	59.83 to 86.43	2.28 to 3.30	0.92 to 1.33	0.0030 to 0.0043	0.0111 to 0.0160
	MEIW	32	27	0	0.298 to 0.430	39.65 to 57.29	1.76 to 2.54	0.71 to 1.03	0.0020 to 0.0029	0.0085 to 0.0123
	MEIR	42	37	225	0.034 to 0.049	46.15 to 66.67	0.20 to 0.29	0.08 to 0.12	0.0023 to 0.0033	0.0010 to 0.0014
T[4]	Near-Source	32	27	288 - 342	2.517	218.6	14.85	6.38	0.0109	0.0719
	MEIW	32	27	0	2.236	117.8	13.19	5.66	0.0059	0.0639
	MEIR	32	27	0	2.236	117.8	13.19	5.66	0.0059	0.0639
U[4]	Near-Source	32	27	72	3.279 to 4.738	237.8 to 343.7	19.35 to 27.96	7.82 to 11.31	0.0108 to 0.0156	0.0937 to 0.1354
	MEIW	32	27	342	1.207 to 1.743	134.4 to 194.2	7.12 to 10.29	2.88 to 4.16	0.0067 to 0.0097	0.0345 to 0.0498
	MEIR	32	27	72	3.279 to 4.738	179.0 to 258.7	19.35 to 27.96	7.82 to 11.31	0.0090 to 0.0129	0.0937 to 0.1354

1. Distance to receptor measured from the center of the volume source.
2. Distance to receptor measured from the short side of the building exterior (envelope).
3. For near-source, not applicable for acute values.
4. These facilities use a Perc-containing brake cleaner which shows a Perc content range on the Material Safety Data Sheet; therefore, a range is presented for the results.

D. Generic Facilities

This section summarizes the input parameters and results for the three generic facilities that were developed. All generic facility modeling were done using ISCST3 and consider Perc, MeCl, and TCE usage from brake cleaning products, carburetor cleaners, engine degreasers, and general degreasers. Tables D-23 thru D-26 present the modeling input parameters. The modeling results are summarized on pages D-25 thru D-204. For more information on how the generic facilities were developed, please see Appendix F.

Table D-23. ISCST3 Modeling Parameters - 3 Generic Facilities

Facility	Applicable Facility Types	Release Height [m]	Approx. Length [m]	Approx. Width [m]	Approx. Height [m]	Number of L x L Volumes
G-01	General Automotive, Brake Shop, Service Station, Dealership	2.5	12.2	7.6	4.9	2
G-02	General Automotive, Brake Shop, Service Station., Dealership, Fleet	3.8	21.3	13.7	7.6	2
G-03	General Automotive, Dealership, Fleet	3.8	62.5	21.3	7.6	3

Table D-24. ISCST3 Modeling Parameters - 3 Generic Facilities (cont.)

Facility	Operating Schedule [hrs/wk]	Open Hours	Open Days	Meteorology Data Sets
G-01 G-02 G-03	57	8:00 am - 5:00 pm 8:00 am - 2:00 pm	Mon - Fri Sat	Oakland 1960-64 McClellan AFB 1953-57 LAX 1985-89 Redding 1987-89 Fresno 1985-89 Sac Exec 1987, 1989-92 Concord 1991-96 Mather AFB 1953-57 Burbank 1958-62 Anaheim 1981

Table D-25. ISCST3 Modeling Parameters - 3 Generic Facilities (cont.)

Facility	Base Emission Rates [g/s][1]			
	Acute (65%)	Annualized (65%)	Acute (94%)	Annualized (94%)
G-01	0.0973	0.0341	0.1407	0.0494
G-02	0.1946	0.1024	0.2815	0.1481
G-03	0.1946	0.1024	0.2815	0.1481

1. The model is run using a unit emission rate of 1 gram per second. Calculation of base emission rates at 65% and 94% chlorinated content (by weight) simplifies the consideration of the variety of modeling scenarios summarized on pages D-25 through D-204.

Table D-26. ISCST3 Modeling Parameters - General Assumptions

General Assumptions

In conducting the ISCST3 modeling for the generic facilities, the following general assumptions were used:

- All facilities modeled as volume sources.
- Dispersion coefficient set to URBAN, receptor height set to ZERO
- Twenty brake jobs per week (1040 per year) for facility G-01, 60 per week (3120 per year) for facility G-02 and G-03. This estimate is based on data collected from the Brake Cleaner and Perc-Containing Automotive Products (Manufacturers) Survey, the Automotive Service Facility Questionnaire (Facility Survey), and facility site visits (see Appendix B) and is designed such that product usage on other activities is automatically included (see Appendix F).
- One 19-oz can (539 grams) at 65% and 94% component content per brake job, which is the average chlorinated can size and usage rate supported by the site visits, the Facility Survey, and the Norton Study.
- Facility operating schedule of 2964 hours per year (57 hours per week), which is the average operating schedule reported during the site visits.
- No more than one brake job per hour for facility G-01; no more than 2 brake jobs per hour for facilities G-02 and G-03. Based on the operating hours at a facility, the estimated number of service bays, and the reported jobs per week, multiple brake jobs can occur simultaneously at the G-02 and G-03 facilities. This estimate affects acute health impacts.
- Polar receptor network, centered on source centroid, with 2160 receptors (polar network consists of 60 radials separated by angular distances of 6 degrees and having receptors at the following radial distances: 20, 30, 40, 50, 60, 70, 80, 90, 100, 120, 140, 150, 160, 180, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10000, and 23000 meters).

The generic facilities considered a number of scenarios. Table D-27 summarizes the modeling scenarios that were considered under generic facility modeling.

Table D-27. Representative Product Formulations Used in Generic Facility Modeling

Product Category			
Brake Cleaners	**Carburetor Cleaners**	**Engine Degreasers**	**General Degreasers**
All met locations: ➜ 94% Perc ➜ 65% Perc Four met locations[1]: ➜ 55% Perc, 25% MeCl ➜ 40% Perc, 30% MeCl, 20% TCE ➜ 55% Perc, 43% TCE	Single composite based on[2]: ➜ 68% Perc ➜ 57% MeCl	Single composite based on[2]: ➜ 47% Perc ➜ 99% TCE	Single composite based on[2]: ➜ 24% Perc ➜ 10% Perc, 86% TCE ➜ 51% MeCl ➜ 98% TCE

1. Burbank, Anaheim, Oakland and default met for chronic effects; Fresno, Concord, Mather, and default met for acute effects.
2. Composite is based on average of 10 met sets. Default met is considered independently.

For more information on how composite formulations were derived, please see Appendix F.

Due to the volume of data, the multicomponent products were calculated for the met data sets that gave the lowest, mid-range, and highest potential health impacts for acute and chronic emissions. For chronic emissions (cancer and chronic impacts), the met data sets presented are Oakland (low), Burbank (mid-range), and Anaheim (high). For acute emissions, the met data sets presented are Mather (low), Fresno (mid-range), and Concord (high). Additionally, default meteorology was considered for each of the multicomponent scenarios and composite formulations. Any representative formulation listed within this Appendix does not necessarily represent a specific product from a specific manufacturer. Generic facility modeling results are summarized on pages D-25 through D-204.

Risk Assessment Summary - 3 Generic Facilities
Brake Cleaners

Facility G-01 - 65% Perc

Met Set: Burbank

op hrs/wk: 57 | Acu Rate [g/s]: 0.0973 | Ann Rate [g/s]: 0.0341

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	162.66	32.73	13.93	0.1585	12417.79	0.0604
30	86.38	17.38	7.40	0.0842	9254.67	0.0450
40	53.51	10.77	4.58	0.0521	7114.91	0.0346
50	36.43	7.33	3.12	0.0355	5625.45	0.0274
60	26.41	5.31	2.26	0.0257	4555.43	0.0222
80	15.71	3.16	1.35	0.0153	3163.52	0.0154
100	10.41	2.09	0.89	0.0101	2329.1	0.0113
150	4.86	0.98	0.42	0.0047	1281.78	0.0062
200	2.81	0.57	0.24	0.0027	820.22	0.0040
250	1.83	0.37	0.16	0.0018	575.61	0.0028
500	0.48	0.10	0.04	0.0005	189.47	0.0009
1000	0.12	0.02	0.01	0.0001	64.58	0.0003

Met Set: Concord

op hrs/wk: 57 | Acu Rate [g/s]: 0.0973 | Ann Rate [g/s]: 0.0341

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	32.51	13.84	0.1574	12417.79	0.0604
30	86.18	17.34	7.38	0.0840	9254.67	0.0450
40	53.59	10.78	4.59	0.0522	7114.91	0.0346
50	36.58	7.36	3.13	0.0356	5625.45	0.0274
60	26.58	5.35	2.28	0.0259	4555.43	0.0222
80	15.87	3.19	1.36	0.0155	3163.52	0.0154
100	10.55	2.12	0.90	0.0103	2329.1	0.0113
150	4.95	1.00	0.42	0.0048	1281.78	0.0062
200	2.86	0.58	0.24	0.0028	820.22	0.0040
250	1.87	0.38	0.16	0.0018	575.61	0.0028
500	0.49	0.10	0.04	0.0005	189.47	0.0009
1000	0.14	0.03	0.01	0.0001	64.58	0.0003

Met Set: Fresno

op hrs/wk: 57 | Acu Rate [g/s]: 0.0973 | Ann Rate [g/s]: 0.0341

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	130.29	26.21	11.16	0.1269	11155.5	0.0543
30	68.87	13.86	5.90	0.0671	8402.65	0.0409
40	42.46	8.54	3.64	0.0414	6521.95	0.0317
50	28.78	5.79	2.46	0.0280	5186.31	0.0252
60	20.79	4.18	1.78	0.0203	4214.74	0.0205
80	12.29	2.47	1.05	0.0120	2937.5	0.0143
100	8.11	1.63	0.69	0.0079	2165.55	0.0105
150	3.76	0.76	0.32	0.0037	1191.61	0.0058
200	2.16	0.43	0.18	0.0021	761.38	0.0037
250	1.40	0.28	0.12	0.0014	533.41	0.0026
500	0.36	0.07	0.03	0.0004	174.25	0.0008
1000	0.09	0.02	0.01	0.0001	58.67	0.0003

Met Set: LAX

op hrs/wk: 57 | Acu Rate [g/s]: 0.0973 | Ann Rate [g/s]: 0.0341

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	94.40	18.99	8.08	0.0920	8382.67	0.0408
30	50.61	10.18	4.33	0.0493	5996.68	0.0292
40	31.53	6.34	2.70	0.0307	4610.19	0.0224
50	21.53	4.33	1.84	0.0210	3645.08	0.0177
60	15.65	3.15	1.34	0.0152	2951.75	0.0144
80	9.34	1.88	0.80	0.0091	2049.84	0.0100
100	6.20	1.25	0.53	0.0060	1509.17	0.0073
150	2.91	0.59	0.25	0.0028	953.49	0.0046
200	1.68	0.34	0.14	0.0016	744.04	0.0036
250	1.10	0.22	0.09	0.0011	611.79	0.0030
500	0.29	0.06	0.02	0.0003	331.07	0.0016
1000	0.08	0.02	0.01	0.0001	181.35	0.0009

Facility G-01 - 65% Perc
(cont.)

Met Set: McClellan

op hrs/wk: 57 | Acu Rate [g/s]: 0.0973 | Ann Rate [g/s]: 0.0341

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	101.05	20.33	8.65	0.0985	11007.62	0.0536
30	53.37	10.74	4.57	0.0520	8490.17	0.0413
40	32.93	6.63	2.82	0.0321	6665.94	0.0324
50	22.34	4.49	1.91	0.0218	5343.61	0.0260
60	16.15	3.25	1.38	0.0157	4368.46	0.0213
80	9.57	1.93	0.82	0.0093	3069.77	0.0149
100	6.32	1.27	0.54	0.0062	2275.44	0.0111
150	2.93	0.59	0.25	0.0029	1262.34	0.0061
200	1.69	0.34	0.14	0.0016	810.41	0.0039
250	1.09	0.22	0.09	0.0011	569.61	0.0028
500	0.28	0.06	0.02	0.0003	187.81	0.0009
1000	0.07	0.01	0.01	0.0001	63.95	0.0003

Met Set: Mather

op hrs/wk: 57 | Acu Rate [g/s]: 0.0973 | Ann Rate [g/s]: 0.0341

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	96.52	19.42	8.27	0.0940	8470.5	0.0412
30	50.95	10.25	4.36	0.0496	5762.29	0.0280
40	31.40	6.32	2.69	0.0306	4464.6	0.0217
50	21.29	4.28	1.82	0.0207	3545.55	0.0172
60	15.38	3.09	1.32	0.0150	2878.6	0.0140
80	9.10	1.83	0.78	0.0089	2004.05	0.0097
100	6.00	1.21	0.51	0.0058	1477.56	0.0072
150	2.78	0.56	0.24	0.0027	819.7	0.0040
200	1.60	0.32	0.14	0.0016	527.32	0.0026
250	1.03	0.21	0.09	0.0010	371.22	0.0018
500	0.27	0.05	0.02	0.0003	122.78	0.0006
1000	0.07	0.01	0.01	0.0001	41.91	0.0002

Met Set: Oakland

op hrs/wk: 57 | Acu Rate [g/s]: 0.0973 | Ann Rate [g/s]: 0.0341

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	18.45	7.85	0.0894	10519.95	0.0512
30	49.17	9.89	4.21	0.0479	8021.08	0.0390
40	30.65	6.17	2.62	0.0299	6281.76	0.0306
50	20.94	4.21	1.79	0.0204	5029.68	0.0245
60	15.22	3.06	1.30	0.0148	4106.19	0.0200
80	9.09	1.83	0.78	0.0089	2877.44	0.0140
100	6.04	1.22	0.52	0.0059	2127.42	0.0103
150	2.83	0.57	0.24	0.0028	1174.14	0.0057
200	1.64	0.33	0.14	0.0016	750.86	0.0037
250	1.07	0.22	0.09	0.0010	526.14	0.0026
500	0.28	0.06	0.02	0.0003	171.69	0.0008
1000	0.07	0.01	0.01	0.0001	57.64	0.0003

Met Set: Redding

op hrs/wk: 57 | Acu Rate [g/s]: 0.0973 | Ann Rate [g/s]: 0.0341

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	112.58	22.65	9.64	0.1097	11399.88	0.0555
30	59.73	12.02	5.12	0.0582	8620.94	0.0419
40	36.97	7.44	3.17	0.0360	6686.72	0.0325
50	25.14	5.06	2.15	0.0245	5317.3	0.0259
60	18.21	3.66	1.56	0.0177	4322.64	0.0210
80	10.81	2.17	0.93	0.0105	3016	0.0147
100	7.16	1.44	0.61	0.0070	2226.16	0.0108
150	3.33	0.67	0.29	0.0032	1228.45	0.0060
200	1.92	0.39	0.16	0.0019	789.26	0.0038
250	1.25	0.25	0.11	0.0012	555.62	0.0027
500	0.32	0.06	0.03	0.0003	183.77	0.0009
1000	0.08	0.02	0.01	0.0001	62.72	0.0003

Facility G-01 - 65% Perc
(cont.)

Met Set: Sacramento

op hrs/wk: 57 | Acu Rate [g/s]: 0.0973 | Ann Rate [g/s]: 0.0341

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	105.61	21.25	9.04	0.1029	11198.97	0.0545
30	55.98	11.26	4.79	0.0545	8535.41	0.0415
40	34.62	6.97	2.96	0.0337	6652.15	0.0324
50	23.52	4.73	2.01	0.0229	5306.72	0.0258
60	17.03	3.43	1.46	0.0166	4323.84	0.0210
80	10.10	2.03	0.86	0.0098	3025.89	0.0147
100	6.68	1.34	0.57	0.0065	2237.71	0.0109
150	3.11	0.63	0.27	0.0030	1238.17	0.0060
200	1.79	0.36	0.15	0.0017	794.14	0.0039
250	1.16	0.23	0.10	0.0011	557.98	0.0027
500	0.30	0.06	0.03	0.0003	184.01	0.0009
1000	0.08	0.02	0.01	0.0001	62.75	0.0003

Met Set: Anaheim

op hrs/wk: 57 | Acu Rate [g/s]: 0.0973 | Ann Rate [g/s]: 0.0341

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	44.06	18.76	0.2134	12413.44	0.0604
30	115.95	23.33	9.93	0.1130	9249.49	0.0450
40	71.59	14.40	6.13	0.0697	7109.62	0.0346
50	48.59	9.78	4.16	0.0473	5620.4	0.0273
60	35.13	7.07	3.01	0.0342	4550.74	0.0221
80	20.81	4.19	1.78	0.0203	3159.6	0.0154
100	13.75	2.77	1.18	0.0134	2325.83	0.0113
150	6.38	1.28	0.55	0.0062	1279.62	0.0062
200	3.67	0.74	0.31	0.0036	818.68	0.0040
250	2.38	0.48	0.20	0.0023	574.45	0.0028
500	0.61	0.12	0.05	0.0006	189.33	0.0009
1000	0.16	0.03	0.01	0.0002	64.55	0.0003

Met Set: Default - 0

op hrs/wk: 57 | Acu Rate [g/s]: 0.0973 | Ann Rate [g/s]: 0.0341

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	61.77	26.29	0.2991	11342.73	0.0552
30	229.98	46.27	19.70	0.2241	8496.33	0.0413
40	178.09	35.83	15.25	0.1735	6579.11	0.0320
50	141.80	28.53	12.14	0.1382	5238.72	0.0255
60	115.56	23.25	9.90	0.1126	4269.33	0.0208
80	81.09	16.32	6.95	0.0790	2995.85	0.0146
100	60.18	12.11	5.15	0.0586	2223.11	0.0108
150	33.55	6.75	2.87	0.0327	1239.31	0.0060
200	21.63	4.35	1.85	0.0211	799.09	0.0039
250	15.25	3.07	1.31	0.0149	563.57	0.0027
500	5.08	1.02	0.43	0.0049	187.51	0.0009
1000	1.74	0.35	0.15	0.0017	64.26	0.0003

Risk Assessment Summary - 3 Generic Facilities
Brake Cleaners

Facility G-01 - 94% Perc

Met Set: Burbank

op hrs/wk: 57 | Acu Rate [g/s]: 0.1407 | Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	162.66	47.41	20.18	0.2296	12417.79	0.0874
30	86.38	25.18	10.72	0.1219	9254.67	0.0651
40	53.51	15.60	6.64	0.0755	7114.91	0.0501
50	36.43	10.62	4.52	0.0514	5625.45	0.0396
60	26.41	7.70	3.28	0.0373	4555.43	0.0320
80	15.71	4.58	1.95	0.0222	3163.52	0.0223
100	10.41	3.03	1.29	0.0147	2329.1	0.0164
150	4.86	1.42	0.60	0.0069	1281.78	0.0090
200	2.81	0.82	0.35	0.0040	820.22	0.0058
250	1.83	0.53	0.23	0.0026	575.61	0.0040
500	0.48	0.14	0.06	0.0007	189.47	0.0013
1000	0.12	0.03	0.01	0.0002	64.58	0.0005

Met Set: Concord

op hrs/wk: 57 | Acu Rate [g/s]: 0.1407 | Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	47.09	20.05	0.2280	12417.79	0.0874
30	86.18	25.12	10.69	0.1216	9254.67	0.0651
40	53.59	15.62	6.65	0.0756	7114.91	0.0501
50	36.58	10.66	4.54	0.0516	5625.45	0.0396
60	26.58	7.75	3.30	0.0375	4555.43	0.0320
80	15.87	4.63	1.97	0.0224	3163.52	0.0223
100	10.55	3.07	1.31	0.0149	2329.1	0.0164
150	4.95	1.44	0.61	0.0070	1281.78	0.0090
200	2.86	0.83	0.35	0.0040	820.22	0.0058
250	1.87	0.55	0.23	0.0026	575.61	0.0040
500	0.49	0.14	0.06	0.0007	189.47	0.0013
1000	0.14	0.04	0.02	0.0002	64.58	0.0005

Met Set: Fresno

op hrs/wk: 57 | Acu Rate [g/s]: 0.1407 | Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	130.29	37.97	16.16	0.1839	11155.5	0.0785
30	68.87	20.07	8.54	0.0972	8402.65	0.0591
40	42.46	12.38	5.27	0.0599	6521.95	0.0459
50	28.78	8.39	3.57	0.0406	5186.31	0.0365
60	20.79	6.06	2.58	0.0293	4214.74	0.0297
80	12.29	3.58	1.52	0.0173	2937.5	0.0207
100	8.11	2.36	1.01	0.0114	2165.55	0.0152
150	3.76	1.10	0.47	0.0053	1191.61	0.0084
200	2.16	0.63	0.27	0.0030	761.38	0.0054
250	1.40	0.41	0.17	0.0020	533.41	0.0038
500	0.36	0.10	0.04	0.0005	174.25	0.0012
1000	0.09	0.03	0.01	0.0001	58.67	0.0004

Met Set: LAX

op hrs/wk: 57 | Acu Rate [g/s]: 0.1407 | Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	94.40	27.51	11.71	0.1332	8382.67	0.0590
30	50.61	14.75	6.28	0.0714	5996.68	0.0422
40	31.53	9.19	3.91	0.0445	4610.19	0.0324
50	21.53	6.28	2.67	0.0304	3645.08	0.0256
60	15.65	4.56	1.94	0.0221	2951.75	0.0208
80	9.34	2.72	1.16	0.0132	2049.84	0.0144
100	6.20	1.81	0.77	0.0088	1509.17	0.0106
150	2.91	0.85	0.36	0.0041	953.49	0.0067
200	1.68	0.49	0.21	0.0024	744.04	0.0052
250	1.10	0.32	0.14	0.0016	611.79	0.0043
500	0.29	0.08	0.04	0.0004	331.07	0.0023
1000	0.08	0.02	0.01	0.0001	181.35	0.0013

Facility G-01 - 94% Perc
(cont.)

Met Set: McClellan

op hrs/wk: 57 | Acu Rate [g/s]: 0.1407 | Ann Rate [g/s]: 0.0494

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	101.05	29.45	12.54	0.1426	11007.62	0.0774
30	53.37	15.56	6.62	0.0753	8490.17	0.0597
40	32.93	9.60	4.09	0.0465	6665.94	0.0469
50	22.34	6.51	2.77	0.0315	5343.61	0.0376
60	16.15	4.71	2.00	0.0228	4368.46	0.0307
80	9.57	2.79	1.19	0.0135	3069.77	0.0216
100	6.32	1.84	0.78	0.0089	2275.44	0.0160
150	2.93	0.85	0.36	0.0041	1262.34	0.0089
200	1.69	0.49	0.21	0.0024	810.41	0.0057
250	1.09	0.32	0.14	0.0015	569.61	0.0040
500	0.28	0.08	0.03	0.0004	187.81	0.0013
1000	0.07	0.02	0.01	0.0001	63.95	0.0004

Met Set: Mather

op hrs/wk: 57 | Acu Rate [g/s]: 0.1407 | Ann Rate [g/s]: 0.0494

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	96.52	28.13	11.98	0.1362	8470.5	0.0596
30	50.95	14.85	6.32	0.0719	5762.29	0.0405
40	31.40	9.15	3.90	0.0443	4464.6	0.0314
50	21.29	6.21	2.64	0.0300	3545.55	0.0249
60	15.38	4.48	1.91	0.0217	2878.6	0.0203
80	9.10	2.65	1.13	0.0128	2004.05	0.0141
100	6.00	1.75	0.74	0.0085	1477.56	0.0104
150	2.78	0.81	0.34	0.0039	819.7	0.0058
200	1.60	0.47	0.20	0.0023	527.32	0.0037
250	1.03	0.30	0.13	0.0015	371.22	0.0026
500	0.27	0.08	0.03	0.0004	122.78	0.0009
1000	0.07	0.02	0.01	0.0001	41.91	0.0003

Met Set: Oakland

op hrs/wk: 57 | Acu Rate [g/s]: 0.1407 | Ann Rate [g/s]: 0.0494

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	91.71	26.73	11.38	0.1294	10519.95	0.0740
30	49.17	14.33	6.10	0.0694	8021.08	0.0564
40	30.65	8.93	3.80	0.0433	6281.76	0.0442
50	20.94	6.10	2.60	0.0296	5029.68	0.0354
60	15.22	4.44	1.89	0.0215	4106.19	0.0289
80	9.09	2.65	1.13	0.0128	2877.44	0.0202
100	6.04	1.76	0.75	0.0085	2127.42	0.0150
150	2.83	0.82	0.35	0.0040	1174.14	0.0083
200	1.64	0.48	0.20	0.0023	750.86	0.0053
250	1.07	0.31	0.13	0.0015	526.14	0.0037
500	0.28	0.08	0.03	0.0004	171.69	0.0012
1000	0.07	0.02	0.01	0.0001	57.64	0.0004

Met Set: Redding

op hrs/wk: 57 | Acu Rate [g/s]: 0.1407 | Ann Rate [g/s]: 0.0494

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	112.58	32.81	13.97	0.1589	11399.88	0.0802
30	59.73	17.41	7.41	0.0843	8620.94	0.0606
40	36.97	10.78	4.59	0.0522	6686.72	0.0470
50	25.14	7.33	3.12	0.0355	5317.3	0.0374
60	18.21	5.31	2.26	0.0257	4322.64	0.0304
80	10.81	3.15	1.34	0.0153	3016	0.0212
100	7.16	2.09	0.89	0.0101	2226.16	0.0157
150	3.33	0.97	0.41	0.0047	1228.45	0.0086
200	1.92	0.56	0.24	0.0027	789.26	0.0056
250	1.25	0.36	0.16	0.0018	555.62	0.0039
500	0.32	0.09	0.04	0.0005	183.77	0.0013
1000	0.08	0.02	0.01	0.0001	62.72	0.0004

Facility G-01 - 94% Perc
(cont.)

Met Set: Sacramento

op hrs/wk: 57 | Acu Rate [g/s]: 0.1407 | Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	105.61	30.78	13.10	0.1491	11198.97	0.0788
30	55.98	16.32	6.95	0.0790	8535.41	0.0600
40	34.62	10.09	4.30	0.0489	6652.15	0.0468
50	23.52	6.86	2.92	0.0332	5306.72	0.0373
60	17.03	4.96	2.11	0.0240	4323.84	0.0304
80	10.10	2.94	1.25	0.0143	3025.89	0.0213
100	6.68	1.95	0.83	0.0094	2237.71	0.0157
150	3.11	0.91	0.39	0.0044	1238.17	0.0087
200	1.79	0.52	0.22	0.0025	794.14	0.0056
250	1.16	0.34	0.14	0.0016	557.98	0.0039
500	0.30	0.09	0.04	0.0004	184.01	0.0013
1000	0.08	0.02	0.01	0.0001	62.75	0.0004

Met Set: Anaheim

op hrs/wk: 57 | Acu Rate [g/s]: 0.1407 | Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	63.84	27.17	0.3091	12413.44	0.0873
30	115.95	33.79	14.39	0.1637	9249.49	0.0651
40	71.59	20.87	8.88	0.1010	7109.62	0.0500
50	48.59	14.16	6.03	0.0686	5620.4	0.0395
60	35.13	10.24	4.36	0.0496	4550.74	0.0320
80	20.81	6.07	2.58	0.0294	3159.6	0.0222
100	13.75	4.01	1.71	0.0194	2325.83	0.0164
150	6.38	1.86	0.79	0.0090	1279.62	0.0090
200	3.67	1.07	0.46	0.0052	818.68	0.0058
250	2.38	0.69	0.30	0.0034	574.45	0.0040
500	0.61	0.18	0.08	0.0009	189.33	0.0013
1000	0.16	0.05	0.02	0.0002	64.55	0.0005

Met Set: Default - 0

op hrs/wk: 57 | Acu Rate [g/s]: 0.1407 | Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	89.49	38.09	0.4334	11342.73	0.0798
30	229.98	67.03	28.53	0.3246	8496.33	0.0598
40	178.09	51.91	22.09	0.2514	6579.11	0.0463
50	141.80	41.33	17.59	0.2001	5238.72	0.0369
60	115.56	33.68	14.34	0.1631	4269.33	0.0300
80	81.09	23.64	10.06	0.1145	2995.85	0.0211
100	60.18	17.54	7.47	0.0849	2223.11	0.0156
150	33.55	9.78	4.16	0.0473	1239.31	0.0087
200	21.63	6.30	2.68	0.0305	799.09	0.0056
250	15.25	4.45	1.89	0.0215	563.57	0.0040
500	5.08	1.48	0.63	0.0072	187.51	0.0013
1000	1.74	0.51	0.22	0.0025	64.26	0.0005

Risk Assessment Summary - 3 Generic Facilities
Brake Cleaners

Facility G-02 - 65% Perc

Met Set: Burbank

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.87	59.13	25.17	0.2863	5528.38	0.0538
30	71.96	43.48	18.51	0.2105	4845.41	0.0471
40	46.45	28.06	11.95	0.1359	4048.28	0.0394
50	32.37	19.56	8.32	0.0947	3418.07	0.0333
60	23.83	14.40	6.13	0.0697	2918.05	0.0284
80	14.48	8.75	3.72	0.0424	2193.5	0.0213
100	9.73	5.88	2.50	0.0285	1708.42	0.0166
150	4.64	2.80	1.19	0.0136	1026.4	0.0100
200	2.71	1.64	0.70	0.0079	690.62	0.0067
250	1.77	1.07	0.46	0.0052	500.6	0.0049
500	0.47	0.28	0.12	0.0014	176.69	0.0017
1000	0.12	0.07	0.03	0.0004	62.47	0.0006

Met Set: Concord

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.28	58.77	25.02	0.2846	5532.86	0.0538
30	71.32	43.09	18.34	0.2087	4845.41	0.0471
40	46.19	27.91	11.88	0.1351	4048.28	0.0394
50	32.27	19.50	8.30	0.0944	3418.07	0.0333
60	23.83	14.40	6.13	0.0697	2918.05	0.0284
80	14.54	8.78	3.74	0.0425	2193.5	0.0213
100	9.80	5.92	2.52	0.0287	1708.42	0.0166
150	4.70	2.84	1.21	0.0138	1026.4	0.0100
200	2.75	1.66	0.71	0.0080	690.62	0.0067
250	1.81	1.09	0.47	0.0053	500.6	0.0049
500	0.48	0.29	0.12	0.0014	176.69	0.0017
1000	0.14	0.08	0.04	0.0004	62.47	0.0006

Met Set: Fresno

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	72.47	43.78	18.64	0.2120	5150.55	0.0501
30	57.46	34.72	14.78	0.1681	4329.74	0.0421
40	37.02	22.37	9.52	0.1083	3636.07	0.0354
50	25.71	15.53	6.61	0.0752	3085.18	0.0300
60	18.87	11.40	4.85	0.0552	2652.23	0.0258
80	11.40	6.89	2.93	0.0334	2011.93	0.0196
100	7.62	4.60	1.96	0.0223	1575.29	0.0153
150	3.60	2.17	0.93	0.0105	951.66	0.0093
200	2.09	1.26	0.54	0.0061	641.05	0.0062
250	1.36	0.82	0.35	0.0040	464.48	0.0045
500	0.35	0.21	0.09	0.0010	162.91	0.0016
1000	0.09	0.05	0.02	0.0003	56.88	0.0006

Met Set: LAX

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	46.21	27.92	11.88	0.1352	4438.48	0.0432
30	41.73	25.21	10.73	0.1221	3329.4	0.0324
40	27.17	16.42	6.99	0.0795	2623.13	0.0255
50	19.02	11.49	4.89	0.0556	2214.78	0.0215
60	14.06	8.49	3.62	0.0411	1890.78	0.0184
80	8.58	5.18	2.21	0.0251	1421.31	0.0138
100	5.79	3.50	1.49	0.0169	1161.72	0.0113
150	2.77	1.67	0.71	0.0081	864.8	0.0084
200	1.62	0.98	0.42	0.0047	690.47	0.0067
250	1.07	0.65	0.28	0.0031	576.01	0.0056
500	0.29	0.18	0.07	0.0008	321.35	0.0031
1000	0.08	0.05	0.02	0.0002	178.82	0.0017

Facility G-02 - 65% Perc
(cont.)

Met Set: McClellan

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	64.21	38.79	16.51	0.1879	4940.31	0.0481
30	44.73	27.02	11.50	0.1309	4201.41	0.0409
40	28.75	17.37	7.39	0.0841	3602.76	0.0351
50	19.97	12.07	5.14	0.0584	3101.33	0.0302
60	14.66	8.86	3.77	0.0429	2686.93	0.0261
80	8.86	5.35	2.28	0.0259	2061.66	0.0201
100	5.94	3.59	1.53	0.0174	1627.16	0.0158
150	2.81	1.70	0.72	0.0082	995.28	0.0097
200	1.63	0.98	0.42	0.0048	675.35	0.0066
250	1.06	0.64	0.27	0.0031	491.77	0.0048
500	0.28	0.17	0.07	0.0008	174.75	0.0017
1000	0.07	0.04	0.02	0.0002	61.83	0.0006

Met Set: Mather

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	57.90	34.98	14.89	0.1694	3794.23	0.0369
30	42.67	25.78	10.97	0.1248	3373.6	0.0328
40	27.44	16.58	7.06	0.0803	2579.42	0.0251
50	19.05	11.51	4.90	0.0557	2118.71	0.0206
60	13.97	8.44	3.59	0.0409	1819.33	0.0177
80	8.44	5.10	2.17	0.0247	1377.52	0.0134
100	5.64	3.41	1.45	0.0165	1077.14	0.0105
150	2.66	1.61	0.68	0.0078	649.65	0.0063
200	1.55	0.94	0.40	0.0045	438.54	0.0043
250	1.01	0.61	0.26	0.0030	319.33	0.0031
500	0.26	0.16	0.07	0.0008	113.98	0.0011
1000	0.07	0.04	0.02	0.0002	40.48	0.0004

Met Set: Oakland

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	48.31	29.19	12.42	0.1413	4685.59	0.0456
30	40.60	24.53	10.44	0.1188	4028.18	0.0392
40	26.41	15.96	6.79	0.0773	3439.11	0.0335
50	18.50	11.18	4.76	0.0541	2941.66	0.0286
60	13.67	8.26	3.52	0.0400	2531.88	0.0246
80	8.35	5.04	2.15	0.0244	1940.79	0.0189
100	5.63	3.40	1.45	0.0165	1529.51	0.0149
150	2.70	1.63	0.69	0.0079	931.7	0.0091
200	1.58	0.95	0.41	0.0046	629.79	0.0061
250	1.04	0.63	0.27	0.0030	457.07	0.0044
500	0.28	0.17	0.07	0.0008	160.49	0.0016
1000	0.07	0.04	0.02	0.0002	55.89	0.0005

Met Set: Redding

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	68.47	41.37	17.61	0.2003	5262.77	0.0512
30	49.83	30.11	12.82	0.1458	4405.79	0.0429
40	32.16	19.43	8.27	0.0941	3722.07	0.0362
50	22.38	13.52	5.76	0.0655	3168.63	0.0308
60	16.46	9.94	4.23	0.0482	2722.05	0.0265
80	9.99	6.04	2.57	0.0292	2063.9	0.0201
100	6.70	4.05	1.72	0.0196	1616.3	0.0157
150	3.18	1.92	0.82	0.0093	978.01	0.0095
200	1.86	1.12	0.48	0.0054	660.08	0.0064
250	1.21	0.73	0.31	0.0035	479.17	0.0047
500	0.32	0.19	0.08	0.0009	170.6	0.0017
1000	0.08	0.05	0.02	0.0002	60.59	0.0006

Facility G-02 - 65% Perc
(cont.)

Met Set: Sacramento

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	63.33	38.26	16.29	0.1853	5079.25	0.0494
30	46.73	28.23	12.02	0.1367	4307.48	0.0419
40	30.14	18.21	7.75	0.0882	3660.84	0.0356
50	20.96	12.66	5.39	0.0613	3130.22	0.0305
60	15.41	9.31	3.96	0.0451	2698.02	0.0263
80	9.34	5.64	2.40	0.0273	2055.28	0.0200
100	6.27	3.79	1.61	0.0183	1614.56	0.0157
150	2.97	1.79	0.76	0.0087	981.41	0.0095
200	1.73	1.05	0.44	0.0051	664.04	0.0065
250	1.13	0.68	0.29	0.0033	482.83	0.0047
500	0.30	0.18	0.08	0.0009	171.3	0.0017
1000	0.08	0.05	0.02	0.0002	60.66	0.0006

Met Set: Anaheim

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	125.69	75.94	32.32	0.3677	5444.38	0.0530
30	96.66	58.40	24.86	0.2828	4844.11	0.0471
40	62.33	37.66	16.03	0.1824	4046.7	0.0394
50	43.33	26.18	11.14	0.1268	3416.34	0.0332
60	31.84	19.24	8.19	0.0932	2916.25	0.0284
80	19.26	11.64	4.95	0.0563	2191.72	0.0213
100	12.90	7.79	3.32	0.0377	1706.75	0.0166
150	6.11	3.69	1.57	0.0179	1025.07	0.0100
200	3.55	2.14	0.91	0.0104	689.56	0.0067
250	2.32	1.40	0.60	0.0068	499.75	0.0049
500	0.60	0.36	0.15	0.0018	176.33	0.0017
1000	0.16	0.10	0.04	0.0005	62.42	0.0006

Met Set: Default - 0

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	86.29	36.73	0.4179	5276.51	0.0513
30	117.98	71.28	30.34	0.3452	4358.64	0.0424
40	98.78	59.68	25.40	0.2890	3649.09	0.0355
50	83.77	50.61	21.54	0.2451	3094.79	0.0301
60	71.89	43.44	18.49	0.2103	2656.01	0.0258
80	54.62	33.00	14.05	0.1598	2017.70	0.0196
100	42.94	25.94	11.04	0.1256	1586.22	0.0154
150	26.25	15.86	6.75	0.0768	969.72	0.0094
200	17.86	10.79	4.59	0.0523	659.99	0.0064
250	13.05	7.89	3.36	0.0382	482.19	0.0047
500	4.69	2.83	1.21	0.0137	173.33	0.0017
1000	1.68	1.01	0.43	0.0049	61.90	0.0006

Risk Assessment Summary - 3 Generic Facilities
Brake Cleaners

Facility G-02 - 94% Perc

Met Set: Burbank

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.87	85.52	36.40	0.4141	5528.38	0.0778
30	71.96	62.88	26.77	0.3045	4845.41	0.0682
40	46.45	40.59	17.28	0.1965	4048.28	0.0570
50	32.37	28.28	12.04	0.1370	3418.07	0.0481
60	23.83	20.82	8.86	0.1008	2918.05	0.0411
80	14.48	12.65	5.39	0.0613	2193.5	0.0309
100	9.73	8.50	3.62	0.0412	1708.42	0.0240
150	4.64	4.05	1.73	0.0196	1026.4	0.0144
200	2.71	2.37	1.01	0.0115	690.62	0.0097
250	1.77	1.55	0.66	0.0075	500.6	0.0070
500	0.47	0.41	0.17	0.0020	176.69	0.0025
1000	0.12	0.10	0.04	0.0005	62.47	0.0009

Met Set: Concord

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.28	85.00	36.18	0.4116	5532.86	0.0779
30	71.32	62.32	26.53	0.3018	4845.41	0.0682
40	46.19	40.36	17.18	0.1954	4048.28	0.0570
50	32.27	28.20	12.00	0.1365	3418.07	0.0481
60	23.83	20.82	8.86	0.1008	2918.05	0.0411
80	14.54	12.70	5.41	0.0615	2193.5	0.0309
100	9.80	8.56	3.65	0.0415	1708.42	0.0240
150	4.70	4.11	1.75	0.0199	1026.4	0.0144
200	2.75	2.40	1.02	0.0116	690.62	0.0097
250	1.81	1.58	0.67	0.0077	500.6	0.0070
500	0.48	0.42	0.18	0.0020	176.69	0.0025
1000	0.14	0.12	0.05	0.0006	62.47	0.0009

Met Set: Fresno

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	72.47	63.32	26.96	0.3067	5150.55	0.0725
30	57.46	50.21	21.37	0.2431	4329.74	0.0609
40	37.02	32.35	13.77	0.1566	3636.07	0.0512
50	25.71	22.47	9.56	0.1088	3085.18	0.0434
60	18.87	16.49	7.02	0.0798	2652.23	0.0373
80	11.40	9.96	4.24	0.0482	2011.93	0.0283
100	7.62	6.66	2.83	0.0322	1575.29	0.0222
150	3.60	3.15	1.34	0.0152	951.66	0.0134
200	2.09	1.83	0.78	0.0088	641.05	0.0090
250	1.36	1.19	0.51	0.0058	464.48	0.0065
500	0.35	0.31	0.13	0.0015	162.91	0.0023
1000	0.09	0.08	0.03	0.0004	56.88	0.0008

Met Set: LAX

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	46.21	40.38	17.19	0.1955	4438.48	0.0625
30	41.73	36.46	15.52	0.1766	3329.4	0.0469
40	27.17	23.74	10.11	0.1150	2623.13	0.0369
50	19.02	16.62	7.07	0.0805	2214.78	0.0312
60	14.06	12.29	5.23	0.0595	1890.78	0.0266
80	8.58	7.50	3.19	0.0363	1421.31	0.0200
100	5.79	5.06	2.15	0.0245	1161.72	0.0164
150	2.77	2.42	1.03	0.0117	864.8	0.0122
200	1.62	1.42	0.60	0.0069	690.47	0.0097
250	1.07	0.93	0.40	0.0045	576.01	0.0081
500	0.29	0.25	0.11	0.0012	321.35	0.0045
1000	0.08	0.07	0.03	0.0003	178.82	0.0025

Facility G-02 - 94% Perc
(cont.)

Met Set: McClellan

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	64.21	56.11	23.88	0.2717	4940.31	0.0695
30	44.73	39.08	16.64	0.1893	4201.41	0.0591
40	28.75	25.12	10.69	0.1217	3602.76	0.0507
50	19.97	17.45	7.43	0.0845	3101.33	0.0437
60	14.66	12.81	5.45	0.0620	2686.93	0.0378
80	8.86	7.74	3.30	0.0375	2061.66	0.0290
100	5.94	5.19	2.21	0.0251	1627.16	0.0229
150	2.81	2.46	1.05	0.0119	995.28	0.0140
200	1.63	1.42	0.61	0.0069	675.35	0.0095
250	1.06	0.93	0.39	0.0045	491.77	0.0069
500	0.28	0.24	0.10	0.0012	174.75	0.0025
1000	0.07	0.06	0.03	0.0003	61.83	0.0009

Met Set: Mather

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	57.90	50.59	21.54	0.2450	3794.23	0.0534
30	42.67	37.28	15.87	0.1806	3373.6	0.0475
40	27.44	23.98	10.21	0.1161	2579.42	0.0363
50	19.05	16.65	7.09	0.0806	2118.71	0.0298
60	13.97	12.21	5.20	0.0591	1819.33	0.0256
80	8.44	7.37	3.14	0.0357	1377.52	0.0194
100	5.64	4.93	2.10	0.0239	1077.14	0.0152
150	2.66	2.32	0.99	0.0113	649.65	0.0091
200	1.55	1.35	0.58	0.0066	438.54	0.0062
250	1.01	0.88	0.38	0.0043	319.33	0.0045
500	0.26	0.23	0.10	0.0011	113.98	0.0016
1000	0.07	0.06	0.03	0.0003	40.48	0.0006

Met Set: Oakland

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	48.31	42.21	17.97	0.2044	4685.59	0.0659
30	40.60	35.48	15.10	0.1718	4028.18	0.0567
40	26.41	23.08	9.82	0.1118	3439.11	0.0484
50	18.50	16.17	6.88	0.0783	2941.66	0.0414
60	13.67	11.94	5.08	0.0578	2531.88	0.0356
80	8.35	7.30	3.11	0.0353	1940.79	0.0273
100	5.63	4.92	2.09	0.0238	1529.51	0.0215
150	2.70	2.36	1.00	0.0114	931.7	0.0131
200	1.58	1.38	0.59	0.0067	629.79	0.0089
250	1.04	0.91	0.39	0.0044	457.07	0.0064
500	0.28	0.24	0.10	0.0012	160.49	0.0023
1000	0.07	0.06	0.03	0.0003	55.89	0.0008

Met Set: Redding

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	68.47	59.83	25.47	0.2897	5262.77	0.0741
30	49.83	43.54	18.53	0.2109	4405.79	0.0620
40	32.16	28.10	11.96	0.1361	3722.07	0.0524
50	22.38	19.56	8.32	0.0947	3168.63	0.0446
60	16.46	14.38	6.12	0.0696	2722.05	0.0383
80	9.99	8.73	3.72	0.0423	2063.9	0.0290
100	6.70	5.85	2.49	0.0284	1616.3	0.0227
150	3.18	2.78	1.18	0.0135	978.01	0.0138
200	1.86	1.63	0.69	0.0079	660.08	0.0093
250	1.21	1.06	0.45	0.0051	479.17	0.0067
500	0.32	0.28	0.12	0.0014	170.6	0.0024
1000	0.08	0.07	0.03	0.0003	60.59	0.0009

Facility G-02 - 94% Perc
(cont.)

Met Set: Sacramento

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	63.33	55.34	23.56	0.2680	5079.25	0.0715
30	46.73	40.83	17.38	0.1977	4307.48	0.0606
40	30.14	26.34	11.21	0.1275	3660.84	0.0515
50	20.96	18.31	7.80	0.0887	3130.22	0.0441
60	15.41	13.47	5.73	0.0652	2698.02	0.0380
80	9.34	8.16	3.47	0.0395	2055.28	0.0289
100	6.27	5.48	2.33	0.0265	1614.56	0.0227
150	2.97	2.60	1.10	0.0126	981.41	0.0138
200	1.73	1.51	0.64	0.0073	664.04	0.0093
250	1.13	0.99	0.42	0.0048	482.83	0.0068
500	0.30	0.26	0.11	0.0013	171.3	0.0024
1000	0.08	0.07	0.03	0.0003	60.66	0.0009

Met Set: Anaheim

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	125.69	109.83	46.75	0.5318	5444.38	0.0766
30	96.66	84.46	35.95	0.4090	4844.11	0.0682
40	62.33	54.46	23.18	0.2637	4046.7	0.0570
50	43.33	37.86	16.12	0.1833	3416.34	0.0481
60	31.84	27.82	11.84	0.1347	2916.25	0.0410
80	19.26	16.83	7.16	0.0815	2191.72	0.0308
100	12.90	11.27	4.80	0.0546	1706.75	0.0240
150	6.11	5.34	2.27	0.0259	1025.07	0.0144
200	3.55	3.10	1.32	0.0150	689.56	0.0097
250	2.32	2.03	0.86	0.0098	499.75	0.0070
500	0.60	0.52	0.22	0.0025	176.33	0.0025
1000	0.16	0.14	0.06	0.0007	62.42	0.0009

Met Set: Default - 0

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	124.80	53.13	0.6044	5276.51	0.0743
30	117.98	103.09	43.88	0.4992	4358.64	0.0613
40	98.78	86.31	36.74	0.4180	3649.09	0.0514
50	83.77	73.20	31.16	0.3545	3094.79	0.0436
60	71.89	62.82	26.74	0.3042	2656.01	0.0374
80	54.62	47.72	20.31	0.2311	2017.70	0.0284
100	42.94	37.52	15.97	0.1817	1586.22	0.0223
150	26.25	22.94	9.76	0.1111	969.72	0.0136
200	17.86	15.61	6.64	0.0756	659.99	0.0093
250	13.05	11.40	4.85	0.0552	482.19	0.0068
500	4.69	4.10	1.75	0.0199	173.33	0.0024
1000	1.68	1.46	0.62	0.0071	61.90	0.0009

Risk Assessment Summary - 3 Generic Facilities
Brake Cleaners

Facility G-03 - 65% Perc

Met Set: Burbank

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	17.91	10.82	4.61	0.0524	1344.25	0.0131
30	42.20	25.50	10.85	0.1235	1964.95	0.0191
40	35.87	21.67	9.22	0.1049	1702.1	0.0166
50	33.01	19.94	8.49	0.0966	2640.9	0.0257
60	26.91	16.26	6.92	0.0787	2498.24	0.0243
80	15.68	9.47	4.03	0.0459	1915.64	0.0186
100	10.28	6.21	2.64	0.0301	1511.07	0.0147
150	4.76	2.88	1.22	0.0139	927.46	0.0090
200	2.75	1.66	0.71	0.0080	633.44	0.0062
250	1.79	1.08	0.46	0.0052	464.37	0.0045
500	0.47	0.28	0.12	0.0014	169	0.0016
1000	0.12	0.07	0.03	0.0004	61	0.0006

Met Set: Concord

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	11.04	4.70	0.0535	1344.83	0.0131
30	41.78	25.24	10.74	0.1222	1964.95	0.0191
40	35.45	21.42	9.12	0.1037	1702.1	0.0166
50	32.92	19.89	8.47	0.0963	2643.95	0.0257
60	26.78	16.18	6.89	0.0784	2498.24	0.0243
80	15.70	9.49	4.04	0.0459	1915.64	0.0186
100	10.33	6.24	2.66	0.0302	1511.07	0.0147
150	4.82	2.91	1.24	0.0141	927.46	0.0090
200	2.79	1.69	0.72	0.0082	633.44	0.0062
250	1.83	1.11	0.47	0.0054	464.37	0.0045
500	0.48	0.29	0.12	0.0014	169	0.0016
1000	0.14	0.08	0.04	0.0004	61	0.0006

Met Set: Fresno

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	20.09	12.14	5.17	0.0588	1266.24	0.0123
30	34.50	20.84	8.87	0.1009	1668.13	0.0162
40	26.10	15.77	6.71	0.0764	1472.59	0.0143
50	24.31	14.69	6.25	0.0711	1934.45	0.0188
60	20.92	12.64	5.38	0.0612	1746.52	0.0170
80	12.26	7.41	3.15	0.0359	1403.39	0.0137
100	8.02	4.85	2.06	0.0235	1167.81	0.0114
150	3.69	2.23	0.95	0.0108	760.67	0.0074
200	2.12	1.28	0.55	0.0062	527.81	0.0051
250	1.37	0.83	0.35	0.0040	395.54	0.0038
500	0.35	0.21	0.09	0.0010	151.49	0.0015
1000	0.09	0.05	0.02	0.0003	55.11	0.0005

Met Set: LAX

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.48	11.16	4.75	0.0541	993.39	0.0097
30	25.65	15.50	6.60	0.0750	1273.21	0.0124
40	17.83	10.77	4.59	0.0522	1102.9	0.0107
50	16.29	9.84	4.19	0.0477	1712.71	0.0167
60	15.31	9.25	3.94	0.0448	1618.76	0.0158
80	9.15	5.53	2.35	0.0268	1241.26	0.0121
100	6.06	3.66	1.56	0.0177	979.11	0.0095
150	2.84	1.72	0.73	0.0083	728.7	0.0071
200	1.65	1.00	0.42	0.0048	601.14	0.0058
250	1.08	0.65	0.28	0.0032	517.17	0.0050
500	0.29	0.18	0.07	0.0008	306.22	0.0030
1000	0.08	0.05	0.02	0.0002	175.03	0.0017

Facility G-03 - 65% Perc
(cont.)

Met Set: McClellan

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	8.95	5.41	2.30	0.0262	1324.96	0.0129
30	25.93	15.67	6.67	0.0759	1554.15	0.0151
40	23.06	13.93	5.93	0.0675	1492.44	0.0145
50	21.36	12.90	5.49	0.0625	1764.81	0.0172
60	16.75	10.12	4.31	0.0490	1581.78	0.0154
80	9.65	5.83	2.48	0.0282	1214.97	0.0118
100	6.29	3.80	1.62	0.0184	1033.69	0.0101
150	2.89	1.75	0.74	0.0085	699.04	0.0068
200	1.66	1.00	0.43	0.0049	517.13	0.0050
250	1.08	0.65	0.28	0.0032	398.9	0.0039
500	0.28	0.17	0.07	0.0008	159.29	0.0015
1000	0.07	0.04	0.02	0.0002	59.42	0.0006

Met Set: Mather

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	6.92	2.95	0.0335	958.09	0.0093
30	25.06	15.14	6.44	0.0733	1290.22	0.0126
40	20.77	12.55	5.34	0.0608	1240.56	0.0121
50	19.28	11.65	4.96	0.0564	1734.69	0.0169
60	15.76	9.52	4.05	0.0461	1546.97	0.0151
80	9.15	5.53	2.35	0.0268	1057.88	0.0103
100	5.97	3.61	1.54	0.0175	790.98	0.0077
150	2.74	1.66	0.70	0.0080	526.98	0.0051
200	1.57	0.95	0.40	0.0046	374.12	0.0036
250	1.02	0.62	0.26	0.0030	280.03	0.0027
500	0.26	0.16	0.07	0.0008	105.06	0.0010
1000	0.07	0.04	0.02	0.0002	38.59	0.0004

Met Set: Oakland

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	15.58	9.41	4.01	0.0456	1242.49	0.0121
30	24.65	14.89	6.34	0.0721	1456.6	0.0142
40	18.32	11.07	4.71	0.0536	1455.87	0.0142
50	16.79	10.14	4.32	0.0491	1716.38	0.0167
60	15.06	9.10	3.87	0.0441	1622.23	0.0158
80	8.95	5.41	2.30	0.0262	1243.92	0.0121
100	5.91	3.57	1.52	0.0173	981.21	0.0095
150	2.76	1.67	0.71	0.0081	669.93	0.0065
200	1.60	0.97	0.41	0.0047	487.14	0.0047
250	1.05	0.63	0.27	0.0031	367.88	0.0036
500	0.28	0.17	0.07	0.0008	145.98	0.0014
1000	0.07	0.04	0.02	0.0002	53.8	0.0005

Met Set: Redding

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.91	7.20	3.06	0.0348	1203.97	0.0117
30	29.23	17.66	7.52	0.0855	1727.12	0.0168
40	25.02	15.12	6.43	0.0732	1517.85	0.0148
50	23.12	13.97	5.95	0.0676	2116.06	0.0206
60	18.67	11.28	4.80	0.0546	1858.14	0.0181
80	10.84	6.55	2.79	0.0317	1510.93	0.0147
100	7.09	4.28	1.82	0.0207	1227.09	0.0119
150	3.27	1.98	0.84	0.0096	776.75	0.0076
200	1.88	1.14	0.48	0.0055	553.96	0.0054
250	1.23	0.74	0.32	0.0036	416.48	0.0041
500	0.32	0.19	0.08	0.0009	158.33	0.0015
1000	0.08	0.05	0.02	0.0002	57.91	0.0006

Facility G-03 - 65% Perc
(cont.)

Met Set: Sacramento

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	12.95	7.82	3.33	0.0379	1295.57	0.0126
30	27.76	16.77	7.14	0.0812	1644.39	0.0160
40	22.81	13.78	5.87	0.0667	1452.28	0.0141
50	21.26	12.84	5.47	0.0622	1884.88	0.0183
60	17.37	10.49	4.47	0.0508	1690.83	0.0165
80	10.12	6.11	2.60	0.0296	1379.12	0.0134
100	6.62	4.00	1.70	0.0194	1135.35	0.0110
150	3.05	1.84	0.78	0.0089	749.73	0.0073
200	1.76	1.06	0.45	0.0051	542.55	0.0053
250	1.14	0.69	0.29	0.0033	411.47	0.0040
500	0.30	0.18	0.08	0.0009	159.01	0.0015
1000	0.08	0.05	0.02	0.0002	58.65	0.0006

Met Set: Anaheim

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	31.15	18.82	8.01	0.0911	1343.62	0.0131
30	57.73	34.88	14.85	0.1689	1964.47	0.0191
40	44.96	27.16	11.56	0.1315	1701.54	0.0166
50	41.98	25.36	10.80	0.1228	2643.73	0.0257
60	35.48	21.44	9.12	0.1038	2497.42	0.0243
80	20.76	12.54	5.34	0.0607	1914.71	0.0186
100	13.59	8.21	3.50	0.0398	1510.1	0.0147
150	6.26	3.78	1.61	0.0183	926.57	0.0090
200	3.60	2.17	0.93	0.0105	632.67	0.0062
250	2.34	1.41	0.60	0.0068	463.72	0.0045
500	0.61	0.37	0.16	0.0018	168.65	0.0016
1000	0.16	0.10	0.04	0.0005	60.83	0.0006

Met Set: Default - 0

op hrs/wk: 57 | Acu Rate [g/s]: 0.1946 | Ann Rate [g/s]: 0.1024

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	44.89	19.11	0.2174	2744.96	0.0267
30	64.57	39.01	16.61	0.1889	2385.45	0.0232
40	56.52	34.15	14.54	0.1654	2088.05	0.0203
50	49.84	30.11	12.82	0.1458	1841.40	0.0179
60	44.27	26.75	11.39	0.1295	1635.59	0.0159
80	35.62	21.52	9.16	0.1042	1315.96	0.0128
100	29.32	17.71	7.54	0.0858	1083.10	0.0105
150	19.45	11.75	5.00	0.0569	718.69	0.0070
200	13.97	8.44	3.59	0.0409	516.25	0.0050
250	10.61	6.41	2.73	0.0310	391.81	0.0038
500	4.18	2.53	1.08	0.0122	154.56	0.0015
1000	1.58	0.96	0.41	0.0046	58.40	0.0006

Risk Assessment Summary - 3 Generic Facilities
Brake Cleaners

Facility G-03 - 94% Perc

Met Set: Burbank

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	17.91	15.65	6.66	0.0758	1344.25	0.0189
30	42.20	36.87	15.70	0.1786	1964.95	0.0277
40	35.87	31.34	13.34	0.1518	1702.1	0.0240
50	33.01	28.84	12.28	0.1397	2640.9	0.0372
60	26.91	23.51	10.01	0.1139	2498.24	0.0352
80	15.68	13.70	5.83	0.0663	1915.64	0.0270
100	10.28	8.98	3.82	0.0435	1511.07	0.0213
150	4.76	4.16	1.77	0.0201	927.46	0.0131
200	2.75	2.40	1.02	0.0116	633.44	0.0089
250	1.79	1.56	0.67	0.0076	464.37	0.0065
500	0.47	0.41	0.17	0.0020	169	0.0024
1000	0.12	0.10	0.04	0.0005	61	0.0009

Met Set: Concord

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	15.97	6.80	0.0774	1344.83	0.0189
30	41.78	36.51	15.54	0.1768	1964.95	0.0277
40	35.45	30.98	13.19	0.1500	1702.1	0.0240
50	32.92	28.77	12.24	0.1393	2643.95	0.0372
60	26.78	23.40	9.96	0.1133	2498.24	0.0352
80	15.70	13.72	5.84	0.0664	1915.64	0.0270
100	10.33	9.03	3.84	0.0437	1511.07	0.0213
150	4.82	4.21	1.79	0.0204	927.46	0.0131
200	2.79	2.44	1.04	0.0118	633.44	0.0089
250	1.83	1.60	0.68	0.0077	464.37	0.0065
500	0.48	0.42	0.18	0.0020	169	0.0024
1000	0.14	0.12	0.05	0.0006	61	0.0009

Met Set: Fresno

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	20.09	17.55	7.47	0.0850	1266.24	0.0178
30	34.50	30.15	12.83	0.1460	1668.13	0.0235
40	26.10	22.81	9.71	0.1104	1472.59	0.0207
50	24.31	21.24	9.04	0.1029	1934.45	0.0272
60	20.92	18.28	7.78	0.0885	1746.52	0.0246
80	12.26	10.71	4.56	0.0519	1403.39	0.0198
100	8.02	7.01	2.98	0.0339	1167.81	0.0164
150	3.69	3.22	1.37	0.0156	760.67	0.0107
200	2.12	1.85	0.79	0.0090	527.81	0.0074
250	1.37	1.20	0.51	0.0058	395.54	0.0056
500	0.35	0.31	0.13	0.0015	151.49	0.0021
1000	0.09	0.08	0.03	0.0004	55.11	0.0008

Met Set: LAX

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.48	16.15	6.87	0.0782	993.39	0.0140
30	25.65	22.41	9.54	0.1085	1273.21	0.0179
40	17.83	15.58	6.63	0.0754	1102.9	0.0155
50	16.29	14.23	6.06	0.0689	1712.71	0.0241
60	15.31	13.38	5.69	0.0648	1618.76	0.0228
80	9.15	8.00	3.40	0.0387	1241.26	0.0175
100	6.06	5.30	2.25	0.0256	979.11	0.0138
150	2.84	2.48	1.06	0.0120	728.7	0.0103
200	1.65	1.44	0.61	0.0070	601.14	0.0085
250	1.08	0.94	0.40	0.0046	517.17	0.0073
500	0.29	0.25	0.11	0.0012	306.22	0.0043
1000	0.08	0.07	0.03	0.0003	175.03	0.0025

Facility G-03 - 94% Perc
(cont.)

Met Set: McClellan

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	8.95	7.82	3.33	0.0379	1324.96	0.0186
30	25.93	22.66	9.64	0.1097	1554.15	0.0219
40	23.06	20.15	8.58	0.0976	1492.44	0.0210
50	21.36	18.66	7.94	0.0904	1764.81	0.0248
60	16.75	14.64	6.23	0.0709	1581.78	0.0223
80	9.65	8.43	3.59	0.0408	1214.97	0.0171
100	6.29	5.50	2.34	0.0266	1033.69	0.0145
150	2.89	2.53	1.07	0.0122	699.04	0.0098
200	1.66	1.45	0.62	0.0070	517.13	0.0073
250	1.08	0.94	0.40	0.0046	398.9	0.0056
500	0.28	0.24	0.10	0.0012	159.29	0.0022
1000	0.07	0.06	0.03	0.0003	59.42	0.0008

Met Set: Mather

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	11.46	10.01	4.26	0.0485	958.09	0.0135
30	25.06	21.90	9.32	0.1060	1290.22	0.0182
40	20.77	18.15	7.73	0.0879	1240.56	0.0175
50	19.28	16.85	7.17	0.0816	1734.69	0.0244
60	15.76	13.77	5.86	0.0667	1546.97	0.0218
80	9.15	8.00	3.40	0.0387	1057.88	0.0149
100	5.97	5.22	2.22	0.0253	790.98	0.0111
150	2.74	2.39	1.02	0.0116	526.98	0.0074
200	1.57	1.37	0.58	0.0066	374.12	0.0053
250	1.02	0.89	0.38	0.0043	280.03	0.0039
500	0.26	0.23	0.10	0.0011	105.06	0.0015
1000	0.07	0.06	0.03	0.0003	38.59	0.0005

Met Set: Oakland

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	15.58	13.61	5.80	0.0659	1242.49	0.0175
30	24.65	21.54	9.17	0.1043	1456.6	0.0205
40	18.32	16.01	6.81	0.0775	1455.87	0.0205
50	16.79	14.67	6.25	0.0710	1716.38	0.0242
60	15.06	13.16	5.60	0.0637	1622.23	0.0228
80	8.95	7.82	3.33	0.0379	1243.92	0.0175
100	5.91	5.16	2.20	0.0250	981.21	0.0138
150	2.76	2.41	1.03	0.0117	669.93	0.0094
200	1.60	1.40	0.60	0.0068	487.14	0.0069
250	1.05	0.92	0.39	0.0044	367.88	0.0052
500	0.28	0.24	0.10	0.0012	145.98	0.0021
1000	0.07	0.06	0.03	0.0003	53.8	0.0008

Met Set: Redding

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	11.91	10.41	4.43	0.0504	1203.97	0.0169
30	29.23	25.54	10.87	0.1237	1727.12	0.0243
40	25.02	21.86	9.31	0.1059	1517.85	0.0214
50	23.12	20.20	8.60	0.0978	2116.06	0.0298
60	18.67	16.31	6.94	0.0790	1858.14	0.0262
80	10.84	9.47	4.03	0.0459	1510.93	0.0213
100	7.09	6.20	2.64	0.0300	1227.09	0.0173
150	3.27	2.86	1.22	0.0138	776.75	0.0109
200	1.88	1.64	0.70	0.0080	553.96	0.0078
250	1.23	1.07	0.46	0.0052	416.48	0.0059
500	0.32	0.28	0.12	0.0014	158.33	0.0022
1000	0.08	0.07	0.03	0.0003	57.91	0.0008

Facility G-03 - 94% Perc
(cont.)

Met Set: Sacramento

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	12.95	11.32	4.82	0.0548	1295.57	0.0182
30	27.76	24.26	10.33	0.1175	1644.39	0.0231
40	22.81	19.93	8.48	0.0965	1452.28	0.0204
50	21.26	18.58	7.91	0.0900	1884.88	0.0265
60	17.37	15.18	6.46	0.0735	1690.83	0.0238
80	10.12	8.84	3.76	0.0428	1379.12	0.0194
100	6.62	5.78	2.46	0.0280	1135.35	0.0160
150	3.05	2.67	1.13	0.0129	749.73	0.0106
200	1.76	1.54	0.65	0.0074	542.55	0.0076
250	1.14	1.00	0.42	0.0048	411.47	0.0058
500	0.30	0.26	0.11	0.0013	159.01	0.0022
1000	0.08	0.07	0.03	0.0003	58.65	0.0008

Met Set: Anaheim

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	31.15	27.22	11.59	0.1318	1343.62	0.0189
30	57.73	50.44	21.47	0.2443	1964.47	0.0276
40	44.96	39.29	16.72	0.1902	1701.54	0.0239
50	41.98	36.68	15.61	0.1776	2643.73	0.0372
60	35.48	31.00	13.20	0.1501	2497.42	0.0352
80	20.76	18.14	7.72	0.0878	1914.71	0.0269
100	13.59	11.87	5.05	0.0575	1510.1	0.0213
150	6.26	5.47	2.33	0.0265	926.57	0.0130
200	3.60	3.15	1.34	0.0152	632.67	0.0089
250	2.34	2.04	0.87	0.0099	463.72	0.0065
500	0.61	0.53	0.23	0.0026	168.65	0.0024
1000	0.16	0.14	0.06	0.0007	60.83	0.0009

Met Set: Default - 0

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	64.92	27.64	0.3144	2744.96	0.0386
30	64.57	56.42	24.02	0.2732	2385.45	0.0336
40	56.52	49.39	21.02	0.2392	2088.05	0.0294
50	49.84	43.55	18.54	0.2109	1841.40	0.0259
60	44.27	38.69	16.47	0.1873	1635.59	0.0230
80	35.62	31.13	13.25	0.1507	1315.96	0.0185
100	29.32	25.62	10.90	0.1241	1083.10	0.0152
150	19.45	17.00	7.24	0.0823	718.69	0.0101
200	13.97	12.21	5.20	0.0591	516.25	0.0073
250	10.61	9.27	3.94	0.0449	391.81	0.0055
500	4.18	3.66	1.56	0.0177	154.56	0.0022
1000	1.58	1.38	0.59	0.0067	58.40	0.0008

Risk Assessment Summary - 3 Generic Facilities
Multicomponent Impacts - Brake Cleaners - Chronic/Cancer

Facility G-01 - 94% Perc

Met Set: Burbank

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1407
Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	162.66	47.41	20.18	0.2296	12417.79	0.0874
30	86.38	25.18	10.72	0.1219	9254.67	0.0651
40	53.51	15.60	6.64	0.0755	7114.91	0.0501
50	36.43	10.62	4.52	0.0514	5625.45	0.0396
60	26.41	7.70	3.28	0.0373	4555.43	0.0320
80	15.71	4.58	1.95	0.0222	3163.52	0.0223
100	10.41	3.03	1.29	0.0147	2329.10	0.0164
150	4.86	1.42	0.60	0.0069	1281.78	0.0090
200	2.81	0.82	0.35	0.0040	820.22	0.0058
250	1.83	0.53	0.23	0.0026	575.61	0.0040
500	0.48	0.14	0.06	0.0007	189.47	0.0013
1000	0.12	0.03	0.01	0.0002	64.58	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	162.66	0.00	0.00	0.0000	12417.79	0.0000
30	86.38	0.00	0.00	0.0000	9254.67	0.0000
40	53.51	0.00	0.00	0.0000	7114.91	0.0000
50	36.43	0.00	0.00	0.0000	5625.45	0.0000
60	26.41	0.00	0.00	0.0000	4555.43	0.0000
80	15.71	0.00	0.00	0.0000	3163.52	0.0000
100	10.41	0.00	0.00	0.0000	2329.10	0.0000
150	4.86	0.00	0.00	0.0000	1281.78	0.0000
200	2.81	0.00	0.00	0.0000	820.22	0.0000
250	1.83	0.00	0.00	0.0000	575.61	0.0000
500	0.48	0.00	0.00	0.0000	189.47	0.0000
1000	0.12	0.00	0.00	0.0000	64.58	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	162.66	0.00	0.00	0.0000	12417.79	0.0000
30	86.38	0.00	0.00	0.0000	9254.67	0.0000
40	53.51	0.00	0.00	0.0000	7114.91	0.0000
50	36.43	0.00	0.00	0.0000	5625.45	0.0000
60	26.41	0.00	0.00	0.0000	4555.43	0.0000
80	15.71	0.00	0.00	0.0000	3163.52	0.0000
100	10.41	0.00	0.00	0.0000	2329.10	0.0000
150	4.86	0.00	0.00	0.0000	1281.78	0.0000
200	2.81	0.00	0.00	0.0000	820.22	0.0000
250	1.83	0.00	0.00	0.0000	575.61	0.0000
500	0.48	0.00	0.00	0.0000	189.47	0.0000
1000	0.12	0.00	0.00	0.0000	64.58	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	47.41	20.18	0.2296	0.0874
30	25.18	10.72	0.1219	0.0651
40	15.60	6.64	0.0755	0.0501
50	10.62	4.52	0.0514	0.0396
60	7.70	3.28	0.0373	0.0320
80	4.58	1.95	0.0222	0.0223
100	3.03	1.29	0.0147	0.0164
150	1.42	0.60	0.0069	0.0090
200	0.82	0.35	0.0040	0.0058
250	0.53	0.23	0.0026	0.0040
500	0.14	0.06	0.0007	0.0013
1000	0.03	0.01	0.0002	0.0005

Facility G-01 - 55% Perc, 25% MeCl

Met Set: Burbank

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823
Ann Rate [g/s]: 0.0289

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	162.66	27.74	11.81	0.1343	12417.79	0.0511
30	86.38	14.73	6.27	0.0713	9254.67	0.0381
40	53.51	9.12	3.88	0.0442	7114.91	0.0293
50	36.43	6.21	2.64	0.0301	5625.45	0.0231
60	26.41	4.50	1.92	0.0218	4555.43	0.0187
80	15.71	2.68	1.14	0.0130	3163.52	0.0130
100	10.41	1.78	0.76	0.0086	2329.10	0.0096
150	4.86	0.83	0.35	0.0040	1281.78	0.0053
200	2.81	0.48	0.20	0.0023	820.22	0.0034
250	1.83	0.31	0.13	0.0015	575.61	0.0024
500	0.48	0.08	0.03	0.0004	189.47	0.0008
1000	0.12	0.02	0.01	0.0001	64.58	0.0003

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0374
Ann Rate [g/s]: 0.0131

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	162.66	2.13	0.91	0.0007	12417.79	0.0332
30	86.38	1.13	0.48	0.0004	9254.67	0.0247
40	53.51	0.70	0.30	0.0002	7114.91	0.0190
50	36.43	0.48	0.20	0.0002	5625.45	0.0150
60	26.41	0.35	0.15	0.0001	4555.43	0.0122
80	15.71	0.21	0.09	0.0001	3163.52	0.0085
100	10.41	0.14	0.06	4.5E-05	2329.10	0.0062
150	4.86	0.06	0.03	2.1E-05	1281.78	0.0034
200	2.81	0.04	0.02	1.2E-05	820.22	0.0022
250	1.83	0.02	0.01	8.0E-06	575.61	0.0015
500	0.48	0.01	0.00	2.1E-06	189.47	0.0005
1000	0.12	0.00	0.00	5.2E-07	64.58	0.0002

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	162.66	0.00	0.00	0.0000	12417.79	0.0000
30	86.38	0.00	0.00	0.0000	9254.67	0.0000
40	53.51	0.00	0.00	0.0000	7114.91	0.0000
50	36.43	0.00	0.00	0.0000	5625.45	0.0000
60	26.41	0.00	0.00	0.0000	4555.43	0.0000
80	15.71	0.00	0.00	0.0000	3163.52	0.0000
100	10.41	0.00	0.00	0.0000	2329.10	0.0000
150	4.86	0.00	0.00	0.0000	1281.78	0.0000
200	2.81	0.00	0.00	0.0000	820.22	0.0000
250	1.83	0.00	0.00	0.0000	575.61	0.0000
500	0.48	0.00	0.00	0.0000	189.47	0.0000
1000	0.12	0.00	0.00	0.0000	64.58	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	29.87	12.71	0.1350	0.0843
30	15.86	6.75	0.0717	0.0628
40	9.82	4.18	0.0444	0.0483
50	6.69	2.85	0.0302	0.0382
60	4.85	2.06	0.0219	0.0309
80	2.88	1.23	0.0130	0.0215
100	1.91	0.81	0.0086	0.0158
150	0.89	0.38	0.0040	0.0087
200	0.52	0.22	0.0023	0.0056
250	0.34	0.14	0.0015	0.0039
500	0.09	0.04	0.0004	0.0013
1000	0.02	0.01	0.0001	0.0004

Facility G-01 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Burbank

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0210

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	162.66	20.15	8.58	0.0976	12417.79	0.0372
30	86.38	10.70	4.56	0.0518	9254.67	0.0277
40	53.51	6.63	2.82	0.0321	7114.91	0.0213
50	36.43	4.51	1.92	0.0219	5625.45	0.0168
60	26.41	3.27	1.39	0.0158	4555.43	0.0136
80	15.71	1.95	0.83	0.0094	3163.52	0.0095
100	10.41	1.29	0.55	0.0062	2329.10	0.0070
150	4.86	0.60	0.26	0.0029	1281.78	0.0038
200	2.81	0.35	0.15	0.0017	820.22	0.0025
250	1.83	0.23	0.10	0.0011	575.61	0.0017
500	0.48	0.06	0.03	0.0003	189.47	0.0006
1000	0.12	0.01	0.01	0.0001	64.58	0.0002

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0449
Ann Rate [g/s]: 0.0158

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	162.66	2.57	1.09	0.0009	12417.79	0.0398
30	86.38	1.36	0.58	0.0005	9254.67	0.0297
40	53.51	0.85	0.36	0.0003	7114.91	0.0228
50	36.43	0.58	0.25	0.0002	5625.45	0.0180
60	26.41	0.42	0.18	0.0001	4555.43	0.0146
80	15.71	0.25	0.11	0.0001	3163.52	0.0101
100	10.41	0.16	0.07	0.0001	2329.10	0.0075
150	4.86	0.08	0.03	2.6E-05	1281.78	0.0041
200	2.81	0.04	0.02	1.5E-05	820.22	0.0026
250	1.83	0.03	0.01	9.6E-06	575.61	0.0018
500	0.48	0.01	0.00	2.5E-06	189.47	0.0006
1000	0.12	0.00	0.00	6.3E-07	64.58	0.0002

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0299
Ann Rate [g/s]: 0.0105

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	162.66	3.42	1.45	0.0027	12417.79	0.0000
30	86.38	1.81	0.77	0.0014	9254.67	0.0000
40	53.51	1.12	0.48	0.0009	7114.91	0.0000
50	36.43	0.77	0.33	0.0006	5625.45	0.0000
60	26.41	0.55	0.24	0.0004	4555.43	0.0000
80	15.71	0.33	0.14	0.0003	3163.52	0.0000
100	10.41	0.22	0.09	0.0002	2329.10	0.0000
150	4.86	0.10	0.04	0.0001	1281.78	0.0000
200	2.81	0.06	0.03	4.6E-05	820.22	0.0000
250	1.83	0.04	0.02	3.0E-05	575.61	0.0000
500	0.48	0.01	0.00	7.9E-06	189.47	0.0000
1000	0.12	0.00	0.00	2.0E-06	64.58	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	26.14	11.13	0.1011	0.0770
30	13.88	5.91	0.0537	0.0574
40	8.60	3.66	0.0333	0.0441
50	5.85	2.49	0.0226	0.0349
60	4.24	1.81	0.0164	0.0283
80	2.52	1.07	0.0098	0.0196
100	1.67	0.71	0.0065	0.0144
150	0.78	0.33	0.0030	0.0079
200	0.45	0.19	0.0017	0.0051
250	0.29	0.13	0.0011	0.0036
500	0.08	0.03	0.0003	0.0012
1000	0.02	0.01	0.0001	0.0004

Facility G-01 - 55% Perc, 43% TCE

Met Set: Burbank

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823
Ann Rate [g/s]: 0.0289

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	162.66	27.74	11.81	0.1343	12417.79	0.0511
30	86.38	14.73	6.27	0.0713	9254.67	0.0381
40	53.51	9.12	3.88	0.0442	7114.91	0.0293
50	36.43	6.21	2.64	0.0301	5625.45	0.0231
60	26.41	4.50	1.92	0.0218	4555.43	0.0187
80	15.71	2.68	1.14	0.0130	3163.52	0.0130
100	10.41	1.78	0.76	0.0086	2329.10	0.0096
150	4.86	0.83	0.35	0.0040	1281.78	0.0053
200	2.81	0.48	0.20	0.0023	820.22	0.0034
250	1.83	0.31	0.13	0.0015	575.61	0.0024
500	0.48	0.08	0.03	0.0004	189.47	0.0008
1000	0.12	0.02	0.01	0.0001	64.58	0.0003

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	162.66	0.00	0.00	0.0000	12417.79	0.0000
30	86.38	0.00	0.00	0.0000	9254.67	0.0000
40	53.51	0.00	0.00	0.0000	7114.91	0.0000
50	36.43	0.00	0.00	0.0000	5625.45	0.0000
60	26.41	0.00	0.00	0.0000	4555.43	0.0000
80	15.71	0.00	0.00	0.0000	3163.52	0.0000
100	10.41	0.00	0.00	0.0000	2329.10	0.0000
150	4.86	0.00	0.00	0.0000	1281.78	0.0000
200	2.81	0.00	0.00	0.0000	820.22	0.0000
250	1.83	0.00	0.00	0.0000	575.61	0.0000
500	0.48	0.00	0.00	0.0000	189.47	0.0000
1000	0.12	0.00	0.00	0.0000	64.58	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0644
Ann Rate [g/s]: 0.0226

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	162.66	7.35	3.13	0.0057	12417.79	0.0000
30	86.38	3.90	1.66	0.0031	9254.67	0.0000
40	53.51	2.42	1.03	0.0019	7114.91	0.0000
50	36.43	1.65	0.70	0.0013	5625.45	0.0000
60	26.41	1.19	0.51	0.0009	4555.43	0.0000
80	15.71	0.71	0.30	0.0006	3163.52	0.0000
100	10.41	0.47	0.20	0.0004	2329.10	0.0000
150	4.86	0.22	0.09	0.0002	1281.78	0.0000
200	2.81	0.13	0.05	0.0001	820.22	0.0000
250	1.83	0.08	0.04	0.0001	575.61	0.0000
500	0.48	0.02	0.01	1.7E-05	189.47	0.0000
1000	0.12	0.01	0.00	4.2E-06	64.58	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	35.09	14.94	0.1401	0.0511
30	18.63	7.93	0.0744	0.0381
40	11.54	4.91	0.0461	0.0293
50	7.86	3.35	0.0314	0.0231
60	5.70	2.43	0.0227	0.0187
80	3.39	1.44	0.0135	0.0130
100	2.25	0.96	0.0090	0.0096
150	1.05	0.45	0.0042	0.0053
200	0.61	0.26	0.0024	0.0034
250	0.39	0.17	0.0016	0.0024
500	0.10	0.04	0.0004	0.0008
1000	0.03	0.01	0.0001	0.0003

Facility G-01 - 94% Perc

Met Set: Anaheim

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1407
Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	63.84	27.17	0.3091	12413.44	0.0873
30	115.95	33.79	14.39	0.1637	9249.49	0.0651
40	71.59	20.87	8.88	0.1010	7109.62	0.0500
50	48.59	14.16	6.03	0.0686	5620.40	0.0395
60	35.13	10.24	4.36	0.0496	4550.74	0.0320
80	20.81	6.07	2.58	0.0294	3159.60	0.0222
100	13.75	4.01	1.71	0.0194	2325.83	0.0164
150	6.38	1.86	0.79	0.0090	1279.62	0.0090
200	3.67	1.07	0.46	0.0052	818.68	0.0058
250	2.38	0.69	0.30	0.0034	574.45	0.0040
500	0.61	0.18	0.08	0.0009	189.33	0.0013
1000	0.16	0.05	0.02	0.0002	64.55	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	0.00	0.00	0.0000	12413.44	0.0000
30	115.95	0.00	0.00	0.0000	9249.49	0.0000
40	71.59	0.00	0.00	0.0000	7109.62	0.0000
50	48.59	0.00	0.00	0.0000	5620.40	0.0000
60	35.13	0.00	0.00	0.0000	4550.74	0.0000
80	20.81	0.00	0.00	0.0000	3159.60	0.0000
100	13.75	0.00	0.00	0.0000	2325.83	0.0000
150	6.38	0.00	0.00	0.0000	1279.62	0.0000
200	3.67	0.00	0.00	0.0000	818.68	0.0000
250	2.38	0.00	0.00	0.0000	574.45	0.0000
500	0.61	0.00	0.00	0.0000	189.33	0.0000
1000	0.16	0.00	0.00	0.0000	64.55	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	0.00	0.00	0.0000	12413.44	0.0000
30	115.95	0.00	0.00	0.0000	9249.49	0.0000
40	71.59	0.00	0.00	0.0000	7109.62	0.0000
50	48.59	0.00	0.00	0.0000	5620.40	0.0000
60	35.13	0.00	0.00	0.0000	4550.74	0.0000
80	20.81	0.00	0.00	0.0000	3159.60	0.0000
100	13.75	0.00	0.00	0.0000	2325.83	0.0000
150	6.38	0.00	0.00	0.0000	1279.62	0.0000
200	3.67	0.00	0.00	0.0000	818.68	0.0000
250	2.38	0.00	0.00	0.0000	574.45	0.0000
500	0.61	0.00	0.00	0.0000	189.33	0.0000
1000	0.16	0.00	0.00	0.0000	64.55	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	63.84	27.17	0.3091	0.0873
30	33.79	14.39	0.1637	0.0651
40	20.87	8.88	0.1010	0.0500
50	14.16	6.03	0.0686	0.0395
60	10.24	4.36	0.0496	0.0320
80	6.07	2.58	0.0294	0.0222
100	4.01	1.71	0.0194	0.0164
150	1.86	0.79	0.0090	0.0090
200	1.07	0.46	0.0052	0.0058
250	0.69	0.30	0.0034	0.0040
500	0.18	0.08	0.0009	0.0013
1000	0.05	0.02	0.0002	0.0005

Facility G-01 - 55% Perc, 25% MeCl

Met Set: Anaheim

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823
Ann Rate [g/s]: 0.0289

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	37.35	15.90	0.1808	12413.44	0.0511
30	115.95	19.77	8.42	0.0957	9249.49	0.0381
40	71.59	12.21	5.20	0.0591	7109.62	0.0293
50	48.59	8.29	3.53	0.0401	5620.40	0.0231
60	35.13	5.99	2.55	0.0290	4550.74	0.0187
80	20.81	3.55	1.51	0.0172	3159.60	0.0130
100	13.75	2.34	1.00	0.0114	2325.83	0.0096
150	6.38	1.09	0.46	0.0053	1279.62	0.0053
200	3.67	0.63	0.27	0.0030	818.68	0.0034
250	2.38	0.41	0.17	0.0020	574.45	0.0024
500	0.61	0.10	0.04	0.0005	189.33	0.0008
1000	0.16	0.03	0.01	0.0001	64.55	0.0003

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0374
Ann Rate [g/s]: 0.0131

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	2.87	1.22	0.0010	12413.44	0.0332
30	115.95	1.52	0.65	0.0005	9249.49	0.0247
40	71.59	0.94	0.40	0.0003	7109.62	0.0190
50	48.59	0.64	0.27	0.0002	5620.40	0.0150
60	35.13	0.46	0.20	0.0002	4550.74	0.0122
80	20.81	0.27	0.12	0.0001	3159.60	0.0084
100	13.75	0.18	0.08	0.0001	2325.83	0.0062
150	6.38	0.08	0.04	2.8E-05	1279.62	0.0034
200	3.67	0.05	0.02	1.6E-05	818.68	0.0022
250	2.38	0.03	0.01	1.0E-05	574.45	0.0015
500	0.61	0.01	0.00	2.7E-06	189.33	0.0005
1000	0.16	0.00	0.00	7.0E-07	64.55	0.0002

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	0.00	0.00	0.0000	12413.44	0.0000
30	115.95	0.00	0.00	0.0000	9249.49	0.0000
40	71.59	0.00	0.00	0.0000	7109.62	0.0000
50	48.59	0.00	0.00	0.0000	5620.40	0.0000
60	35.13	0.00	0.00	0.0000	4550.74	0.0000
80	20.81	0.00	0.00	0.0000	3159.60	0.0000
100	13.75	0.00	0.00	0.0000	2325.83	0.0000
150	6.38	0.00	0.00	0.0000	1279.62	0.0000
200	3.67	0.00	0.00	0.0000	818.68	0.0000
250	2.38	0.00	0.00	0.0000	574.45	0.0000
500	0.61	0.00	0.00	0.0000	189.33	0.0000
1000	0.16	0.00	0.00	0.0000	64.55	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	40.21	17.12	0.1818	0.0842
30	21.29	9.06	0.0962	0.0628
40	13.14	5.60	0.0594	0.0482
50	8.92	3.80	0.0403	0.0381
60	6.45	2.75	0.0292	0.0309
80	3.82	1.63	0.0173	0.0214
100	2.52	1.07	0.0114	0.0158
150	1.17	0.50	0.0053	0.0087
200	0.67	0.29	0.0030	0.0056
250	0.44	0.19	0.0020	0.0039
500	0.11	0.05	0.0005	0.0013
1000	0.03	0.01	0.0001	0.0004

Facility G-01 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Anaheim

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0210

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	27.14	11.55	0.1314	12413.44	0.0372
30	115.95	14.37	6.12	0.0696	9249.49	0.0277
40	71.59	8.87	3.78	0.0430	7109.62	0.0213
50	48.59	6.02	2.56	0.0292	5620.40	0.0168
60	35.13	4.35	1.85	0.0211	4550.74	0.0136
80	20.81	2.58	1.10	0.0125	3159.60	0.0095
100	13.75	1.70	0.73	0.0083	2325.83	0.0070
150	6.38	0.79	0.34	0.0038	1279.62	0.0038
200	3.67	0.45	0.19	0.0022	818.68	0.0025
250	2.38	0.29	0.13	0.0014	574.45	0.0017
500	0.61	0.08	0.03	0.0004	189.33	0.0006
1000	0.16	0.02	0.01	0.0001	64.55	0.0002

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0449
Ann Rate [g/s]: 0.0158

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	3.46	1.47	0.0012	12413.44	0.0398
30	115.95	1.83	0.78	0.0006	9249.49	0.0297
40	71.59	1.13	0.48	0.0004	7109.62	0.0228
50	48.59	0.77	0.33	0.0003	5620.40	0.0180
60	35.13	0.56	0.24	0.0002	4550.74	0.0146
80	20.81	0.33	0.14	0.0001	3159.60	0.0101
100	13.75	0.22	0.09	0.0001	2325.83	0.0075
150	6.38	0.10	0.04	3.4E-05	1279.62	0.0041
200	3.67	0.06	0.02	1.9E-05	818.68	0.0026
250	2.38	0.04	0.02	1.3E-05	574.45	0.0018
500	0.61	0.01	0.00	3.2E-06	189.33	0.0006
1000	0.16	0.00	0.00	8.4E-07	64.55	0.0002

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0299
Ann Rate [g/s]: 0.0105

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	4.60	1.96	0.0036	12413.44	0.0000
30	115.95	2.43	1.04	0.0019	9249.49	0.0000
40	71.59	1.50	0.64	0.0012	7109.62	0.0000
50	48.59	1.02	0.43	0.0008	5620.40	0.0000
60	35.13	0.74	0.31	0.0006	4550.74	0.0000
80	20.81	0.44	0.19	0.0003	3159.60	0.0000
100	13.75	0.29	0.12	0.0002	2325.83	0.0000
150	6.38	0.13	0.06	0.0001	1279.62	0.0000
200	3.67	0.08	0.03	0.0001	818.68	0.0000
250	2.38	0.05	0.02	3.9E-05	574.45	0.0000
500	0.61	0.01	0.01	1.0E-05	189.33	0.0000
1000	0.16	0.00	0.00	2.6E-06	64.55	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	35.20	14.98	0.1362	0.0770
30	18.63	7.93	0.0721	0.0574
40	11.50	4.90	0.0445	0.0441
50	7.81	3.32	0.0302	0.0349
60	5.65	2.40	0.0218	0.0282
80	3.34	1.42	0.0129	0.0196
100	2.21	0.94	0.0085	0.0144
150	1.03	0.44	0.0040	0.0079
200	0.59	0.25	0.0023	0.0051
250	0.38	0.16	0.0015	0.0036
500	0.10	0.04	0.0004	0.0012
1000	0.03	0.01	0.0001	0.0004

Facility G-01 - 55% Perc, 43% TCE

Met Set: Anaheim

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823
Ann Rate [g/s]: 0.0289

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	37.35	15.90	0.1808	12413.44	0.0511
30	115.95	19.77	8.42	0.0957	9249.49	0.0381
40	71.59	12.21	5.20	0.0591	7109.62	0.0293
50	48.59	8.29	3.53	0.0401	5620.40	0.0231
60	35.13	5.99	2.55	0.0290	4550.74	0.0187
80	20.81	3.55	1.51	0.0172	3159.60	0.0130
100	13.75	2.34	1.00	0.0114	2325.83	0.0096
150	6.38	1.09	0.46	0.0053	1279.62	0.0053
200	3.67	0.63	0.27	0.0030	818.68	0.0034
250	2.38	0.41	0.17	0.0020	574.45	0.0024
500	0.61	0.10	0.04	0.0005	189.33	0.0008
1000	0.16	0.03	0.01	0.0001	64.55	0.0003

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	0.00	0.00	0.0000	12413.44	0.0000
30	115.95	0.00	0.00	0.0000	9249.49	0.0000
40	71.59	0.00	0.00	0.0000	7109.62	0.0000
50	48.59	0.00	0.00	0.0000	5620.40	0.0000
60	35.13	0.00	0.00	0.0000	4550.74	0.0000
80	20.81	0.00	0.00	0.0000	3159.60	0.0000
100	13.75	0.00	0.00	0.0000	2325.83	0.0000
150	6.38	0.00	0.00	0.0000	1279.62	0.0000
200	3.67	0.00	0.00	0.0000	818.68	0.0000
250	2.38	0.00	0.00	0.0000	574.45	0.0000
500	0.61	0.00	0.00	0.0000	189.33	0.0000
1000	0.16	0.00	0.00	0.0000	64.55	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0644
Ann Rate [g/s]: 0.0226

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	219.02	9.90	4.21	0.0077	12413.44	0.0000
30	115.95	5.24	2.23	0.0041	9249.49	0.0000
40	71.59	3.24	1.38	0.0025	7109.62	0.0000
50	48.59	2.20	0.93	0.0017	5620.40	0.0000
60	35.13	1.59	0.68	0.0012	4550.74	0.0000
80	20.81	0.94	0.40	0.0007	3159.60	0.0000
100	13.75	0.62	0.26	0.0005	2325.83	0.0000
150	6.38	0.29	0.12	0.0002	1279.62	0.0000
200	3.67	0.17	0.07	0.0001	818.68	0.0000
250	2.38	0.11	0.05	0.0001	574.45	0.0000
500	0.61	0.03	0.01	2.2E-05	189.33	0.0000
1000	0.16	0.01	0.00	5.7E-06	64.55	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	47.24	20.11	0.1886	0.0511
30	25.01	10.65	0.0998	0.0381
40	15.44	6.57	0.0616	0.0293
50	10.48	4.46	0.0418	0.0231
60	7.58	3.23	0.0302	0.0187
80	4.49	1.91	0.0179	0.0130
100	2.97	1.26	0.0118	0.0096
150	1.38	0.59	0.0055	0.0053
200	0.79	0.34	0.0032	0.0034
250	0.51	0.22	0.0020	0.0024
500	0.13	0.06	0.0005	0.0008
1000	0.03	0.01	0.0001	0.0003

Facility G-01 - 94% Perc

Met Set: Oakland

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1407

Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	26.73	11.38	0.1294	10519.95	0.0740
30	49.17	14.33	6.10	0.0694	8021.08	0.0564
40	30.65	8.93	3.80	0.0433	6281.76	0.0442
50	20.94	6.10	2.60	0.0296	5029.68	0.0354
60	15.22	4.44	1.89	0.0215	4106.19	0.0289
80	9.09	2.65	1.13	0.0128	2877.44	0.0202
100	6.04	1.76	0.75	0.0085	2127.42	0.0150
150	2.83	0.82	0.35	0.0040	1174.14	0.0083
200	1.64	0.48	0.20	0.0023	750.86	0.0053
250	1.07	0.31	0.13	0.0015	526.14	0.0037
500	0.28	0.08	0.03	0.0004	171.69	0.0012
1000	0.07	0.02	0.01	0.0001	57.64	0.0004

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	0.00	0.00	0.0000	10519.95	0.0000
30	49.17	0.00	0.00	0.0000	8021.08	0.0000
40	30.65	0.00	0.00	0.0000	6281.76	0.0000
50	20.94	0.00	0.00	0.0000	5029.68	0.0000
60	15.22	0.00	0.00	0.0000	4106.19	0.0000
80	9.09	0.00	0.00	0.0000	2877.44	0.0000
100	6.04	0.00	0.00	0.0000	2127.42	0.0000
150	2.83	0.00	0.00	0.0000	1174.14	0.0000
200	1.64	0.00	0.00	0.0000	750.86	0.0000
250	1.07	0.00	0.00	0.0000	526.14	0.0000
500	0.28	0.00	0.00	0.0000	171.69	0.0000
1000	0.07	0.00	0.00	0.0000	57.64	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	0.00	0.00	0.0000	10519.95	0.0000
30	49.17	0.00	0.00	0.0000	8021.08	0.0000
40	30.65	0.00	0.00	0.0000	6281.76	0.0000
50	20.94	0.00	0.00	0.0000	5029.68	0.0000
60	15.22	0.00	0.00	0.0000	4106.19	0.0000
80	9.09	0.00	0.00	0.0000	2877.44	0.0000
100	6.04	0.00	0.00	0.0000	2127.42	0.0000
150	2.83	0.00	0.00	0.0000	1174.14	0.0000
200	1.64	0.00	0.00	0.0000	750.86	0.0000
250	1.07	0.00	0.00	0.0000	526.14	0.0000
500	0.28	0.00	0.00	0.0000	171.69	0.0000
1000	0.07	0.00	0.00	0.0000	57.64	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	26.73	11.38	0.1294	0.0740
30	14.33	6.10	0.0694	0.0564
40	8.93	3.80	0.0433	0.0442
50	6.10	2.60	0.0296	0.0354
60	4.44	1.89	0.0215	0.0289
80	2.65	1.13	0.0128	0.0202
100	1.76	0.75	0.0085	0.0150
150	0.82	0.35	0.0040	0.0083
200	0.48	0.20	0.0023	0.0053
250	0.31	0.13	0.0015	0.0037
500	0.08	0.03	0.0004	0.0012
1000	0.02	0.01	0.0001	0.0004

Facility G-01 - 55% Perc, 25% MeCl

Met Set: Oakland

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823
Ann Rate [g/s]: 0.0289

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	15.64	6.66	0.0757	10519.95	0.0433
30	49.17	8.38	3.57	0.0406	8021.08	0.0330
40	30.65	5.23	2.22	0.0253	6281.76	0.0258
50	20.94	3.57	1.52	0.0173	5029.68	0.0207
60	15.22	2.60	1.10	0.0126	4106.19	0.0169
80	9.09	1.55	0.66	0.0075	2877.44	0.0118
100	6.04	1.03	0.44	0.0050	2127.42	0.0088
150	2.83	0.48	0.21	0.0023	1174.14	0.0048
200	1.64	0.28	0.12	0.0014	750.86	0.0031
250	1.07	0.18	0.08	0.0009	526.14	0.0022
500	0.28	0.05	0.02	0.0002	171.69	0.0007
1000	0.07	0.01	0.01	0.0001	57.64	0.0002

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0374
Ann Rate [g/s]: 0.0131

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	1.20	0.51	0.0004	10519.95	0.0281
30	49.17	0.64	0.27	0.0002	8021.08	0.0214
40	30.65	0.40	0.17	0.0001	6281.76	0.0168
50	20.94	0.27	0.12	0.0001	5029.68	0.0134
60	15.22	0.20	0.08	0.0001	4106.19	0.0110
80	9.09	0.12	0.05	4.0E-05	2877.44	0.0077
100	6.04	0.08	0.03	2.6E-05	2127.42	0.0057
150	2.83	0.04	0.02	1.2E-05	1174.14	0.0031
200	1.64	0.02	0.01	7.2E-06	750.86	0.0020
250	1.07	0.01	0.01	4.7E-06	526.14	0.0014
500	0.28	0.00	0.00	1.2E-06	171.69	0.0005
1000	0.07	0.00	0.00	3.1E-07	57.64	0.0002

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	0.00	0.00	0.0000	10519.95	0.0000
30	49.17	0.00	0.00	0.0000	8021.08	0.0000
40	30.65	0.00	0.00	0.0000	6281.76	0.0000
50	20.94	0.00	0.00	0.0000	5029.68	0.0000
60	15.22	0.00	0.00	0.0000	4106.19	0.0000
80	9.09	0.00	0.00	0.0000	2877.44	0.0000
100	6.04	0.00	0.00	0.0000	2127.42	0.0000
150	2.83	0.00	0.00	0.0000	1174.14	0.0000
200	1.64	0.00	0.00	0.0000	750.86	0.0000
250	1.07	0.00	0.00	0.0000	526.14	0.0000
500	0.28	0.00	0.00	0.0000	171.69	0.0000
1000	0.07	0.00	0.00	0.0000	57.64	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	16.84	7.17	0.0761	0.0714
30	9.03	3.84	0.0408	0.0544
40	5.63	2.40	0.0254	0.0426
50	3.84	1.64	0.0174	0.0341
60	2.79	1.19	0.0126	0.0279
80	1.67	0.71	0.0075	0.0195
100	1.11	0.47	0.0050	0.0144
150	0.52	0.22	0.0023	0.0080
200	0.30	0.13	0.0014	0.0051
250	0.20	0.08	0.0009	0.0036
500	0.05	0.02	0.0002	0.0012
1000	0.01	0.01	0.0001	0.0004

Facility G-01 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Oakland

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0210

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	11.36	4.84	0.0550	10519.95	0.0315
30	49.17	6.09	2.59	0.0295	8021.08	0.0240
40	30.65	3.80	1.62	0.0184	6281.76	0.0188
50	20.94	2.59	1.10	0.0126	5029.68	0.0151
60	15.22	1.89	0.80	0.0091	4106.19	0.0123
80	9.09	1.13	0.48	0.0055	2877.44	0.0086
100	6.04	0.75	0.32	0.0036	2127.42	0.0064
150	2.83	0.35	0.15	0.0017	1174.14	0.0035
200	1.64	0.20	0.09	0.0010	750.86	0.0022
250	1.07	0.13	0.06	0.0006	526.14	0.0016
500	0.28	0.03	0.01	0.0002	171.69	0.0005
1000	0.07	0.01	0.00	4.2E-05	57.64	0.0002

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0449
Ann Rate [g/s]: 0.0158

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	1.45	0.62	0.0005	10519.95	0.0337
30	49.17	0.78	0.33	0.0003	8021.08	0.0257
40	30.65	0.48	0.21	0.0002	6281.76	0.0201
50	20.94	0.33	0.14	0.0001	5029.68	0.0161
60	15.22	0.24	0.10	0.0001	4106.19	0.0132
80	9.09	0.14	0.06	4.8E-05	2877.44	0.0092
100	6.04	0.10	0.04	3.2E-05	2127.42	0.0068
150	2.83	0.04	0.02	1.5E-05	1174.14	0.0038
200	1.64	0.03	0.01	8.6E-06	750.86	0.0024
250	1.07	0.02	0.01	5.6E-06	526.14	0.0017
500	0.28	0.00	0.00	1.5E-06	171.69	0.0006
1000	0.07	0.00	0.00	3.7E-07	57.64	0.0002

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0299
Ann Rate [g/s]: 0.0105

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	1.93	0.82	0.0015	10519.95	0.0000
30	49.17	1.03	0.44	0.0008	8021.08	0.0000
40	30.65	0.64	0.27	0.0005	6281.76	0.0000
50	20.94	0.44	0.19	0.0003	5029.68	0.0000
60	15.22	0.32	0.14	0.0002	4106.19	0.0000
80	9.09	0.19	0.08	0.0001	2877.44	0.0000
100	6.04	0.13	0.05	0.0001	2127.42	0.0000
150	2.83	0.06	0.03	4.6E-05	1174.14	0.0000
200	1.64	0.03	0.01	2.7E-05	750.86	0.0000
250	1.07	0.02	0.01	1.8E-05	526.14	0.0000
500	0.28	0.01	0.00	4.6E-06	171.69	0.0000
1000	0.07	0.00	0.00	1.1E-06	57.64	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	14.74	6.27	0.0570	0.0652
30	7.90	3.36	0.0306	0.0497
40	4.93	2.10	0.0191	0.0390
50	3.37	1.43	0.0130	0.0312
60	2.45	1.04	0.0095	0.0255
80	1.46	0.62	0.0057	0.0178
100	0.97	0.41	0.0038	0.0132
150	0.45	0.19	0.0018	0.0073
200	0.26	0.11	0.0010	0.0047
250	0.17	0.07	0.0007	0.0033
500	0.04	0.02	0.0002	0.0011
1000	0.01	0.00	4.4E-05	0.0004

Facility G-01 - 55% Perc, 43% TCE

Met Set: Oakland

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823

Ann Rate [g/s]: 0.0289

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	15.64	6.66	0.0757	10519.95	0.0433
30	49.17	8.38	3.57	0.0406	8021.08	0.0330
40	30.65	5.23	2.22	0.0253	6281.76	0.0258
50	20.94	3.57	1.52	0.0173	5029.68	0.0207
60	15.22	2.60	1.10	0.0126	4106.19	0.0169
80	9.09	1.55	0.66	0.0075	2877.44	0.0118
100	6.04	1.03	0.44	0.0050	2127.42	0.0088
150	2.83	0.48	0.21	0.0023	1174.14	0.0048
200	1.64	0.28	0.12	0.0014	750.86	0.0031
250	1.07	0.18	0.08	0.0009	526.14	0.0022
500	0.28	0.05	0.02	0.0002	171.69	0.0007
1000	0.07	0.01	0.01	0.0001	57.64	0.0002

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	0.00	0.00	0.0000	10519.95	0.0000
30	49.17	0.00	0.00	0.0000	8021.08	0.0000
40	30.65	0.00	0.00	0.0000	6281.76	0.0000
50	20.94	0.00	0.00	0.0000	5029.68	0.0000
60	15.22	0.00	0.00	0.0000	4106.19	0.0000
80	9.09	0.00	0.00	0.0000	2877.44	0.0000
100	6.04	0.00	0.00	0.0000	2127.42	0.0000
150	2.83	0.00	0.00	0.0000	1174.14	0.0000
200	1.64	0.00	0.00	0.0000	750.86	0.0000
250	1.07	0.00	0.00	0.0000	526.14	0.0000
500	0.28	0.00	0.00	0.0000	171.69	0.0000
1000	0.07	0.00	0.00	0.0000	57.64	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0644

Ann Rate [g/s]: 0.0226

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	91.71	4.15	1.76	0.0032	10519.95	0.0000
30	49.17	2.22	0.95	0.0017	8021.08	0.0000
40	30.65	1.39	0.59	0.0011	6281.76	0.0000
50	20.94	0.95	0.40	0.0007	5029.68	0.0000
60	15.22	0.69	0.29	0.0005	4106.19	0.0000
80	9.09	0.41	0.17	0.0003	2877.44	0.0000
100	6.04	0.27	0.12	0.0002	2127.42	0.0000
150	2.83	0.13	0.05	0.0001	1174.14	0.0000
200	1.64	0.07	0.03	0.0001	750.86	0.0000
250	1.07	0.05	0.02	3.8E-05	526.14	0.0000
500	0.28	0.01	0.01	9.9E-06	171.69	0.0000
1000	0.07	0.00	0.00	2.5E-06	57.64	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	19.78	8.42	0.0790	0.0433
30	10.61	4.51	0.0423	0.0330
40	6.61	2.81	0.0264	0.0258
50	4.52	1.92	0.0180	0.0207
60	3.28	1.40	0.0131	0.0169
80	1.96	0.83	0.0078	0.0118
100	1.30	0.55	0.0052	0.0088
150	0.61	0.26	0.0024	0.0048
200	0.35	0.15	0.0014	0.0031
250	0.23	0.10	0.0009	0.0022
500	0.06	0.03	0.0002	0.0007
1000	0.02	0.01	0.0001	0.0002

Facility G-01 - 94% Perc

Met Set: Default -0

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1407

Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	89.49	38.09	0.4334	11342.73	0.0798
30	229.98	67.03	28.53	0.3246	8496.33	0.0598
40	178.09	51.91	22.09	0.2514	6579.11	0.0463
50	141.80	41.33	17.59	0.2001	5238.72	0.0369
60	115.56	33.68	14.34	0.1631	4269.33	0.0300
80	81.09	23.64	10.06	0.1145	2995.85	0.0211
100	60.18	17.54	7.47	0.0849	2223.11	0.0156
150	33.55	9.78	4.16	0.0473	1239.31	0.0087
200	21.63	6.30	2.68	0.0305	799.09	0.0056
250	15.25	4.45	1.89	0.0215	563.57	0.0040
500	5.08	1.48	0.63	0.0072	187.51	0.0013
1000	1.74	0.51	0.22	0.0025	64.26	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	89.49	38.09	0.4334	0.0798
30	67.03	28.53	0.3246	0.0598
40	51.91	22.09	0.2514	0.0463
50	41.33	17.59	0.2001	0.0369
60	33.68	14.34	0.1631	0.0300
80	23.64	10.06	0.1145	0.0211
100	17.54	7.47	0.0849	0.0156
150	9.78	4.16	0.0473	0.0087
200	6.30	2.68	0.0305	0.0056
250	4.45	1.89	0.0215	0.0040
500	1.48	0.63	0.0072	0.0013
1000	0.51	0.22	0.0025	0.0005

Facility G-01 - 55% Perc, 25% MeCl

Met Set: Default -0

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823
Ann Rate [g/s]: 0.0289

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	52.35	22.29	0.2535	11342.73	0.0467
30	229.98	39.21	16.69	0.1899	8496.33	0.0350
40	178.09	30.37	12.93	0.1470	6579.11	0.0271
50	141.80	24.18	10.29	0.1171	5238.72	0.0216
60	115.56	19.70	8.39	0.0954	4269.33	0.0176
80	81.09	13.83	5.89	0.0670	2995.85	0.0123
100	60.18	10.26	4.37	0.0497	2223.11	0.0091
150	33.55	5.72	2.43	0.0277	1239.31	0.0051
200	21.63	3.69	1.57	0.0179	799.09	0.0033
250	15.25	2.60	1.11	0.0126	563.57	0.0023
500	5.08	0.87	0.37	0.0042	187.51	0.0008
1000	1.74	0.30	0.13	0.0014	64.26	0.0003

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0374
Ann Rate [g/s]: 0.0131

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	4.02	1.71	0.0013	11342.73	0.0303
30	229.98	3.01	1.28	0.0010	8496.33	0.0227
40	178.09	2.33	0.99	0.0008	6579.11	0.0176
50	141.80	1.86	0.79	0.0006	5238.72	0.0140
60	115.56	1.51	0.64	0.0005	4269.33	0.0114
80	81.09	1.06	0.45	0.0004	2995.85	0.0080
100	60.18	0.79	0.34	0.0003	2223.11	0.0059
150	33.55	0.44	0.19	0.0001	1239.31	0.0033
200	21.63	0.28	0.12	0.0001	799.09	0.0021
250	15.25	0.20	0.09	0.0001	563.57	0.0015
500	5.08	0.07	0.03	2.2E-05	187.51	0.0005
1000	1.74	0.02	0.01	7.6E-06	64.26	0.0002

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	56.37	24.00	0.2549	0.0770
30	42.23	17.98	0.1909	0.0577
40	32.70	13.92	0.1478	0.0446
50	26.04	11.08	0.1177	0.0356
60	21.22	9.03	0.0959	0.0290
80	14.89	6.34	0.0673	0.0203
100	11.05	4.70	0.0500	0.0151
150	6.16	2.62	0.0278	0.0084
200	3.97	1.69	0.0180	0.0054
250	2.80	1.19	0.0127	0.0038
500	0.93	0.40	0.0042	0.0013
1000	0.32	0.14	0.0014	0.0004

Facility G-01 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Default -0

40% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.0599 | Ann Rate [g/s]: 0.0210

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	38.04	16.19	0.1842	11342.73	0.0340
30	229.98	28.49	12.13	0.1380	8496.33	0.0254
40	178.09	22.06	9.39	0.1069	6579.11	0.0197
50	141.80	17.57	7.48	0.0851	5238.72	0.0157
60	115.56	14.32	6.10	0.0693	4269.33	0.0128
80	81.09	10.05	4.28	0.0487	2995.85	0.0090
100	60.18	7.46	3.17	0.0361	2223.11	0.0067
150	33.55	4.16	1.77	0.0201	1239.31	0.0037
200	21.63	2.68	1.14	0.0130	799.09	0.0024
250	15.25	1.89	0.80	0.0092	563.57	0.0017
500	5.08	0.63	0.27	0.0030	187.51	0.0006
1000	1.74	0.22	0.09	0.0010	64.26	0.0002

30% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0449 | Ann Rate [g/s]: 0.0158

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	4.85	2.07	0.0016	11342.73	0.0364
30	229.98	3.63	1.55	0.0012	8496.33	0.0272
40	178.09	2.81	1.20	0.0009	6579.11	0.0211
50	141.80	2.24	0.95	0.0007	5238.72	0.0168
60	115.56	1.83	0.78	0.0006	4269.33	0.0137
80	81.09	1.28	0.55	0.0004	2995.85	0.0096
100	60.18	0.95	0.40	0.0003	2223.11	0.0071
150	33.55	0.53	0.23	0.0002	1239.31	0.0040
200	21.63	0.34	0.15	0.0001	799.09	0.0026
250	15.25	0.24	0.10	0.0001	563.57	0.0018
500	5.08	0.08	0.03	2.7E-05	187.51	0.0006
1000	1.74	0.03	0.01	9.2E-06	64.26	0.0002

20% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.0299 | Ann Rate [g/s]: 0.0105

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	6.45	2.74	0.0050	11342.73	0.0000
30	229.98	4.83	2.06	0.0038	8496.33	0.0000
40	178.09	3.74	1.59	0.0029	6579.11	0.0000
50	141.80	2.98	1.27	0.0023	5238.72	0.0000
60	115.56	2.43	1.03	0.0019	4269.33	0.0000
80	81.09	1.70	0.72	0.0013	2995.85	0.0000
100	60.18	1.26	0.54	0.0010	2223.11	0.0000
150	33.55	0.70	0.30	0.0006	1239.31	0.0000
200	21.63	0.45	0.19	0.0004	799.09	0.0000
250	15.25	0.32	0.14	0.0003	563.57	0.0000
500	5.08	0.11	0.05	0.0001	187.51	0.0000
1000	1.74	0.04	0.02	2.9E-05	64.26	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	49.34	21.00	0.1909	0.0703
30	36.96	15.73	0.1430	0.0527
40	28.62	12.18	0.1107	0.0408
50	22.79	9.70	0.0882	0.0325
60	18.57	7.91	0.0718	0.0265
80	13.03	5.55	0.0504	0.0186
100	9.67	4.12	0.0374	0.0138
150	5.39	2.29	0.0209	0.0077
200	3.48	1.48	0.0134	0.0050
250	2.45	1.04	0.0095	0.0035
500	0.82	0.35	0.0032	0.0012
1000	0.28	0.12	0.0011	0.0004

Facility G-01 - 55% Perc, 43% TCE

Met Set: Default -0

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823
Ann Rate [g/s]: 0.0289

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	52.35	22.29	0.2535	11342.73	0.0467
30	229.98	39.21	16.69	0.1899	8496.33	0.0350
40	178.09	30.37	12.93	0.1470	6579.11	0.0271
50	141.80	24.18	10.29	0.1171	5238.72	0.0216
60	115.56	19.70	8.39	0.0954	4269.33	0.0176
80	81.09	13.83	5.89	0.0670	2995.85	0.0123
100	60.18	10.26	4.37	0.0497	2223.11	0.0091
150	33.55	5.72	2.43	0.0277	1239.31	0.0051
200	21.63	3.69	1.57	0.0179	799.09	0.0033
250	15.25	2.60	1.11	0.0126	563.57	0.0023
500	5.08	0.87	0.37	0.0042	187.51	0.0008
1000	1.74	0.30	0.13	0.0014	64.26	0.0003

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0644
Ann Rate [g/s]: 0.0226

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	13.88	5.91	0.0108	11342.73	0.0000
30	229.98	10.40	4.43	0.0081	8496.33	0.0000
40	178.09	8.05	3.43	0.0063	6579.11	0.0000
50	141.80	6.41	2.73	0.0050	5238.72	0.0000
60	115.56	5.22	2.22	0.0041	4269.33	0.0000
80	81.09	3.67	1.56	0.0029	2995.85	0.0000
100	60.18	2.72	1.16	0.0021	2223.11	0.0000
150	33.55	1.52	0.65	0.0012	1239.31	0.0000
200	21.63	0.98	0.42	0.0008	799.09	0.0000
250	15.25	0.69	0.29	0.0005	563.57	0.0000
500	5.08	0.23	0.10	0.0002	187.51	0.0000
1000	1.74	0.08	0.03	0.0001	64.26	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	66.23	28.19	0.2644	0.0467
30	49.61	21.12	0.1980	0.0350
40	38.42	16.35	0.1533	0.0271
50	30.59	13.02	0.1221	0.0216
60	24.93	10.61	0.0995	0.0176
80	17.49	7.45	0.0698	0.0123
100	12.98	5.53	0.0518	0.0091
150	7.24	3.08	0.0289	0.0051
200	4.67	1.99	0.0186	0.0033
250	3.29	1.40	0.0131	0.0023
500	1.09	0.47	0.0044	0.0008
1000	0.38	0.16	0.0015	0.0003

Risk Assessment Summary - 3 Generic Facilities
Multicomponent Impacts - Brake Cleaners - Acute

Facility G-01 - 94% Perc

Met Set: Fresno

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1407
Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	130.29	37.97	16.16	0.1839	11155.50	0.0785
30	68.87	20.07	8.54	0.0972	8402.65	0.0591
40	42.46	12.38	5.27	0.0599	6521.95	0.0459
50	28.78	8.39	3.57	0.0406	5186.31	0.0365
60	20.79	6.06	2.58	0.0293	4214.74	0.0297
80	12.29	3.58	1.52	0.0173	2937.50	0.0207
100	8.11	2.36	1.01	0.0114	2165.55	0.0152
150	3.76	1.10	0.47	0.0053	1191.61	0.0084
200	2.16	0.63	0.27	0.0030	761.38	0.0054
250	1.40	0.41	0.17	0.0020	533.41	0.0038
500	0.36	0.10	0.04	0.0005	174.25	0.0012
1000	0.09	0.03	0.01	0.0001	58.67	0.0004

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	130.29	0.00	0.00	0.0000	11155.50	0.0000
30	68.87	0.00	0.00	0.0000	8402.65	0.0000
40	42.46	0.00	0.00	0.0000	6521.95	0.0000
50	28.78	0.00	0.00	0.0000	5186.31	0.0000
60	20.79	0.00	0.00	0.0000	4214.74	0.0000
80	12.29	0.00	0.00	0.0000	2937.50	0.0000
100	8.11	0.00	0.00	0.0000	2165.55	0.0000
150	3.76	0.00	0.00	0.0000	1191.61	0.0000
200	2.16	0.00	0.00	0.0000	761.38	0.0000
250	1.40	0.00	0.00	0.0000	533.41	0.0000
500	0.36	0.00	0.00	0.0000	174.25	0.0000
1000	0.09	0.00	0.00	0.0000	58.67	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	130.29	0.00	0.00	0.0000	11155.50	0.0000
30	68.87	0.00	0.00	0.0000	8402.65	0.0000
40	42.46	0.00	0.00	0.0000	6521.95	0.0000
50	28.78	0.00	0.00	0.0000	5186.31	0.0000
60	20.79	0.00	0.00	0.0000	4214.74	0.0000
80	12.29	0.00	0.00	0.0000	2937.50	0.0000
100	8.11	0.00	0.00	0.0000	2165.55	0.0000
150	3.76	0.00	0.00	0.0000	1191.61	0.0000
200	2.16	0.00	0.00	0.0000	761.38	0.0000
250	1.40	0.00	0.00	0.0000	533.41	0.0000
500	0.36	0.00	0.00	0.0000	174.25	0.0000
1000	0.09	0.00	0.00	0.0000	58.67	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	37.97	16.16	0.1839	0.0785
30	20.07	8.54	0.0972	0.0591
40	12.38	5.27	0.0599	0.0459
50	8.39	3.57	0.0406	0.0365
60	6.06	2.58	0.0293	0.0297
80	3.58	1.52	0.0173	0.0207
100	2.36	1.01	0.0114	0.0152
150	1.10	0.47	0.0053	0.0084
200	0.63	0.27	0.0030	0.0054
250	0.41	0.17	0.0020	0.0038
500	0.10	0.04	0.0005	0.0012
1000	0.03	0.01	0.0001	0.0004

Facility G-01 - 55% Perc, 25% MeCl

Met Set: Fresno

55% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.0823 | Ann Rate [g/s]: 0.0289

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	130.29	22.22	9.46	0.1076	11155.50	0.0459
30	68.87	11.74	5.00	0.0569	8402.65	0.0346
40	42.46	7.24	3.08	0.0351	6521.95	0.0268
50	28.78	4.91	2.09	0.0238	5186.31	0.0213
60	20.79	3.54	1.51	0.0172	4214.74	0.0173
80	12.29	2.10	0.89	0.0101	2937.50	0.0121
100	8.11	1.38	0.59	0.0067	2165.55	0.0089
150	3.76	0.64	0.27	0.0031	1191.61	0.0049
200	2.16	0.37	0.16	0.0018	761.38	0.0031
250	1.40	0.24	0.10	0.0012	533.41	0.0022
500	0.36	0.06	0.03	0.0003	174.25	0.0007
1000	0.09	0.02	0.01	0.0001	58.67	0.0002

25% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0374 | Ann Rate [g/s]: 0.0131

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	130.29	1.71	0.73	0.0006	11155.50	0.0298
30	68.87	0.90	0.38	0.0003	8402.65	0.0224
40	42.46	0.56	0.24	0.0002	6521.95	0.0174
50	28.78	0.38	0.16	0.0001	5186.31	0.0139
60	20.79	0.27	0.12	0.0001	4214.74	0.0113
80	12.29	0.16	0.07	0.0001	2937.50	0.0078
100	8.11	0.11	0.05	3.5E-05	2165.55	0.0058
150	3.76	0.05	0.02	1.6E-05	1191.61	0.0032
200	2.16	0.03	0.01	9.4E-06	761.38	0.0020
250	1.40	0.02	0.01	6.1E-06	533.41	0.0014
500	0.36	0.00	0.00	1.6E-06	174.25	0.0005
1000	0.09	0.00	0.00	3.9E-07	58.67	0.0002

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	130.29	0.00	0.00	0.0000	11155.50	0.0000
30	68.87	0.00	0.00	0.0000	8402.65	0.0000
40	42.46	0.00	0.00	0.0000	6521.95	0.0000
50	28.78	0.00	0.00	0.0000	5186.31	0.0000
60	20.79	0.00	0.00	0.0000	4214.74	0.0000
80	12.29	0.00	0.00	0.0000	2937.50	0.0000
100	8.11	0.00	0.00	0.0000	2165.55	0.0000
150	3.76	0.00	0.00	0.0000	1191.61	0.0000
200	2.16	0.00	0.00	0.0000	761.38	0.0000
250	1.40	0.00	0.00	0.0000	533.41	0.0000
500	0.36	0.00	0.00	0.0000	174.25	0.0000
1000	0.09	0.00	0.00	0.0000	58.67	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	23.92	10.18	0.1082	0.0757
30	12.65	5.38	0.0572	0.0570
40	7.80	3.32	0.0352	0.0443
50	5.28	2.25	0.0239	0.0352
60	3.82	1.62	0.0173	0.0286
80	2.26	0.96	0.0102	0.0199
100	1.49	0.63	0.0067	0.0147
150	0.69	0.29	0.0031	0.0081
200	0.40	0.17	0.0018	0.0052
250	0.26	0.11	0.0012	0.0036
500	0.07	0.03	0.0003	0.0012
1000	0.02	0.01	0.0001	0.0004

Facility G-01 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Fresno

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0210

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	130.29	16.14	6.87	0.0782	11155.50	0.0334
30	68.87	8.53	3.63	0.0413	8402.65	0.0252
40	42.46	5.26	2.24	0.0255	6521.95	0.0195
50	28.78	3.57	1.52	0.0173	5186.31	0.0155
60	20.79	2.58	1.10	0.0125	4214.74	0.0126
80	12.29	1.52	0.65	0.0074	2937.50	0.0088
100	8.11	1.00	0.43	0.0049	2165.55	0.0065
150	3.76	0.47	0.20	0.0023	1191.61	0.0036
200	2.16	0.27	0.11	0.0013	761.38	0.0023
250	1.40	0.17	0.07	0.0008	533.41	0.0016
500	0.36	0.04	0.02	0.0002	174.25	0.0005
1000	0.09	0.01	0.00	0.0001	58.67	0.0002

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0449
Ann Rate [g/s]: 0.0158

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	130.29	2.06	0.88	0.0007	11155.50	0.0358
30	68.87	1.09	0.46	0.0004	8402.65	0.0269
40	42.46	0.67	0.29	0.0002	6521.95	0.0209
50	28.78	0.45	0.19	0.0002	5186.31	0.0166
60	20.79	0.33	0.14	0.0001	4214.74	0.0135
80	12.29	0.19	0.08	0.0001	2937.50	0.0094
100	8.11	0.13	0.05	4.3E-05	2165.55	0.0069
150	3.76	0.06	0.03	2.0E-05	1191.61	0.0038
200	2.16	0.03	0.01	1.1E-05	761.38	0.0024
250	1.40	0.02	0.01	7.4E-06	533.41	0.0017
500	0.36	0.01	0.00	1.9E-06	174.25	0.0006
1000	0.09	0.00	0.00	4.7E-07	58.67	0.0002

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0299
Ann Rate [g/s]: 0.0105

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	130.29	2.74	1.16	0.0021	11155.50	0.0000
30	68.87	1.45	0.62	0.0011	8402.65	0.0000
40	42.46	0.89	0.38	0.0007	6521.95	0.0000
50	28.78	0.60	0.26	0.0005	5186.31	0.0000
60	20.79	0.44	0.19	0.0003	4214.74	0.0000
80	12.29	0.26	0.11	0.0002	2937.50	0.0000
100	8.11	0.17	0.07	0.0001	2165.55	0.0000
150	3.76	0.08	0.03	0.0001	1191.61	0.0000
200	2.16	0.05	0.02	3.5E-05	761.38	0.0000
250	1.40	0.03	0.01	2.3E-05	533.41	0.0000
500	0.36	0.01	0.00	5.9E-06	174.25	0.0000
1000	0.09	0.00	0.00	1.5E-06	58.67	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	20.94	8.91	0.0810	0.0692
30	11.07	4.71	0.0428	0.0521
40	6.82	2.90	0.0264	0.0405
50	4.62	1.97	0.0179	0.0322
60	3.34	1.42	0.0129	0.0261
80	1.98	0.84	0.0076	0.0182
100	1.30	0.55	0.0050	0.0134
150	0.60	0.26	0.0023	0.0074
200	0.35	0.15	0.0013	0.0047
250	0.22	0.10	0.0009	0.0033
500	0.06	0.02	0.0002	0.0011
1000	0.01	0.01	0.0001	0.0004

Facility G-01 - 55% Perc, 43% TCE

Met Set: Fresno

55% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.0823 | Ann Rate [g/s]: 0.0289

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	130.29	22.22	9.46	0.1076	11155.50	0.0459
30	68.87	11.74	5.00	0.0569	8402.65	0.0346
40	42.46	7.24	3.08	0.0351	6521.95	0.0268
50	28.78	4.91	2.09	0.0238	5186.31	0.0213
60	20.79	3.54	1.51	0.0172	4214.74	0.0173
80	12.29	2.10	0.89	0.0101	2937.50	0.0121
100	8.11	1.38	0.59	0.0067	2165.55	0.0089
150	3.76	0.64	0.27	0.0031	1191.61	0.0049
200	2.16	0.37	0.16	0.0018	761.38	0.0031
250	1.40	0.24	0.10	0.0012	533.41	0.0022
500	0.36	0.06	0.03	0.0003	174.25	0.0007
1000	0.09	0.02	0.01	0.0001	58.67	0.0002

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	130.29	0.00	0.00	0.0000	11155.50	0.0000
30	68.87	0.00	0.00	0.0000	8402.65	0.0000
40	42.46	0.00	0.00	0.0000	6521.95	0.0000
50	28.78	0.00	0.00	0.0000	5186.31	0.0000
60	20.79	0.00	0.00	0.0000	4214.74	0.0000
80	12.29	0.00	0.00	0.0000	2937.50	0.0000
100	8.11	0.00	0.00	0.0000	2165.55	0.0000
150	3.76	0.00	0.00	0.0000	1191.61	0.0000
200	2.16	0.00	0.00	0.0000	761.38	0.0000
250	1.40	0.00	0.00	0.0000	533.41	0.0000
500	0.36	0.00	0.00	0.0000	174.25	0.0000
1000	0.09	0.00	0.00	0.0000	58.67	0.0000

43% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.0644 | Ann Rate [g/s]: 0.0226

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	130.29	5.89	2.51	0.0046	11155.50	0.0000
30	68.87	3.11	1.33	0.0024	8402.65	0.0000
40	42.46	1.92	0.82	0.0015	6521.95	0.0000
50	28.78	1.30	0.55	0.0010	5186.31	0.0000
60	20.79	0.94	0.40	0.0007	4214.74	0.0000
80	12.29	0.56	0.24	0.0004	2937.50	0.0000
100	8.11	0.37	0.16	0.0003	2165.55	0.0000
150	3.76	0.17	0.07	0.0001	1191.61	0.0000
200	2.16	0.10	0.04	0.0001	761.38	0.0000
250	1.40	0.06	0.03	4.9E-05	533.41	0.0000
500	0.36	0.02	0.01	1.3E-05	174.25	0.0000
1000	0.09	0.00	0.00	3.2E-06	58.67	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	28.10	11.96	0.1122	0.0459
30	14.86	6.32	0.0593	0.0346
40	9.16	3.90	0.0366	0.0268
50	6.21	2.64	0.0248	0.0213
60	4.48	1.91	0.0179	0.0173
80	2.65	1.13	0.0106	0.0121
100	1.75	0.74	0.0070	0.0089
150	0.81	0.35	0.0032	0.0049
200	0.47	0.20	0.0019	0.0031
250	0.30	0.13	0.0012	0.0022
500	0.08	0.03	0.0003	0.0007
1000	0.02	0.01	0.0001	0.0002

Facility G-01 - 94% Perc

Met Set: Concord

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1407

Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	47.09	20.05	0.2280	12417.79	0.0874
30	86.18	25.12	10.69	0.1216	9254.67	0.0651
40	53.59	15.62	6.65	0.0756	7114.91	0.0501
50	36.58	10.66	4.54	0.0516	5625.45	0.0396
60	26.58	7.75	3.30	0.0375	4555.43	0.0320
80	15.87	4.63	1.97	0.0224	3163.52	0.0223
100	10.55	3.07	1.31	0.0149	2329.10	0.0164
150	4.95	1.44	0.61	0.0070	1281.78	0.0090
200	2.86	0.83	0.35	0.0040	820.22	0.0058
250	1.87	0.55	0.23	0.0026	575.61	0.0040
500	0.49	0.14	0.06	0.0007	189.47	0.0013
1000	0.14	0.04	0.02	0.0002	64.58	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	0.00	0.00	0.0000	12417.79	0.0000
30	86.18	0.00	0.00	0.0000	9254.67	0.0000
40	53.59	0.00	0.00	0.0000	7114.91	0.0000
50	36.58	0.00	0.00	0.0000	5625.45	0.0000
60	26.58	0.00	0.00	0.0000	4555.43	0.0000
80	15.87	0.00	0.00	0.0000	3163.52	0.0000
100	10.55	0.00	0.00	0.0000	2329.10	0.0000
150	4.95	0.00	0.00	0.0000	1281.78	0.0000
200	2.86	0.00	0.00	0.0000	820.22	0.0000
250	1.87	0.00	0.00	0.0000	575.61	0.0000
500	0.49	0.00	0.00	0.0000	189.47	0.0000
1000	0.14	0.00	0.00	0.0000	64.58	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	0.00	0.00	0.0000	12417.79	0.0000
30	86.18	0.00	0.00	0.0000	9254.67	0.0000
40	53.59	0.00	0.00	0.0000	7114.91	0.0000
50	36.58	0.00	0.00	0.0000	5625.45	0.0000
60	26.58	0.00	0.00	0.0000	4555.43	0.0000
80	15.87	0.00	0.00	0.0000	3163.52	0.0000
100	10.55	0.00	0.00	0.0000	2329.10	0.0000
150	4.95	0.00	0.00	0.0000	1281.78	0.0000
200	2.86	0.00	0.00	0.0000	820.22	0.0000
250	1.87	0.00	0.00	0.0000	575.61	0.0000
500	0.49	0.00	0.00	0.0000	189.47	0.0000
1000	0.14	0.00	0.00	0.0000	64.58	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	47.09	20.05	0.2280	0.0874
30	25.12	10.69	0.1216	0.0651
40	15.62	6.65	0.0756	0.0501
50	10.66	4.54	0.0516	0.0396
60	7.75	3.30	0.0375	0.0320
80	4.63	1.97	0.0224	0.0223
100	3.07	1.31	0.0149	0.0164
150	1.44	0.61	0.0070	0.0090
200	0.83	0.35	0.0040	0.0058
250	0.55	0.23	0.0026	0.0040
500	0.14	0.06	0.0007	0.0013
1000	0.04	0.02	0.0002	0.0005

Facility G-01 - 55% Perc, 25% MeCl

Met Set: Concord

55% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.0823 | Ann Rate [g/s]: 0.0289

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	27.55	11.73	0.1334	12417.79	0.0511
30	86.18	14.69	6.26	0.0712	9254.67	0.0381
40	53.59	9.14	3.89	0.0443	7114.91	0.0293
50	36.58	6.24	2.66	0.0302	5625.45	0.0231
60	26.58	4.53	1.93	0.0219	4555.43	0.0187
80	15.87	2.71	1.15	0.0131	3163.52	0.0130
100	10.55	1.80	0.77	0.0087	2329.10	0.0096
150	4.95	0.84	0.36	0.0041	1281.78	0.0053
200	2.86	0.49	0.21	0.0024	820.22	0.0034
250	1.87	0.32	0.14	0.0015	575.61	0.0024
500	0.49	0.08	0.04	0.0004	189.47	0.0008
1000	0.14	0.02	0.01	0.0001	64.58	0.0003

25% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0374 | Ann Rate [g/s]: 0.0131

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	2.12	0.90	0.0007	12417.79	0.0332
30	86.18	1.13	0.48	0.0004	9254.67	0.0247
40	53.59	0.70	0.30	0.0002	7114.91	0.0190
50	36.58	0.48	0.20	0.0002	5625.45	0.0150
60	26.58	0.35	0.15	0.0001	4555.43	0.0122
80	15.87	0.21	0.09	0.0001	3163.52	0.0085
100	10.55	0.14	0.06	4.6E-05	2329.10	0.0062
150	4.95	0.06	0.03	2.2E-05	1281.78	0.0034
200	2.86	0.04	0.02	1.2E-05	820.22	0.0022
250	1.87	0.02	0.01	8.2E-06	575.61	0.0015
500	0.49	0.01	0.00	2.1E-06	189.47	0.0005
1000	0.14	0.00	0.00	6.1E-07	64.58	0.0002

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	0.00	0.00	0.0000	12417.79	0.0000
30	86.18	0.00	0.00	0.0000	9254.67	0.0000
40	53.59	0.00	0.00	0.0000	7114.91	0.0000
50	36.58	0.00	0.00	0.0000	5625.45	0.0000
60	26.58	0.00	0.00	0.0000	4555.43	0.0000
80	15.87	0.00	0.00	0.0000	3163.52	0.0000
100	10.55	0.00	0.00	0.0000	2329.10	0.0000
150	4.95	0.00	0.00	0.0000	1281.78	0.0000
200	2.86	0.00	0.00	0.0000	820.22	0.0000
250	1.87	0.00	0.00	0.0000	575.61	0.0000
500	0.49	0.00	0.00	0.0000	189.47	0.0000
1000	0.14	0.00	0.00	0.0000	64.58	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	29.67	12.63	0.1341	0.0843
30	15.82	6.74	0.0715	0.0628
40	9.84	4.19	0.0445	0.0483
50	6.72	2.86	0.0304	0.0382
60	4.88	2.08	0.0221	0.0309
80	2.91	1.24	0.0132	0.0215
100	1.94	0.82	0.0088	0.0158
150	0.91	0.39	0.0041	0.0087
200	0.53	0.22	0.0024	0.0056
250	0.34	0.15	0.0016	0.0039
500	0.09	0.04	0.0004	0.0013
1000	0.03	0.01	0.0001	0.0004

Facility G-01 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Concord

40% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.0599 | Ann Rate [g/s]: 0.0210

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	20.02	8.52	0.0969	12417.79	0.0372
30	86.18	10.68	4.55	0.0517	9254.67	0.0277
40	53.59	6.64	2.83	0.0322	7114.91	0.0213
50	36.58	4.53	1.93	0.0219	5625.45	0.0168
60	26.58	3.29	1.40	0.0159	4555.43	0.0136
80	15.87	1.97	0.84	0.0095	3163.52	0.0095
100	10.55	1.31	0.56	0.0063	2329.10	0.0070
150	4.95	0.61	0.26	0.0030	1281.78	0.0038
200	2.86	0.35	0.15	0.0017	820.22	0.0025
250	1.87	0.23	0.10	0.0011	575.61	0.0017
500	0.49	0.06	0.03	0.0003	189.47	0.0006
1000	0.14	0.02	0.01	0.0001	64.58	0.0002

30% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0449 | Ann Rate [g/s]: 0.0158

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	2.55	1.09	0.0009	12417.79	0.0398
30	86.18	1.36	0.58	0.0005	9254.67	0.0297
40	53.59	0.85	0.36	0.0003	7114.91	0.0228
50	36.58	0.58	0.25	0.0002	5625.45	0.0180
60	26.58	0.42	0.18	0.0001	4555.43	0.0146
80	15.87	0.25	0.11	0.0001	3163.52	0.0101
100	10.55	0.17	0.07	0.0001	2329.10	0.0075
150	4.95	0.08	0.03	2.6E-05	1281.78	0.0041
200	2.86	0.05	0.02	1.5E-05	820.22	0.0026
250	1.87	0.03	0.01	9.8E-06	575.61	0.0018
500	0.49	0.01	0.00	2.6E-06	189.47	0.0006
1000	0.14	0.00	0.00	7.4E-07	64.58	0.0002

20% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.0299 | Ann Rate [g/s]: 0.0105

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	3.39	1.44	0.0027	12417.79	0.0000
30	86.18	1.81	0.77	0.0014	9254.67	0.0000
40	53.59	1.13	0.48	0.0009	7114.91	0.0000
50	36.58	0.77	0.33	0.0006	5625.45	0.0000
60	26.58	0.56	0.24	0.0004	4555.43	0.0000
80	15.87	0.33	0.14	0.0003	3163.52	0.0000
100	10.55	0.22	0.09	0.0002	2329.10	0.0000
150	4.95	0.10	0.04	0.0001	1281.78	0.0000
200	2.86	0.06	0.03	4.7E-05	820.22	0.0000
250	1.87	0.04	0.02	3.1E-05	575.61	0.0000
500	0.49	0.01	0.00	8.0E-06	189.47	0.0000
1000	0.14	0.00	0.00	2.3E-06	64.58	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	25.96	11.05	0.1004	0.0770
30	13.85	5.90	0.0536	0.0574
40	8.61	3.67	0.0333	0.0441
50	5.88	2.50	0.0227	0.0349
60	4.27	1.82	0.0165	0.0283
80	2.55	1.09	0.0099	0.0196
100	1.70	0.72	0.0066	0.0144
150	0.80	0.34	0.0031	0.0079
200	0.46	0.20	0.0018	0.0051
250	0.30	0.13	0.0012	0.0036
500	0.08	0.03	0.0003	0.0012
1000	0.02	0.01	0.0001	0.0004

Facility G-01 - 55% Perc, 43% TCE

Met Set: Concord

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823
Ann Rate [g/s]: 0.0289

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	27.55	11.73	0.1334	12417.79	0.0511
30	86.18	14.69	6.26	0.0712	9254.67	0.0381
40	53.59	9.14	3.89	0.0443	7114.91	0.0293
50	36.58	6.24	2.66	0.0302	5625.45	0.0231
60	26.58	4.53	1.93	0.0219	4555.43	0.0187
80	15.87	2.71	1.15	0.0131	3163.52	0.0130
100	10.55	1.80	0.77	0.0087	2329.10	0.0096
150	4.95	0.84	0.36	0.0041	1281.78	0.0053
200	2.86	0.49	0.21	0.0024	820.22	0.0034
250	1.87	0.32	0.14	0.0015	575.61	0.0024
500	0.49	0.08	0.04	0.0004	189.47	0.0008
1000	0.14	0.02	0.01	0.0001	64.58	0.0003

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	0.00	0.00	0.0000	12417.79	0.0000
30	86.18	0.00	0.00	0.0000	9254.67	0.0000
40	53.59	0.00	0.00	0.0000	7114.91	0.0000
50	36.58	0.00	0.00	0.0000	5625.45	0.0000
60	26.58	0.00	0.00	0.0000	4555.43	0.0000
80	15.87	0.00	0.00	0.0000	3163.52	0.0000
100	10.55	0.00	0.00	0.0000	2329.10	0.0000
150	4.95	0.00	0.00	0.0000	1281.78	0.0000
200	2.86	0.00	0.00	0.0000	820.22	0.0000
250	1.87	0.00	0.00	0.0000	575.61	0.0000
500	0.49	0.00	0.00	0.0000	189.47	0.0000
1000	0.14	0.00	0.00	0.0000	64.58	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0644
Ann Rate [g/s]: 0.0226

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	161.57	7.30	3.11	0.0057	12417.79	0.0000
30	86.18	3.90	1.66	0.0030	9254.67	0.0000
40	53.59	2.42	1.03	0.0019	7114.91	0.0000
50	36.58	1.65	0.70	0.0013	5625.45	0.0000
60	26.58	1.20	0.51	0.0009	4555.43	0.0000
80	15.87	0.72	0.31	0.0006	3163.52	0.0000
100	10.55	0.48	0.20	0.0004	2329.10	0.0000
150	4.95	0.22	0.10	0.0002	1281.78	0.0000
200	2.86	0.13	0.06	0.0001	820.22	0.0000
250	1.87	0.08	0.04	0.0001	575.61	0.0000
500	0.49	0.02	0.01	1.7E-05	189.47	0.0000
1000	0.14	0.01	0.00	4.9E-06	64.58	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	34.85	14.84	0.1391	0.0511
30	18.59	7.91	0.0742	0.0381
40	11.56	4.92	0.0461	0.0293
50	7.89	3.36	0.0315	0.0231
60	5.73	2.44	0.0229	0.0187
80	3.42	1.46	0.0137	0.0130
100	2.28	0.97	0.0091	0.0096
150	1.07	0.45	0.0043	0.0053
200	0.62	0.26	0.0025	0.0034
250	0.40	0.17	0.0016	0.0024
500	0.11	0.04	0.0004	0.0008
1000	0.03	0.01	0.0001	0.0003

Facility G-01 - 94% Perc

Met Set: Mather

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1407

Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	96.52	28.13	11.98	0.1362	8470.50	0.0596
30	50.95	14.85	6.32	0.0719	5762.29	0.0405
40	31.40	9.15	3.90	0.0443	4464.60	0.0314
50	21.29	6.21	2.64	0.0300	3545.55	0.0249
60	15.38	4.48	1.91	0.0217	2878.60	0.0203
80	9.10	2.65	1.13	0.0128	2004.05	0.0141
100	6.00	1.75	0.74	0.0085	1477.56	0.0104
150	2.78	0.81	0.34	0.0039	819.70	0.0058
200	1.60	0.47	0.20	0.0023	527.32	0.0037
250	1.03	0.30	0.13	0.0015	371.22	0.0026
500	0.27	0.08	0.03	0.0004	122.78	0.0009
1000	0.07	0.02	0.01	0.0001	41.91	0.0003

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	96.52	0.00	0.00	0.0000	8470.50	0.0000
30	50.95	0.00	0.00	0.0000	5762.29	0.0000
40	31.40	0.00	0.00	0.0000	4464.60	0.0000
50	21.29	0.00	0.00	0.0000	3545.55	0.0000
60	15.38	0.00	0.00	0.0000	2878.60	0.0000
80	9.10	0.00	0.00	0.0000	2004.05	0.0000
100	6.00	0.00	0.00	0.0000	1477.56	0.0000
150	2.78	0.00	0.00	0.0000	819.70	0.0000
200	1.60	0.00	0.00	0.0000	527.32	0.0000
250	1.03	0.00	0.00	0.0000	371.22	0.0000
500	0.27	0.00	0.00	0.0000	122.78	0.0000
1000	0.07	0.00	0.00	0.0000	41.91	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	96.52	0.00	0.00	0.0000	8470.50	0.0000
30	50.95	0.00	0.00	0.0000	5762.29	0.0000
40	31.40	0.00	0.00	0.0000	4464.60	0.0000
50	21.29	0.00	0.00	0.0000	3545.55	0.0000
60	15.38	0.00	0.00	0.0000	2878.60	0.0000
80	9.10	0.00	0.00	0.0000	2004.05	0.0000
100	6.00	0.00	0.00	0.0000	1477.56	0.0000
150	2.78	0.00	0.00	0.0000	819.70	0.0000
200	1.60	0.00	0.00	0.0000	527.32	0.0000
250	1.03	0.00	0.00	0.0000	371.22	0.0000
500	0.27	0.00	0.00	0.0000	122.78	0.0000
1000	0.07	0.00	0.00	0.0000	41.91	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	28.13	11.98	0.1362	0.0596
30	14.85	6.32	0.0719	0.0405
40	9.15	3.90	0.0443	0.0314
50	6.21	2.64	0.0300	0.0249
60	4.48	1.91	0.0217	0.0203
80	2.65	1.13	0.0128	0.0141
100	1.75	0.74	0.0085	0.0104
150	0.81	0.34	0.0039	0.0058
200	0.47	0.20	0.0023	0.0037
250	0.30	0.13	0.0015	0.0026
500	0.08	0.03	0.0004	0.0009
1000	0.02	0.01	0.0001	0.0003

Facility G-01 - 55% Perc, 25% MeCl

Met Set: Mather

55% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.0823 | Ann Rate [g/s]: 0.0289

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	96.52	16.46	7.01	0.0797	8470.50	0.0349
30	50.95	8.69	3.70	0.0421	5762.29	0.0237
40	31.40	5.35	2.28	0.0259	4464.60	0.0184
50	21.29	3.63	1.55	0.0176	3545.55	0.0146
60	15.38	2.62	1.12	0.0127	2878.60	0.0118
80	9.10	1.55	0.66	0.0075	2004.05	0.0082
100	6.00	1.02	0.44	0.0050	1477.56	0.0061
150	2.78	0.47	0.20	0.0023	819.70	0.0034
200	1.60	0.27	0.12	0.0013	527.32	0.0022
250	1.03	0.18	0.07	0.0009	371.22	0.0015
500	0.27	0.05	0.02	0.0002	122.78	0.0005
1000	0.07	0.01	0.01	0.0001	41.91	0.0002

25% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0374 | Ann Rate [g/s]: 0.0131

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	96.52	1.26	0.54	0.0004	8470.50	0.0226
30	50.95	0.67	0.28	0.0002	5762.29	0.0154
40	31.40	0.41	0.18	0.0001	4464.60	0.0119
50	21.29	0.28	0.12	0.0001	3545.55	0.0095
60	15.38	0.20	0.09	0.0001	2878.60	0.0077
80	9.10	0.12	0.05	4.0E-05	2004.05	0.0054
100	6.00	0.08	0.03	2.6E-05	1477.56	0.0039
150	2.78	0.04	0.02	1.2E-05	819.70	0.0022
200	1.60	0.02	0.01	7.0E-06	527.32	0.0014
250	1.03	0.01	0.01	4.5E-06	371.22	0.0010
500	0.27	0.00	0.00	1.2E-06	122.78	0.0003
1000	0.07	0.00	0.00	3.1E-07	41.91	1.1E-04

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	96.52	0.00	0.00	0.0000	8470.50	0.0000
30	50.95	0.00	0.00	0.0000	5762.29	0.0000
40	31.40	0.00	0.00	0.0000	4464.60	0.0000
50	21.29	0.00	0.00	0.0000	3545.55	0.0000
60	15.38	0.00	0.00	0.0000	2878.60	0.0000
80	9.10	0.00	0.00	0.0000	2004.05	0.0000
100	6.00	0.00	0.00	0.0000	1477.56	0.0000
150	2.78	0.00	0.00	0.0000	819.70	0.0000
200	1.60	0.00	0.00	0.0000	527.32	0.0000
250	1.03	0.00	0.00	0.0000	371.22	0.0000
500	0.27	0.00	0.00	0.0000	122.78	0.0000
1000	0.07	0.00	0.00	0.0000	41.91	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	17.72	7.54	0.0801	0.0575
30	9.35	3.98	0.0423	0.0391
40	5.77	2.45	0.0261	0.0303
50	3.91	1.66	0.0177	0.0241
60	2.82	1.20	0.0128	0.0195
80	1.67	0.71	0.0076	0.0136
100	1.10	0.47	0.0050	0.0100
150	0.51	0.22	0.0023	0.0056
200	0.29	0.13	0.0013	0.0036
250	0.19	0.08	0.0009	0.0025
500	0.05	0.02	0.0002	0.0008
1000	0.01	0.01	0.0001	0.0003

Facility G-01 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Mather

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0210

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	96.52	11.96	5.09	0.0579	8470.50	0.0254
30	50.95	6.31	2.69	0.0306	5762.29	0.0173
40	31.40	3.89	1.66	0.0188	4464.60	0.0134
50	21.29	2.64	1.12	0.0128	3545.55	0.0106
60	15.38	1.91	0.81	0.0092	2878.60	0.0086
80	9.10	1.13	0.48	0.0055	2004.05	0.0060
100	6.00	0.74	0.32	0.0036	1477.56	0.0044
150	2.78	0.34	0.15	0.0017	819.70	0.0025
200	1.60	0.20	0.08	0.0010	527.32	0.0016
250	1.03	0.13	0.05	0.0006	371.22	0.0011
500	0.27	0.03	0.01	0.0002	122.78	0.0004
1000	0.07	0.01	0.00	4.2E-05	41.91	0.0001

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0449
Ann Rate [g/s]: 0.0158

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	96.52	1.53	0.65	0.0005	8470.50	0.0272
30	50.95	0.81	0.34	0.0003	5762.29	0.0185
40	31.40	0.50	0.21	0.0002	4464.60	0.0143
50	21.29	0.34	0.14	0.0001	3545.55	0.0114
60	15.38	0.24	0.10	0.0001	2878.60	0.0092
80	9.10	0.14	0.06	4.8E-05	2004.05	0.0064
100	6.00	0.09	0.04	3.2E-05	1477.56	0.0047
150	2.78	0.04	0.02	1.5E-05	819.70	0.0026
200	1.60	0.03	0.01	8.4E-06	527.32	0.0017
250	1.03	0.02	0.01	5.4E-06	371.22	0.0012
500	0.27	0.00	0.00	1.4E-06	122.78	0.0004
1000	0.07	0.00	0.00	3.7E-07	41.91	0.0001

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0299
Ann Rate [g/s]: 0.0105

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	96.52	2.03	0.86	0.0016	8470.50	0.0000
30	50.95	1.07	0.46	0.0008	5762.29	0.0000
40	31.40	0.66	0.28	0.0005	4464.60	0.0000
50	21.29	0.45	0.19	0.0003	3545.55	0.0000
60	15.38	0.32	0.14	0.0003	2878.60	0.0000
80	9.10	0.19	0.08	0.0001	2004.05	0.0000
100	6.00	0.13	0.05	0.0001	1477.56	0.0000
150	2.78	0.06	0.02	4.6E-05	819.70	0.0000
200	1.60	0.03	0.01	2.6E-05	527.32	0.0000
250	1.03	0.02	0.01	1.7E-05	371.22	0.0000
500	0.27	0.01	0.00	4.4E-06	122.78	0.0000
1000	0.07	0.00	0.00	1.1E-06	41.91	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	15.51	6.60	0.0600	0.0525
30	8.19	3.49	0.0317	0.0357
40	5.05	2.15	0.0195	0.0277
50	3.42	1.46	0.0132	0.0220
60	2.47	1.05	0.0096	0.0179
80	1.46	0.62	0.0057	0.0124
100	0.96	0.41	0.0037	0.0092
150	0.45	0.19	0.0017	0.0051
200	0.26	0.11	0.0010	0.0033
250	0.17	0.07	0.0006	0.0023
500	0.04	0.02	0.0002	0.0008
1000	0.01	0.00	4.4E-05	0.0003

Facility G-01 - 55% Perc, 43% TCE

Met Set: Mather

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823
Ann Rate [g/s]: 0.0289

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	96.52	16.46	7.01	0.0797	8470.50	0.0349
30	50.95	8.69	3.70	0.0421	5762.29	0.0237
40	31.40	5.35	2.28	0.0259	4464.60	0.0184
50	21.29	3.63	1.55	0.0176	3545.55	0.0146
60	15.38	2.62	1.12	0.0127	2878.60	0.0118
80	9.10	1.55	0.66	0.0075	2004.05	0.0082
100	6.00	1.02	0.44	0.0050	1477.56	0.0061
150	2.78	0.47	0.20	0.0023	819.70	0.0034
200	1.60	0.27	0.12	0.0013	527.32	0.0022
250	1.03	0.18	0.07	0.0009	371.22	0.0015
500	0.27	0.05	0.02	0.0002	122.78	0.0005
1000	0.07	0.01	0.01	0.0001	41.91	0.0002

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	96.52	0.00	0.00	0.0000	8470.50	0.0000
30	50.95	0.00	0.00	0.0000	5762.29	0.0000
40	31.40	0.00	0.00	0.0000	4464.60	0.0000
50	21.29	0.00	0.00	0.0000	3545.55	0.0000
60	15.38	0.00	0.00	0.0000	2878.60	0.0000
80	9.10	0.00	0.00	0.0000	2004.05	0.0000
100	6.00	0.00	0.00	0.0000	1477.56	0.0000
150	2.78	0.00	0.00	0.0000	819.70	0.0000
200	1.60	0.00	0.00	0.0000	527.32	0.0000
250	1.03	0.00	0.00	0.0000	371.22	0.0000
500	0.27	0.00	0.00	0.0000	122.78	0.0000
1000	0.07	0.00	0.00	0.0000	41.91	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0644
Ann Rate [g/s]: 0.0226

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	96.52	4.36	1.86	0.0034	8470.50	0.0000
30	50.95	2.30	0.98	0.0018	5762.29	0.0000
40	31.40	1.42	0.60	0.0011	4464.60	0.0000
50	21.29	0.96	0.41	0.0008	3545.55	0.0000
60	15.38	0.70	0.30	0.0005	2878.60	0.0000
80	9.10	0.41	0.18	0.0003	2004.05	0.0000
100	6.00	0.27	0.12	0.0002	1477.56	0.0000
150	2.78	0.13	0.05	0.0001	819.70	0.0000
200	1.60	0.07	0.03	0.0001	527.32	0.0000
250	1.03	0.05	0.02	3.6E-05	371.22	0.0000
500	0.27	0.01	0.01	9.5E-06	122.78	0.0000
1000	0.07	0.00	0.00	2.5E-06	41.91	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	20.82	8.86	0.0831	0.0349
30	10.99	4.68	0.0439	0.0237
40	6.77	2.88	0.0270	0.0184
50	4.59	1.95	0.0183	0.0146
60	3.32	1.41	0.0132	0.0118
80	1.96	0.84	0.0078	0.0082
100	1.29	0.55	0.0052	0.0061
150	0.60	0.26	0.0024	0.0034
200	0.35	0.15	0.0014	0.0022
250	0.22	0.09	0.0009	0.0015
500	0.06	0.02	0.0002	0.0005
1000	0.02	0.01	0.0001	0.0002

Facility G-01 - 94% Perc

Met Set: Default -0

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1407

Ann Rate [g/s]: 0.0494

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	89.49	38.09	0.4334	11342.73	0.0798
30	229.98	67.03	28.53	0.3246	8496.33	0.0598
40	178.09	51.91	22.09	0.2514	6579.11	0.0463
50	141.80	41.33	17.59	0.2001	5238.72	0.0369
60	115.56	33.68	14.34	0.1631	4269.33	0.0300
80	81.09	23.64	10.06	0.1145	2995.85	0.0211
100	60.18	17.54	7.47	0.0849	2223.11	0.0156
150	33.55	9.78	4.16	0.0473	1239.31	0.0087
200	21.63	6.30	2.68	0.0305	799.09	0.0056
250	15.25	4.45	1.89	0.0215	563.57	0.0040
500	5.08	1.48	0.63	0.0072	187.51	0.0013
1000	1.74	0.51	0.22	0.0025	64.26	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	89.49	38.09	0.4334	0.0798
30	67.03	28.53	0.3246	0.0598
40	51.91	22.09	0.2514	0.0463
50	41.33	17.59	0.2001	0.0369
60	33.68	14.34	0.1631	0.0300
80	23.64	10.06	0.1145	0.0211
100	17.54	7.47	0.0849	0.0156
150	9.78	4.16	0.0473	0.0087
200	6.30	2.68	0.0305	0.0056
250	4.45	1.89	0.0215	0.0040
500	1.48	0.63	0.0072	0.0013
1000	0.51	0.22	0.0025	0.0005

Facility G-01 - 55% Perc, 25% MeCl

Met Set: Default -0

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823
Ann Rate [g/s]: 0.0289

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	52.35	22.29	0.2535	11342.73	0.0467
30	229.98	39.21	16.69	0.1899	8496.33	0.0350
40	178.09	30.37	12.93	0.1470	6579.11	0.0271
50	141.80	24.18	10.29	0.1171	5238.72	0.0216
60	115.56	19.70	8.39	0.0954	4269.33	0.0176
80	81.09	13.83	5.89	0.0670	2995.85	0.0123
100	60.18	10.26	4.37	0.0497	2223.11	0.0091
150	33.55	5.72	2.43	0.0277	1239.31	0.0051
200	21.63	3.69	1.57	0.0179	799.09	0.0033
250	15.25	2.60	1.11	0.0126	563.57	0.0023
500	5.08	0.87	0.37	0.0042	187.51	0.0008
1000	1.74	0.30	0.13	0.0014	64.26	0.0003

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0374
Ann Rate [g/s]: 0.0131

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	4.02	1.71	0.0013	11342.73	0.0303
30	229.98	3.01	1.28	0.0010	8496.33	0.0227
40	178.09	2.33	0.99	0.0008	6579.11	0.0176
50	141.80	1.86	0.79	0.0006	5238.72	0.0140
60	115.56	1.51	0.64	0.0005	4269.33	0.0114
80	81.09	1.06	0.45	0.0004	2995.85	0.0080
100	60.18	0.79	0.34	0.0003	2223.11	0.0059
150	33.55	0.44	0.19	0.0001	1239.31	0.0033
200	21.63	0.28	0.12	0.0001	799.09	0.0021
250	15.25	0.20	0.09	0.0001	563.57	0.0015
500	5.08	0.07	0.03	2.2E-05	187.51	0.0005
1000	1.74	0.02	0.01	7.6E-06	64.26	0.0002

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	56.37	24.00	0.2549	0.0770
30	42.23	17.98	0.1909	0.0577
40	32.70	13.92	0.1478	0.0446
50	26.04	11.08	0.1177	0.0356
60	21.22	9.03	0.0959	0.0290
80	14.89	6.34	0.0673	0.0203
100	11.05	4.70	0.0500	0.0151
150	6.16	2.62	0.0278	0.0084
200	3.97	1.69	0.0180	0.0054
250	2.80	1.19	0.0127	0.0038
500	0.93	0.40	0.0042	0.0013
1000	0.32	0.14	0.0014	0.0004

Facility G-01 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Default -0

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0210

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	38.04	16.19	0.1842	11342.73	0.0340
30	229.98	28.49	12.13	0.1380	8496.33	0.0254
40	178.09	22.06	9.39	0.1069	6579.11	0.0197
50	141.80	17.57	7.48	0.0851	5238.72	0.0157
60	115.56	14.32	6.10	0.0693	4269.33	0.0128
80	81.09	10.05	4.28	0.0487	2995.85	0.0090
100	60.18	7.46	3.17	0.0361	2223.11	0.0067
150	33.55	4.16	1.77	0.0201	1239.31	0.0037
200	21.63	2.68	1.14	0.0130	799.09	0.0024
250	15.25	1.89	0.80	0.0092	563.57	0.0017
500	5.08	0.63	0.27	0.0030	187.51	0.0006
1000	1.74	0.22	0.09	0.0010	64.26	0.0002

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0449
Ann Rate [g/s]: 0.0158

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	4.85	2.07	0.0016	11342.73	0.0364
30	229.98	3.63	1.55	0.0012	8496.33	0.0272
40	178.09	2.81	1.20	0.0009	6579.11	0.0211
50	141.80	2.24	0.95	0.0007	5238.72	0.0168
60	115.56	1.83	0.78	0.0006	4269.33	0.0137
80	81.09	1.28	0.55	0.0004	2995.85	0.0096
100	60.18	0.95	0.40	0.0003	2223.11	0.0071
150	33.55	0.53	0.23	0.0002	1239.31	0.0040
200	21.63	0.34	0.15	0.0001	799.09	0.0026
250	15.25	0.24	0.10	0.0001	563.57	0.0018
500	5.08	0.08	0.03	2.7E-05	187.51	0.0006
1000	1.74	0.03	0.01	9.2E-06	64.26	0.0002

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0299
Ann Rate [g/s]: 0.0105

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	307.03	6.45	2.74	0.0050	11342.73	0.0000
30	229.98	4.83	2.06	0.0038	8496.33	0.0000
40	178.09	3.74	1.59	0.0029	6579.11	0.0000
50	141.80	2.98	1.27	0.0023	5238.72	0.0000
60	115.56	2.43	1.03	0.0019	4269.33	0.0000
80	81.09	1.70	0.72	0.0013	2995.85	0.0000
100	60.18	1.26	0.54	0.0010	2223.11	0.0000
150	33.55	0.70	0.30	0.0006	1239.31	0.0000
200	21.63	0.45	0.19	0.0004	799.09	0.0000
250	15.25	0.32	0.14	0.0003	563.57	0.0000
500	5.08	0.11	0.05	0.0001	187.51	0.0000
1000	1.74	0.04	0.02	2.9E-05	64.26	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	49.34	21.00	0.1909	0.0703
30	36.96	15.73	0.1430	0.0527
40	28.62	12.18	0.1107	0.0408
50	22.79	9.70	0.0882	0.0325
60	18.57	7.91	0.0718	0.0265
80	13.03	5.55	0.0504	0.0186
100	9.67	4.12	0.0374	0.0138
150	5.39	2.29	0.0209	0.0077
200	3.48	1.48	0.0134	0.0050
250	2.45	1.04	0.0095	0.0035
500	0.82	0.35	0.0032	0.0012
1000	0.28	0.12	0.0011	0.0004

Facility G-01 - 55% Perc, 43% TCE

Met Set: Default -0

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0823
Ann Rate [g/s]: 0.0289

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	52.35	22.29	0.2535	11342.73	0.0467
30	229.98	39.21	16.69	0.1899	8496.33	0.0350
40	178.09	30.37	12.93	0.1470	6579.11	0.0271
50	141.80	24.18	10.29	0.1171	5238.72	0.0216
60	115.56	19.70	8.39	0.0954	4269.33	0.0176
80	81.09	13.83	5.89	0.0670	2995.85	0.0123
100	60.18	10.26	4.37	0.0497	2223.11	0.0091
150	33.55	5.72	2.43	0.0277	1239.31	0.0051
200	21.63	3.69	1.57	0.0179	799.09	0.0033
250	15.25	2.60	1.11	0.0126	563.57	0.0023
500	5.08	0.87	0.37	0.0042	187.51	0.0008
1000	1.74	0.30	0.13	0.0014	64.26	0.0003

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0644
Ann Rate [g/s]: 0.0226

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	13.88	5.91	0.0108	11342.73	0.0000
30	229.98	10.40	4.43	0.0081	8496.33	0.0000
40	178.09	8.05	3.43	0.0063	6579.11	0.0000
50	141.80	6.41	2.73	0.0050	5238.72	0.0000
60	115.56	5.22	2.22	0.0041	4269.33	0.0000
80	81.09	3.67	1.56	0.0029	2995.85	0.0000
100	60.18	2.72	1.16	0.0021	2223.11	0.0000
150	33.55	1.52	0.65	0.0012	1239.31	0.0000
200	21.63	0.98	0.42	0.0008	799.09	0.0000
250	15.25	0.69	0.29	0.0005	563.57	0.0000
500	5.08	0.23	0.10	0.0002	187.51	0.0000
1000	1.74	0.08	0.03	0.0001	64.26	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	66.23	28.19	0.2644	0.0467
30	49.61	21.12	0.1980	0.0350
40	38.42	16.35	0.1533	0.0271
50	30.59	13.02	0.1221	0.0216
60	24.93	10.61	0.0995	0.0176
80	17.49	7.45	0.0698	0.0123
100	12.98	5.53	0.0518	0.0091
150	7.24	3.08	0.0289	0.0051
200	4.67	1.99	0.0186	0.0033
250	3.29	1.40	0.0131	0.0023
500	1.09	0.47	0.0044	0.0008
1000	0.38	0.16	0.0015	0.0003

Risk Assessment Summary - 3 Generic Facilities
Multicomponent Impacts - Brake Cleaners - Chronic/Cancer

Facility G-02 - 94% Perc

Met Set: Burbank

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815
Ann Rate [g/s]: 0.1481

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	97.87	85.52	36.40	0.4141	5528.38	0.0778
30	71.96	62.88	26.77	0.3045	4845.41	0.0682
40	46.45	40.59	17.28	0.1965	4048.28	0.0570
50	32.37	28.28	12.04	0.1370	3418.07	0.0481
60	23.83	20.82	8.86	0.1008	2918.05	0.0411
80	14.48	12.65	5.39	0.0613	2193.50	0.0309
100	9.73	8.50	3.62	0.0412	1708.42	0.0240
150	4.64	4.05	1.73	0.0196	1026.40	0.0144
200	2.71	2.37	1.01	0.0115	690.62	0.0097
250	1.77	1.55	0.66	0.0075	500.60	0.0070
500	0.47	0.41	0.17	0.0020	176.69	0.0025
1000	0.12	0.10	0.04	0.0005	62.47	0.0009

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	97.87	0.00	0.00	0.0000	5528.38	0.0000
30	71.96	0.00	0.00	0.0000	4845.41	0.0000
40	46.45	0.00	0.00	0.0000	4048.28	0.0000
50	32.37	0.00	0.00	0.0000	3418.07	0.0000
60	23.83	0.00	0.00	0.0000	2918.05	0.0000
80	14.48	0.00	0.00	0.0000	2193.50	0.0000
100	9.73	0.00	0.00	0.0000	1708.42	0.0000
150	4.64	0.00	0.00	0.0000	1026.40	0.0000
200	2.71	0.00	0.00	0.0000	690.62	0.0000
250	1.77	0.00	0.00	0.0000	500.60	0.0000
500	0.47	0.00	0.00	0.0000	176.69	0.0000
1000	0.12	0.00	0.00	0.0000	62.47	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	97.87	0.00	0.00	0.0000	5528.38	0.0000
30	71.96	0.00	0.00	0.0000	4845.41	0.0000
40	46.45	0.00	0.00	0.0000	4048.28	0.0000
50	32.37	0.00	0.00	0.0000	3418.07	0.0000
60	23.83	0.00	0.00	0.0000	2918.05	0.0000
80	14.48	0.00	0.00	0.0000	2193.50	0.0000
100	9.73	0.00	0.00	0.0000	1708.42	0.0000
150	4.64	0.00	0.00	0.0000	1026.40	0.0000
200	2.71	0.00	0.00	0.0000	690.62	0.0000
250	1.77	0.00	0.00	0.0000	500.60	0.0000
500	0.47	0.00	0.00	0.0000	176.69	0.0000
1000	0.12	0.00	0.00	0.0000	62.47	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	85.52	36.40	0.4141	0.0778
30	62.88	26.77	0.3045	0.0682
40	40.59	17.28	0.1965	0.0570
50	28.28	12.04	0.1370	0.0481
60	20.82	8.86	0.1008	0.0411
80	12.65	5.39	0.0613	0.0309
100	8.50	3.62	0.0412	0.0240
150	4.05	1.73	0.0196	0.0144
200	2.37	1.01	0.0115	0.0097
250	1.55	0.66	0.0075	0.0070
500	0.41	0.17	0.0020	0.0025
1000	0.10	0.04	0.0005	0.0009

Facility G-02 - 55% Perc, 25% MeCl

Met Set: Burbank

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.87	50.06	21.31	0.2424	5528.38	0.0455
30	71.96	36.81	15.67	0.1783	4845.41	0.0399
40	46.45	23.76	10.11	0.1151	4048.28	0.0333
50	32.37	16.56	7.05	0.0802	3418.07	0.0281
60	23.83	12.19	5.19	0.0590	2918.05	0.0240
80	14.48	7.41	3.15	0.0359	2193.50	0.0181
100	9.73	4.98	2.12	0.0241	1708.42	0.0141
150	4.64	2.37	1.01	0.0115	1026.40	0.0085
200	2.71	1.39	0.59	0.0067	690.62	0.0057
250	1.77	0.91	0.39	0.0044	500.60	0.0041
500	0.47	0.24	0.10	0.0012	176.69	0.0015
1000	0.12	0.06	0.03	0.0003	62.47	0.0005

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.87	3.86	1.64	0.0013	5528.38	0.0296
30	71.96	2.84	1.21	0.0009	4845.41	0.0259
40	46.45	1.83	0.78	0.0006	4048.28	0.0217
50	32.37	1.28	0.54	0.0004	3418.07	0.0183
60	23.83	0.94	0.40	0.0003	2918.05	0.0156
80	14.48	0.57	0.24	0.0002	2193.50	0.0117
100	9.73	0.38	0.16	0.0001	1708.42	0.0091
150	4.64	0.18	0.08	0.0001	1026.40	0.0055
200	2.71	0.11	0.05	0.0000	690.62	0.0037
250	1.77	0.07	0.03	0.0000	500.60	0.0027
500	0.47	0.02	0.01	0.0000	176.69	0.0009
1000	0.12	0.00	0.00	0.0000	62.47	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.87	0.00	0.00	0.0000	5528.38	0.0000
30	71.96	0.00	0.00	0.0000	4845.41	0.0000
40	46.45	0.00	0.00	0.0000	4048.28	0.0000
50	32.37	0.00	0.00	0.0000	3418.07	0.0000
60	23.83	0.00	0.00	0.0000	2918.05	0.0000
80	14.48	0.00	0.00	0.0000	2193.50	0.0000
100	9.73	0.00	0.00	0.0000	1708.42	0.0000
150	4.64	0.00	0.00	0.0000	1026.40	0.0000
200	2.71	0.00	0.00	0.0000	690.62	0.0000
250	1.77	0.00	0.00	0.0000	500.60	0.0000
500	0.47	0.00	0.00	0.0000	176.69	0.0000
1000	0.12	0.00	0.00	0.0000	62.47	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	53.92	22.95	0.2437	0.0751
30	39.64	16.88	0.1792	0.0658
40	25.59	10.89	0.1157	0.0550
50	17.83	7.59	0.0806	0.0464
60	13.13	5.59	0.0593	0.0396
80	7.98	3.40	0.0361	0.0298
100	5.36	2.28	0.0242	0.0232
150	2.56	1.09	0.0116	0.0139
200	1.49	0.64	0.0067	0.0094
250	0.98	0.42	0.0044	0.0068
500	0.26	0.11	0.0012	0.0024
1000	0.07	0.03	0.0003	0.0008

Facility G-02 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Burbank

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.87	36.38	15.49	0.1762	5528.38	0.0331
30	71.96	26.75	11.39	0.1295	4845.41	0.0290
40	46.45	17.27	7.35	0.0836	4048.28	0.0242
50	32.37	12.03	5.12	0.0583	3418.07	0.0205
60	23.83	8.86	3.77	0.0429	2918.05	0.0175
80	14.48	5.38	2.29	0.0261	2193.50	0.0131
100	9.73	3.62	1.54	0.0175	1708.42	0.0102
150	4.64	1.72	0.73	0.0084	1026.40	0.0061
200	2.71	1.01	0.43	0.0049	690.62	0.0041
250	1.77	0.66	0.28	0.0032	500.60	0.0030
500	0.47	0.17	0.07	0.0008	176.69	0.0011
1000	0.12	0.04	0.02	0.0002	62.47	0.0004

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.87	4.63	1.97	0.0015	5528.38	0.0355
30	71.96	3.40	1.45	0.0011	4845.41	0.0311
40	46.45	2.20	0.94	0.0007	4048.28	0.0260
50	32.37	1.53	0.65	0.0005	3418.07	0.0219
60	23.83	1.13	0.48	0.0004	2918.05	0.0187
80	14.48	0.68	0.29	0.0002	2193.50	0.0141
100	9.73	0.46	0.20	0.0002	1708.42	0.0110
150	4.64	0.22	0.09	0.0001	1026.40	0.0066
200	2.71	0.13	0.05	4.3E-05	690.62	0.0044
250	1.77	0.08	0.04	2.8E-05	500.60	0.0032
500	0.47	0.02	0.01	7.4E-06	176.69	0.0011
1000	0.12	0.01	0.00	1.9E-06	62.47	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.87	6.17	2.62	0.0048	5528.38	0.0000
30	71.96	4.53	1.93	0.0035	4845.41	0.0000
40	46.45	2.93	1.25	0.0023	4048.28	0.0000
50	32.37	2.04	0.87	0.0016	3418.07	0.0000
60	23.83	1.50	0.64	0.0012	2918.05	0.0000
80	14.48	0.91	0.39	0.0007	2193.50	0.0000
100	9.73	0.61	0.26	0.0005	1708.42	0.0000
150	4.64	0.29	0.12	0.0002	1026.40	0.0000
200	2.71	0.17	0.07	0.0001	690.62	0.0000
250	1.77	0.11	0.05	0.0001	500.60	0.0000
500	0.47	0.03	0.01	0.0	176.69	0.0000
1000	0.12	0.01	0.00	0.0	62.47	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	47.17	20.08	0.1825	0.0686
30	34.68	14.76	0.1342	0.0601
40	22.39	9.53	0.0866	0.0502
50	15.60	6.64	0.0604	0.0424
60	11.49	4.89	0.0444	0.0362
80	6.98	2.97	0.0270	0.0272
100	4.69	2.00	0.0181	0.0212
150	2.24	0.95	0.0087	0.0127
200	1.31	0.56	0.0051	0.0086
250	0.85	0.36	0.0033	0.0062
500	0.23	0.10	0.0009	0.0022
1000	0.06	0.02	0.0002	0.0008

Facility G-02 - 55% Perc, 43% TCE

Met Set: Burbank

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	97.87	50.06	21.31	0.2424	5528.38	0.0455
30	71.96	36.81	15.67	0.1783	4845.41	0.0399
40	46.45	23.76	10.11	0.1151	4048.28	0.0333
50	32.37	16.56	7.05	0.0802	3418.07	0.0281
60	23.83	12.19	5.19	0.0590	2918.05	0.0240
80	14.48	7.41	3.15	0.0359	2193.50	0.0181
100	9.73	4.98	2.12	0.0241	1708.42	0.0141
150	4.64	2.37	1.01	0.0115	1026.40	0.0085
200	2.71	1.39	0.59	0.0067	690.62	0.0057
250	1.77	0.91	0.39	0.0044	500.60	0.0041
500	0.47	0.24	0.10	0.0012	176.69	0.0015
1000	0.12	0.06	0.03	0.0003	62.47	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	97.87	0.00	0.00	0.0000	5528.38	0.0000
30	71.96	0.00	0.00	0.0000	4845.41	0.0000
40	46.45	0.00	0.00	0.0000	4048.28	0.0000
50	32.37	0.00	0.00	0.0000	3418.07	0.0000
60	23.83	0.00	0.00	0.0000	2918.05	0.0000
80	14.48	0.00	0.00	0.0000	2193.50	0.0000
100	9.73	0.00	0.00	0.0000	1708.42	0.0000
150	4.64	0.00	0.00	0.0000	1026.40	0.0000
200	2.71	0.00	0.00	0.0000	690.62	0.0000
250	1.77	0.00	0.00	0.0000	500.60	0.0000
500	0.47	0.00	0.00	0.0000	176.69	0.0000
1000	0.12	0.00	0.00	0.0000	62.47	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	97.87	13.25	5.64	0.0104	5528.38	0.0000
30	71.96	9.74	4.15	0.0076	4845.41	0.0000
40	46.45	6.29	2.68	0.0049	4048.28	0.0000
50	32.37	4.38	1.87	0.0034	3418.07	0.0000
60	23.83	3.23	1.37	0.0025	2918.05	0.0000
80	14.48	1.96	0.83	0.0015	2193.50	0.0000
100	9.73	1.32	0.56	0.0010	1708.42	0.0000
150	4.64	0.63	0.27	0.0005	1026.40	0.0000
200	2.71	0.37	0.16	0.0003	690.62	0.0000
250	1.77	0.24	0.10	0.0002	500.60	0.0000
500	0.47	0.06	0.03	5.0E-05	176.69	0.0000
1000	0.12	0.02	0.01	1.3E-05	62.47	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	63.32	26.95	0.2528	0.0455
30	46.55	19.82	0.1859	0.0399
40	30.05	12.79	0.1200	0.0333
50	20.94	8.91	0.0836	0.0281
60	15.42	6.56	0.0616	0.0240
80	9.37	3.99	0.0374	0.0181
100	6.29	2.68	0.0251	0.0141
150	3.00	1.28	0.0120	0.0085
200	1.75	0.75	0.0070	0.0057
250	1.15	0.49	0.0046	0.0041
500	0.30	0.13	0.0012	0.0015
1000	0.08	0.03	0.0003	0.0005

Facility G-02 - 94% Perc

Met Set: Anaheim

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815

Ann Rate [g/s]: 0.1481

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	125.69	109.83	46.75	0.5318	5444.38	0.0766
30	96.66	84.46	35.95	0.4090	4844.11	0.0682
40	62.33	54.46	23.18	0.2637	4046.70	0.0570
50	43.33	37.86	16.12	0.1833	3416.34	0.0481
60	31.84	27.82	11.84	0.1347	2916.25	0.0410
80	19.26	16.83	7.16	0.0815	2191.72	0.0308
100	12.90	11.27	4.80	0.0546	1706.75	0.0240
150	6.11	5.34	2.27	0.0259	1025.07	0.0144
200	3.55	3.10	1.32	0.0150	689.56	0.0097
250	2.32	2.03	0.86	0.0098	499.75	0.0070
500	0.60	0.52	0.22	0.0025	176.33	0.0025
1000	0.16	0.14	0.06	0.0007	62.42	0.0009

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	125.69	0.00	0.00	0.0000	5444.38	0.0000
30	96.66	0.00	0.00	0.0000	4844.11	0.0000
40	62.33	0.00	0.00	0.0000	4046.70	0.0000
50	43.33	0.00	0.00	0.0000	3416.34	0.0000
60	31.84	0.00	0.00	0.0000	2916.25	0.0000
80	19.26	0.00	0.00	0.0000	2191.72	0.0000
100	12.90	0.00	0.00	0.0000	1706.75	0.0000
150	6.11	0.00	0.00	0.0000	1025.07	0.0000
200	3.55	0.00	0.00	0.0000	689.56	0.0000
250	2.32	0.00	0.00	0.0000	499.75	0.0000
500	0.60	0.00	0.00	0.0000	176.33	0.0000
1000	0.16	0.00	0.00	0.0000	62.42	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	125.69	0.00	0.00	0.0000	5444.38	0.0000
30	96.66	0.00	0.00	0.0000	4844.11	0.0000
40	62.33	0.00	0.00	0.0000	4046.70	0.0000
50	43.33	0.00	0.00	0.0000	3416.34	0.0000
60	31.84	0.00	0.00	0.0000	2916.25	0.0000
80	19.26	0.00	0.00	0.0000	2191.72	0.0000
100	12.90	0.00	0.00	0.0000	1706.75	0.0000
150	6.11	0.00	0.00	0.0000	1025.07	0.0000
200	3.55	0.00	0.00	0.0000	689.56	0.0000
250	2.32	0.00	0.00	0.0000	499.75	0.0000
500	0.60	0.00	0.00	0.0000	176.33	0.0000
1000	0.16	0.00	0.00	0.0000	62.42	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	109.83	46.75	0.5318	0.0766
30	84.46	35.95	0.4090	0.0682
40	54.46	23.18	0.2637	0.0570
50	37.86	16.12	0.1833	0.0481
60	27.82	11.84	0.1347	0.0410
80	16.83	7.16	0.0815	0.0308
100	11.27	4.80	0.0546	0.0240
150	5.34	2.27	0.0259	0.0144
200	3.10	1.32	0.0150	0.0097
250	2.03	0.86	0.0098	0.0070
500	0.52	0.22	0.0025	0.0025
1000	0.14	0.06	0.0007	0.0009

Facility G-02 - 55% Perc, 25% MeCl

Met Set: Anaheim

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	125.69	64.29	27.37	0.3114	5444.38	0.0448
30	96.66	49.44	21.05	0.2394	4844.11	0.0399
40	62.33	31.88	13.57	0.1544	4046.70	0.0333
50	43.33	22.16	9.44	0.1073	3416.34	0.0281
60	31.84	16.29	6.93	0.0789	2916.25	0.0240
80	19.26	9.85	4.19	0.0477	2191.72	0.0180
100	12.90	6.60	2.81	0.0320	1706.75	0.0141
150	6.11	3.13	1.33	0.0151	1025.07	0.0084
200	3.55	1.82	0.77	0.0088	689.56	0.0057
250	2.32	1.19	0.51	0.0057	499.75	0.0041
500	0.60	0.31	0.13	0.0015	176.33	0.0015
1000	0.16	0.08	0.03	0.0004	62.42	0.0005

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	125.69	4.95	2.11	0.0017	5444.38	0.0291
30	96.66	3.81	1.62	0.0013	4844.11	0.0259
40	62.33	2.46	1.05	0.0008	4046.70	0.0216
50	43.33	1.71	0.73	0.0006	3416.34	0.0183
60	31.84	1.25	0.53	0.0004	2916.25	0.0156
80	19.26	0.76	0.32	0.0003	2191.72	0.0117
100	12.90	0.51	0.22	0.0002	1706.75	0.0091
150	6.11	0.24	0.10	0.0001	1025.07	0.0055
200	3.55	0.14	0.06	4.7E-05	689.56	0.0037
250	2.32	0.09	0.04	3.0E-05	499.75	0.0027
500	0.60	0.02	0.01	7.9E-06	176.33	0.0009
1000	0.16	0.01	0.00	2.1E-06	62.42	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	125.69	0.00	0.00	0.0000	5444.38	0.0000
30	96.66	0.00	0.00	0.0000	4844.11	0.0000
40	62.33	0.00	0.00	0.0000	4046.70	0.0000
50	43.33	0.00	0.00	0.0000	3416.34	0.0000
60	31.84	0.00	0.00	0.0000	2916.25	0.0000
80	19.26	0.00	0.00	0.0000	2191.72	0.0000
100	12.90	0.00	0.00	0.0000	1706.75	0.0000
150	6.11	0.00	0.00	0.0000	1025.07	0.0000
200	3.55	0.00	0.00	0.0000	689.56	0.0000
250	2.32	0.00	0.00	0.0000	499.75	0.0000
500	0.60	0.00	0.00	0.0000	176.33	0.0000
1000	0.16	0.00	0.00	0.0000	62.42	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	69.25	29.48	0.3130	0.0740
30	53.25	22.67	0.2407	0.0658
40	34.34	14.62	0.1552	0.0550
50	23.87	10.16	0.1079	0.0464
60	17.54	7.47	0.0793	0.0396
80	10.61	4.52	0.0480	0.0298
100	7.11	3.03	0.0321	0.0232
150	3.37	1.43	0.0152	0.0139
200	1.96	0.83	0.0088	0.0094
250	1.28	0.54	0.0058	0.0068
500	0.33	0.14	0.0015	0.0024
1000	0.09	0.04	0.0004	0.0008

Facility G-02 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Anaheim

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	125.69	46.72	19.89	0.2262	5444.38	0.0326
30	96.66	35.93	15.29	0.1740	4844.11	0.0290
40	62.33	23.17	9.86	0.1122	4046.70	0.0242
50	43.33	16.11	6.86	0.0780	3416.34	0.0205
60	31.84	11.83	5.04	0.0573	2916.25	0.0175
80	19.26	7.16	3.05	0.0347	2191.72	0.0131
100	12.90	4.79	2.04	0.0232	1706.75	0.0102
150	6.11	2.27	0.97	0.0110	1025.07	0.0061
200	3.55	1.32	0.56	0.0064	689.56	0.0041
250	2.32	0.86	0.37	0.0042	499.75	0.0030
500	0.60	0.22	0.09	0.0011	176.33	0.0011
1000	0.16	0.06	0.03	0.0003	62.42	0.0004

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	125.69	5.95	2.53	0.0020	5444.38	0.0349
30	96.66	4.57	1.95	0.0015	4844.11	0.0311
40	62.33	2.95	1.25	0.0010	4046.70	0.0260
50	43.33	2.05	0.87	0.0007	3416.34	0.0219
60	31.84	1.51	0.64	0.0005	2916.25	0.0187
80	19.26	0.91	0.39	0.0003	2191.72	0.0141
100	12.90	0.61	0.26	0.0002	1706.75	0.0109
150	6.11	0.29	0.12	0.0001	1025.07	0.0066
200	3.55	0.17	0.07	0.0001	689.56	0.0044
250	2.32	0.11	0.05	3.7E-05	499.75	0.0032
500	0.60	0.03	0.01	9.5E-06	176.33	0.0011
1000	0.16	0.01	0.00	2.5E-06	62.42	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	125.69	7.92	3.37	0.0062	5444.38	0.0000
30	96.66	6.09	2.59	0.0048	4844.11	0.0000
40	62.33	3.93	1.67	0.0031	4046.70	0.0000
50	43.33	2.73	1.16	0.0021	3416.34	0.0000
60	31.84	2.01	0.85	0.0016	2916.25	0.0000
80	19.26	1.21	0.52	0.0009	2191.72	0.0000
100	12.90	0.81	0.35	0.0006	1706.75	0.0000
150	6.11	0.38	0.16	0.0003	1025.07	0.0000
200	3.55	0.22	0.10	0.0002	689.56	0.0000
250	2.32	0.15	0.06	0.0001	499.75	0.0000
500	0.60	0.04	0.02	3.0E-05	176.33	0.0000
1000	0.16	0.01	0.00	7.9E-06	62.42	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	60.58	25.79	0.2344	0.0675
30	46.59	19.83	0.1803	0.0601
40	30.04	12.79	0.1162	0.0502
50	20.89	8.89	0.0808	0.0424
60	15.35	6.53	0.0594	0.0362
80	9.28	3.95	0.0359	0.0272
100	6.22	2.65	0.0241	0.0212
150	2.95	1.25	0.0114	0.0127
200	1.71	0.73	0.0066	0.0086
250	1.12	0.48	0.0043	0.0062
500	0.29	0.12	0.0011	0.0022
1000	0.08	0.03	0.0003	0.0008

Facility G-02 - 55% Perc, 43% TCE

Met Set: Anaheim

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	125.69	64.29	27.37	0.3114	5444.38	0.0448
30	96.66	49.44	21.05	0.2394	4844.11	0.0399
40	62.33	31.88	13.57	0.1544	4046.70	0.0333
50	43.33	22.16	9.44	0.1073	3416.34	0.0281
60	31.84	16.29	6.93	0.0789	2916.25	0.0240
80	19.26	9.85	4.19	0.0477	2191.72	0.0180
100	12.90	6.60	2.81	0.0320	1706.75	0.0141
150	6.11	3.13	1.33	0.0151	1025.07	0.0084
200	3.55	1.82	0.77	0.0088	689.56	0.0057
250	2.32	1.19	0.51	0.0057	499.75	0.0041
500	0.60	0.31	0.13	0.0015	176.33	0.0015
1000	0.16	0.08	0.03	0.0004	62.42	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	125.69	0.00	0.00	0.0000	5444.38	0.0000
30	96.66	0.00	0.00	0.0000	4844.11	0.0000
40	62.33	0.00	0.00	0.0000	4046.70	0.0000
50	43.33	0.00	0.00	0.0000	3416.34	0.0000
60	31.84	0.00	0.00	0.0000	2916.25	0.0000
80	19.26	0.00	0.00	0.0000	2191.72	0.0000
100	12.90	0.00	0.00	0.0000	1706.75	0.0000
150	6.11	0.00	0.00	0.0000	1025.07	0.0000
200	3.55	0.00	0.00	0.0000	689.56	0.0000
250	2.32	0.00	0.00	0.0000	499.75	0.0000
500	0.60	0.00	0.00	0.0000	176.33	0.0000
1000	0.16	0.00	0.00	0.0000	62.42	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	125.69	17.02	7.24	0.0133	5444.38	0.0000
30	96.66	13.09	5.57	0.0102	4844.11	0.0000
40	62.33	8.44	3.59	0.0066	4046.70	0.0000
50	43.33	5.87	2.50	0.0046	3416.34	0.0000
60	31.84	4.31	1.84	0.0034	2916.25	0.0000
80	19.26	2.61	1.11	0.0020	2191.72	0.0000
100	12.90	1.75	0.74	0.0014	1706.75	0.0000
150	6.11	0.83	0.35	0.0006	1025.07	0.0000
200	3.55	0.48	0.20	0.0004	689.56	0.0000
250	2.32	0.31	0.13	0.0002	499.75	0.0000
500	0.60	0.08	0.03	0.0001	176.33	0.0000
1000	0.16	0.02	0.01	1.7E-05	62.42	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	81.31	34.61	0.3246	0.0448
30	62.53	26.62	0.2497	0.0399
40	40.32	17.16	0.1610	0.0333
50	28.03	11.93	0.1119	0.0281
60	20.60	8.77	0.0822	0.0240
80	12.46	5.30	0.0497	0.0180
100	8.35	3.55	0.0333	0.0141
150	3.95	1.68	0.0158	0.0084
200	2.30	0.98	0.0092	0.0057
250	1.50	0.64	0.0060	0.0041
500	0.39	0.17	0.0015	0.0015
1000	0.10	0.04	0.0004	0.0005

Facility G-02 - 94% Perc

Met Set: Oakland

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815
Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	48.31	42.21	17.97	0.2044	4685.59	0.0659
30	40.60	35.48	15.10	0.1718	4028.18	0.0567
40	26.41	23.08	9.82	0.1118	3439.11	0.0484
50	18.50	16.17	6.88	0.0783	2941.66	0.0414
60	13.67	11.94	5.08	0.0578	2531.88	0.0356
80	8.35	7.30	3.11	0.0353	1940.79	0.0273
100	5.63	4.92	2.09	0.0238	1529.51	0.0215
150	2.70	2.36	1.00	0.0114	931.70	0.0131
200	1.58	1.38	0.59	0.0067	629.79	0.0089
250	1.04	0.91	0.39	0.0044	457.07	0.0064
500	0.28	0.24	0.10	0.0012	160.49	0.0023
1000	0.07	0.06	0.03	0.0003	55.89	0.0008

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	48.31	0.00	0.00	0.0000	4685.59	0.0000
30	40.60	0.00	0.00	0.0000	4028.18	0.0000
40	26.41	0.00	0.00	0.0000	3439.11	0.0000
50	18.50	0.00	0.00	0.0000	2941.66	0.0000
60	13.67	0.00	0.00	0.0000	2531.88	0.0000
80	8.35	0.00	0.00	0.0000	1940.79	0.0000
100	5.63	0.00	0.00	0.0000	1529.51	0.0000
150	2.70	0.00	0.00	0.0000	931.70	0.0000
200	1.58	0.00	0.00	0.0000	629.79	0.0000
250	1.04	0.00	0.00	0.0000	457.07	0.0000
500	0.28	0.00	0.00	0.0000	160.49	0.0000
1000	0.07	0.00	0.00	0.0000	55.89	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	48.31	0.00	0.00	0.0000	4685.59	0.0000
30	40.60	0.00	0.00	0.0000	4028.18	0.0000
40	26.41	0.00	0.00	0.0000	3439.11	0.0000
50	18.50	0.00	0.00	0.0000	2941.66	0.0000
60	13.67	0.00	0.00	0.0000	2531.88	0.0000
80	8.35	0.00	0.00	0.0000	1940.79	0.0000
100	5.63	0.00	0.00	0.0000	1529.51	0.0000
150	2.70	0.00	0.00	0.0000	931.70	0.0000
200	1.58	0.00	0.00	0.0000	629.79	0.0000
250	1.04	0.00	0.00	0.0000	457.07	0.0000
500	0.28	0.00	0.00	0.0000	160.49	0.0000
1000	0.07	0.00	0.00	0.0000	55.89	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	42.21	17.97	0.2044	0.0659
30	35.48	15.10	0.1718	0.0567
40	23.08	9.82	0.1118	0.0484
50	16.17	6.88	0.0783	0.0414
60	11.94	5.08	0.0578	0.0356
80	7.30	3.11	0.0353	0.0273
100	4.92	2.09	0.0238	0.0215
150	2.36	1.00	0.0114	0.0131
200	1.38	0.59	0.0067	0.0089
250	0.91	0.39	0.0044	0.0064
500	0.24	0.10	0.0012	0.0023
1000	0.06	0.03	0.0003	0.0008

Facility G-02 - 55% Perc, 25% MeCl

Met Set: Oakland

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	48.31	24.71	10.52	0.1197	4685.59	0.0386
30	40.60	20.77	8.84	0.1006	4028.18	0.0332
40	26.41	13.51	5.75	0.0654	3439.11	0.0283
50	18.50	9.46	4.03	0.0458	2941.66	0.0242
60	13.67	6.99	2.98	0.0339	2531.88	0.0209
80	8.35	4.27	1.82	0.0207	1940.79	0.0160
100	5.63	2.88	1.23	0.0139	1529.51	0.0126
150	2.70	1.38	0.59	0.0067	931.70	0.0077
200	1.58	0.81	0.34	0.0039	629.79	0.0052
250	1.04	0.53	0.23	0.0026	457.07	0.0038
500	0.28	0.14	0.06	0.0007	160.49	0.0013
1000	0.07	0.04	0.02	0.0002	55.89	0.0005

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	48.31	1.90	0.81	0.0006	4685.59	0.0251
30	40.60	1.60	0.68	0.0005	4028.18	0.0216
40	26.41	1.04	0.44	0.0003	3439.11	0.0184
50	18.50	0.73	0.31	0.0002	2941.66	0.0157
60	13.67	0.54	0.23	0.0002	2531.88	0.0135
80	8.35	0.33	0.14	0.0001	1940.79	0.0104
100	5.63	0.22	0.09	0.0001	1529.51	0.0082
150	2.70	0.11	0.05	3.5E-05	931.70	0.0050
200	1.58	0.06	0.03	2.1E-05	629.79	0.0034
250	1.04	0.04	0.02	1.4E-05	457.07	0.0024
500	0.28	0.01	0.00	3.7E-06	160.49	0.0009
1000	0.07	0.00	0.00	9.2E-07	55.89	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	48.31	0.00	0.00	0.0000	4685.59	0.0000
30	40.60	0.00	0.00	0.0000	4028.18	0.0000
40	26.41	0.00	0.00	0.0000	3439.11	0.0000
50	18.50	0.00	0.00	0.0000	2941.66	0.0000
60	13.67	0.00	0.00	0.0000	2531.88	0.0000
80	8.35	0.00	0.00	0.0000	1940.79	0.0000
100	5.63	0.00	0.00	0.0000	1529.51	0.0000
150	2.70	0.00	0.00	0.0000	931.70	0.0000
200	1.58	0.00	0.00	0.0000	629.79	0.0000
250	1.04	0.00	0.00	0.0000	457.07	0.0000
500	0.28	0.00	0.00	0.0000	160.49	0.0000
1000	0.07	0.00	0.00	0.0000	55.89	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	26.62	11.33	0.1203	0.0637
30	22.37	9.52	0.1011	0.0547
40	14.55	6.19	0.0658	0.0467
50	10.19	4.34	0.0461	0.0400
60	7.53	3.21	0.0340	0.0344
80	4.60	1.96	0.0208	0.0264
100	3.10	1.32	0.0140	0.0208
150	1.49	0.63	0.0067	0.0127
200	0.87	0.37	0.0039	0.0086
250	0.57	0.24	0.0026	0.0062
500	0.15	0.07	0.0007	0.0022
1000	0.04	0.02	0.0002	0.0008

Facility G-02 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Oakland

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	48.31	17.96	7.64	0.0870	4685.59	0.0281
30	40.60	15.09	6.42	0.0731	4028.18	0.0241
40	26.41	9.82	4.18	0.0475	3439.11	0.0206
50	18.50	6.88	2.93	0.0333	2941.66	0.0176
60	13.67	5.08	2.16	0.0246	2531.88	0.0152
80	8.35	3.10	1.32	0.0150	1940.79	0.0116
100	5.63	2.09	0.89	0.0101	1529.51	0.0092
150	2.70	1.00	0.43	0.0049	931.70	0.0056
200	1.58	0.59	0.25	0.0028	629.79	0.0038
250	1.04	0.39	0.16	0.0019	457.07	0.0027
500	0.28	0.10	0.04	0.0005	160.49	0.0010
1000	0.07	0.03	0.01	0.0001	55.89	0.0003

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	48.31	2.29	0.97	0.0008	4685.59	0.0301
30	40.60	1.92	0.82	0.0006	4028.18	0.0258
40	26.41	1.25	0.53	0.0004	3439.11	0.0221
50	18.50	0.88	0.37	0.0003	2941.66	0.0189
60	13.67	0.65	0.28	0.0002	2531.88	0.0162
80	8.35	0.39	0.17	0.0001	1940.79	0.0124
100	5.63	0.27	0.11	0.0001	1529.51	0.0098
150	2.70	0.13	0.05	4.3E-05	931.70	0.0060
200	1.58	0.07	0.03	2.5E-05	629.79	0.0040
250	1.04	0.05	0.02	1.6E-05	457.07	0.0029
500	0.28	0.01	0.01	4.4E-06	160.49	0.0010
1000	0.07	0.00	0.00	1.1E-06	55.89	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	48.31	3.04	1.30	0.0024	4685.59	0.0000
30	40.60	2.56	1.09	0.0020	4028.18	0.0000
40	26.41	1.66	0.71	0.0013	3439.11	0.0000
50	18.50	1.17	0.50	0.0009	2941.66	0.0000
60	13.67	0.86	0.37	0.0007	2531.88	0.0000
80	8.35	0.53	0.22	0.0004	1940.79	0.0000
100	5.63	0.35	0.15	0.0003	1529.51	0.0000
150	2.70	0.17	0.07	0.0001	931.70	0.0000
200	1.58	0.10	0.04	0.0001	629.79	0.0000
250	1.04	0.07	0.03	0.0001	457.07	0.0000
500	0.28	0.02	0.01	1.4E-05	160.49	0.0000
1000	0.07	0.00	0.00	3.4E-06	55.89	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	23.29	9.91	0.0901	0.0581
30	19.57	8.33	0.0757	0.0500
40	12.73	5.42	0.0493	0.0427
50	8.92	3.80	0.0345	0.0365
60	6.59	2.80	0.0255	0.0314
80	4.02	1.71	0.0156	0.0241
100	2.71	1.16	0.0105	0.0190
150	1.30	0.55	0.0050	0.0116
200	0.76	0.32	0.0029	0.0078
250	0.50	0.21	0.0019	0.0057
500	0.13	0.06	0.0005	0.0020
1000	0.03	0.01	0.0001	0.0007

Facility G-02 - 55% Perc, 43% TCE

Met Set: Oakland

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	48.31	24.71	10.52	0.1197	4685.59	0.0386
30	40.60	20.77	8.84	0.1006	4028.18	0.0332
40	26.41	13.51	5.75	0.0654	3439.11	0.0283
50	18.50	9.46	4.03	0.0458	2941.66	0.0242
60	13.67	6.99	2.98	0.0339	2531.88	0.0209
80	8.35	4.27	1.82	0.0207	1940.79	0.0160
100	5.63	2.88	1.23	0.0139	1529.51	0.0126
150	2.70	1.38	0.59	0.0067	931.70	0.0077
200	1.58	0.81	0.34	0.0039	629.79	0.0052
250	1.04	0.53	0.23	0.0026	457.07	0.0038
500	0.28	0.14	0.06	0.0007	160.49	0.0013
1000	0.07	0.04	0.02	0.0002	55.89	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	48.31	0.00	0.00	0.0000	4685.59	0.0000
30	40.60	0.00	0.00	0.0000	4028.18	0.0000
40	26.41	0.00	0.00	0.0000	3439.11	0.0000
50	18.50	0.00	0.00	0.0000	2941.66	0.0000
60	13.67	0.00	0.00	0.0000	2531.88	0.0000
80	8.35	0.00	0.00	0.0000	1940.79	0.0000
100	5.63	0.00	0.00	0.0000	1529.51	0.0000
150	2.70	0.00	0.00	0.0000	931.70	0.0000
200	1.58	0.00	0.00	0.0000	629.79	0.0000
250	1.04	0.00	0.00	0.0000	457.07	0.0000
500	0.28	0.00	0.00	0.0000	160.49	0.0000
1000	0.07	0.00	0.00	0.0000	55.89	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	48.31	6.54	2.78	0.0051	4685.59	0.0000
30	40.60	5.50	2.34	0.0043	4028.18	0.0000
40	26.41	3.58	1.52	0.0028	3439.11	0.0000
50	18.50	2.50	1.07	0.0020	2941.66	0.0000
60	13.67	1.85	0.79	0.0014	2531.88	0.0000
80	8.35	1.13	0.48	0.0009	1940.79	0.0000
100	5.63	0.76	0.32	0.0006	1529.51	0.0000
150	2.70	0.37	0.16	0.0003	931.70	0.0000
200	1.58	0.21	0.09	0.0002	629.79	0.0000
250	1.04	0.14	0.06	0.0001	457.07	0.0000
500	0.28	0.04	0.02	3.0E-05	160.49	0.0000
1000	0.07	0.01	0.00	7.4E-06	55.89	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	31.25	13.30	0.1248	0.0386
30	26.27	11.18	0.1049	0.0332
40	17.09	7.27	0.0682	0.0283
50	11.97	5.09	0.0478	0.0242
60	8.84	3.76	0.0353	0.0209
80	5.40	2.30	0.0216	0.0160
100	3.64	1.55	0.0145	0.0126
150	1.75	0.74	0.0070	0.0077
200	1.02	0.44	0.0041	0.0052
250	0.67	0.29	0.0027	0.0038
500	0.18	0.08	0.0007	0.0013
1000	0.05	0.02	0.0002	0.0005

Facility G-02 - 94% Perc

Met Set: Default -0

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815
Ann Rate [g/s]: 0.1481

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	124.80	53.13	0.6044	5276.51	0.0743
30	117.98	103.09	43.88	0.4992	4358.64	0.0613
40	98.78	86.31	36.74	0.4180	3649.09	0.0514
50	83.77	73.20	31.16	0.3545	3094.79	0.0436
60	71.89	62.82	26.74	0.3042	2656.01	0.0374
80	54.62	47.72	20.31	0.2311	2017.70	0.0284
100	42.94	37.52	15.97	0.1817	1586.22	0.0223
150	26.25	22.94	9.76	0.1111	969.72	0.0136
200	17.86	15.61	6.64	0.0756	659.99	0.0093
250	13.05	11.40	4.85	0.0552	482.19	0.0068
500	4.69	4.10	1.75	0.0199	173.33	0.0024
1000	1.68	1.46	0.62	0.0071	61.90	0.0009

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	124.80	53.13	0.6044	0.0743
30	103.09	43.88	0.4992	0.0613
40	86.31	36.74	0.4180	0.0514
50	73.20	31.16	0.3545	0.0436
60	62.82	26.74	0.3042	0.0374
80	47.72	20.31	0.2311	0.0284
100	37.52	15.97	0.1817	0.0223
150	22.94	9.76	0.1111	0.0136
200	15.61	6.64	0.0756	0.0093
250	11.40	4.85	0.0552	0.0068
500	4.10	1.75	0.0199	0.0024
1000	1.46	0.62	0.0071	0.0009

Facility G-02 - 55% Perc, 25% MeCl

Met Set: Default -0

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	73.06	31.10	0.3538	5276.51	0.0435
30	117.98	60.35	25.69	0.2923	4358.64	0.0359
40	98.78	50.53	21.51	0.2447	3649.09	0.0301
50	83.77	42.85	18.24	0.2075	3094.79	0.0255
60	71.89	36.78	15.65	0.1781	2656.01	0.0219
80	54.62	27.94	11.89	0.1353	2017.70	0.0166
100	42.94	21.96	9.35	0.1064	1586.22	0.0131
150	26.25	13.43	5.72	0.0650	969.72	0.0080
200	17.86	9.14	3.89	0.0443	659.99	0.0054
250	13.05	6.68	2.84	0.0323	482.19	0.0040
500	4.69	2.40	1.02	0.0116	173.33	0.0014
1000	1.68	0.86	0.36	0.0042	61.90	0.0005

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	5.63	2.40	0.0019	5276.51	0.0282
30	117.98	4.65	1.98	0.0015	4358.64	0.0233
40	98.78	3.89	1.66	0.0013	3649.09	0.0195
50	83.77	3.30	1.40	0.0011	3094.79	0.0166
60	71.89	2.83	1.21	0.0009	2656.01	0.0142
80	54.62	2.15	0.92	0.0007	2017.70	0.0108
100	42.94	1.69	0.72	0.0006	1586.22	0.0085
150	26.25	1.03	0.44	0.0003	969.72	0.0052
200	17.86	0.70	0.30	0.0002	659.99	0.0035
250	13.05	0.51	0.22	0.0002	482.19	0.0026
500	4.69	0.18	0.08	0.0001	173.33	0.0009
1000	1.68	0.07	0.03	2.2E-05	61.90	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	78.69	33.50	0.3557	0.0717
30	65.00	27.67	0.2938	0.0592
40	54.42	23.16	0.2460	0.0496
50	46.15	19.65	0.2086	0.0420
60	39.61	16.86	0.1790	0.0361
80	30.09	12.81	0.1360	0.0274
100	23.66	10.07	0.1069	0.0215
150	14.46	6.16	0.0654	0.0132
200	9.84	4.19	0.0445	0.0090
250	7.19	3.06	0.0325	0.0066
500	2.58	1.10	0.0117	0.0024
1000	0.92	0.39	0.0042	0.0008

Facility G-02 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Default -0

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	53.09	22.60	0.2571	5276.51	0.0316
30	117.98	43.85	18.67	0.2124	4358.64	0.0261
40	98.78	36.71	15.63	0.1778	3649.09	0.0219
50	83.77	31.14	13.25	0.1508	3094.79	0.0185
60	71.89	26.72	11.38	0.1294	2656.01	0.0159
80	54.62	20.30	8.64	0.0983	2017.70	0.0121
100	42.94	15.96	6.79	0.0773	1586.22	0.0095
150	26.25	9.76	4.15	0.0472	969.72	0.0058
200	17.86	6.64	2.83	0.0322	659.99	0.0040
250	13.05	4.85	2.07	0.0235	482.19	0.0029
500	4.69	1.74	0.74	0.0084	173.33	0.0010
1000	1.68	0.62	0.27	0.0030	61.90	0.0004

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	6.76	2.88	0.0023	5276.51	0.0338
30	117.98	5.58	2.38	0.0019	4358.64	0.0280
40	98.78	4.67	1.99	0.0016	3649.09	0.0234
50	83.77	3.96	1.69	0.0013	3094.79	0.0199
60	71.89	3.40	1.45	0.0011	2656.01	0.0170
80	54.62	2.58	1.10	0.0009	2017.70	0.0129
100	42.94	2.03	0.86	0.0007	1586.22	0.0102
150	26.25	1.24	0.53	0.0004	969.72	0.0062
200	17.86	0.85	0.36	0.0003	659.99	0.0042
250	13.05	0.62	0.26	0.0002	482.19	0.0031
500	4.69	0.22	0.09	0.0001	173.33	0.0011
1000	1.68	0.08	0.03	2.6E-05	61.90	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	9.00	3.83	0.0070	5276.51	0.0000
30	117.98	7.43	3.16	0.0058	4358.64	0.0000
40	98.78	6.22	2.65	0.0049	3649.09	0.0000
50	83.77	5.28	2.25	0.0041	3094.79	0.0000
60	71.89	4.53	1.93	0.0035	2656.01	0.0000
80	54.62	3.44	1.46	0.0027	2017.70	0.0000
100	42.94	2.71	1.15	0.0021	1586.22	0.0000
150	26.25	1.65	0.70	0.0013	969.72	0.0000
200	17.86	1.13	0.48	0.0009	659.99	0.0000
250	13.05	0.82	0.35	0.0006	482.19	0.0000
500	4.69	0.30	0.13	0.0002	173.33	0.0000
1000	1.68	0.11	0.04	0.0001	61.90	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	68.84	29.30	0.2664	0.0655
30	56.87	24.21	0.2200	0.0541
40	47.61	20.27	0.1842	0.0453
50	40.38	17.19	0.1562	0.0384
60	34.65	14.75	0.1341	0.0329
80	26.32	11.21	0.1019	0.0250
100	20.70	8.81	0.0801	0.0197
150	12.65	5.39	0.0490	0.0120
200	8.61	3.67	0.0333	0.0082
250	6.29	2.68	0.0243	0.0060
500	2.26	0.96	0.0088	0.0022
1000	0.81	0.34	0.0031	0.0008

Facility G-02 - 55% Perc, 43% TCE

Met Set: Default -0

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	73.06	31.10	0.3538	5276.51	0.0435
30	117.98	60.35	25.69	0.2923	4358.64	0.0359
40	98.78	50.53	21.51	0.2447	3649.09	0.0301
50	83.77	42.85	18.24	0.2075	3094.79	0.0255
60	71.89	36.78	15.65	0.1781	2656.01	0.0219
80	54.62	27.94	11.89	0.1353	2017.70	0.0166
100	42.94	21.96	9.35	0.1064	1586.22	0.0131
150	26.25	13.43	5.72	0.0650	969.72	0.0080
200	17.86	9.14	3.89	0.0443	659.99	0.0054
250	13.05	6.68	2.84	0.0323	482.19	0.0040
500	4.69	2.40	1.02	0.0116	173.33	0.0014
1000	1.68	0.86	0.36	0.0042	61.90	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	19.34	8.23	0.0151	5276.51	0.0000
30	117.98	15.97	6.80	0.0125	4358.64	0.0000
40	98.78	13.37	5.69	0.0104	3649.09	0.0000
50	83.77	11.34	4.83	0.0089	3094.79	0.0000
60	71.89	9.73	4.14	0.0076	2656.01	0.0000
80	54.62	7.40	3.15	0.0058	2017.70	0.0000
100	42.94	5.81	2.47	0.0045	1586.22	0.0000
150	26.25	3.55	1.51	0.0028	969.72	0.0000
200	17.86	2.42	1.03	0.0019	659.99	0.0000
250	13.05	1.77	0.75	0.0014	482.19	0.0000
500	4.69	0.64	0.27	0.0005	173.33	0.0000
1000	1.68	0.23	0.10	0.0002	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	92.40	39.33	0.3689	0.0435
30	76.33	32.49	0.3047	0.0359
40	63.90	27.20	0.2551	0.0301
50	54.19	23.07	0.2164	0.0255
60	46.51	19.80	0.1857	0.0219
80	35.33	15.04	0.1411	0.0166
100	27.78	11.82	0.1109	0.0131
150	16.98	7.23	0.0678	0.0080
200	11.56	4.92	0.0461	0.0054
250	8.44	3.59	0.0337	0.0040
500	3.04	1.29	0.0121	0.0014
1000	1.08	0.46	0.0043	0.0005

Risk Assessment Summary - 3 Generic Facilities
Multicomponent Impacts - Brake Cleaners - Acute

Facility G-02 - 94% Perc

Met Set: Fresno

94% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.2815 | Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	72.47	63.32	26.96	0.3067	2850.30	0.0401
30	57.46	50.21	21.37	0.2431	2669.99	0.0376
40	37.02	32.35	13.77	0.1566	2147.67	0.0302
50	25.71	22.47	9.56	0.1088	1809.24	0.0255
60	18.87	16.49	7.02	0.0798	1526.84	0.0215
80	11.40	9.96	4.24	0.0482	1127.36	0.0159
100	7.62	6.66	2.83	0.0322	865.93	0.0122
150	3.60	3.15	1.34	0.0152	507.64	0.0071
200	2.09	1.83	0.78	0.0088	335.73	0.0047
250	1.36	1.19	0.51	0.0058	240.23	0.0034
500	0.35	0.31	0.13	0.0015	81.50	0.0011
1000	0.09	0.08	0.03	0.0004	27.65	0.0004

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	72.47	0.00	0.00	0.0000	2850.30	0.0000
30	57.46	0.00	0.00	0.0000	2669.99	0.0000
40	37.02	0.00	0.00	0.0000	2147.67	0.0000
50	25.71	0.00	0.00	0.0000	1809.24	0.0000
60	18.87	0.00	0.00	0.0000	1526.84	0.0000
80	11.40	0.00	0.00	0.0000	1127.36	0.0000
100	7.62	0.00	0.00	0.0000	865.93	0.0000
150	3.60	0.00	0.00	0.0000	507.64	0.0000
200	2.09	0.00	0.00	0.0000	335.73	0.0000
250	1.36	0.00	0.00	0.0000	240.23	0.0000
500	0.35	0.00	0.00	0.0000	81.50	0.0000
1000	0.09	0.00	0.00	0.0000	27.65	0.0000

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	72.47	0.00	0.00	0.0000	2850.30	0.0000
30	57.46	0.00	0.00	0.0000	2669.99	0.0000
40	37.02	0.00	0.00	0.0000	2147.67	0.0000
50	25.71	0.00	0.00	0.0000	1809.24	0.0000
60	18.87	0.00	0.00	0.0000	1526.84	0.0000
80	11.40	0.00	0.00	0.0000	1127.36	0.0000
100	7.62	0.00	0.00	0.0000	865.93	0.0000
150	3.60	0.00	0.00	0.0000	507.64	0.0000
200	2.09	0.00	0.00	0.0000	335.73	0.0000
250	1.36	0.00	0.00	0.0000	240.23	0.0000
500	0.35	0.00	0.00	0.0000	81.50	0.0000
1000	0.09	0.00	0.00	0.0000	27.65	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	63.32	26.96	0.3067	0.0401
30	50.21	21.37	0.2431	0.0376
40	32.35	13.77	0.1566	0.0302
50	22.47	9.56	0.1088	0.0255
60	16.49	7.02	0.0798	0.0215
80	9.96	4.24	0.0482	0.0159
100	6.66	2.83	0.0322	0.0122
150	3.15	1.34	0.0152	0.0071
200	1.83	0.78	0.0088	0.0047
250	1.19	0.51	0.0058	0.0034
500	0.31	0.13	0.0015	0.0011
1000	0.08	0.03	0.0004	0.0004

Facility G-02 - 55% Perc, 25% MeCl

Met Set: Fresno

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	72.47	37.07	15.78	0.1795	2850.30	0.0235
30	57.46	29.39	12.51	0.1423	2669.99	0.0220
40	37.02	18.94	8.06	0.0917	2147.67	0.0177
50	25.71	13.15	5.60	0.0637	1809.24	0.0149
60	18.87	9.65	4.11	0.0467	1526.84	0.0126
80	11.40	5.83	2.48	0.0282	1127.36	0.0093
100	7.62	3.90	1.66	0.0189	865.93	0.0071
150	3.60	1.84	0.78	0.0089	507.64	0.0042
200	2.09	1.07	0.46	0.0052	335.73	0.0028
250	1.36	0.70	0.30	0.0034	240.23	0.0020
500	0.35	0.18	0.08	0.0009	81.50	0.0007
1000	0.09	0.05	0.02	0.0002	27.65	0.0002

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	72.47	2.86	1.22	0.0010	2850.30	0.0152
30	57.46	2.26	0.96	0.0008	2669.99	0.0143
40	37.02	1.46	0.62	0.0005	2147.67	0.0115
50	25.71	1.01	0.43	0.0003	1809.24	0.0097
60	18.87	0.74	0.32	0.0002	1526.84	0.0082
80	11.40	0.45	0.19	0.0001	1127.36	0.0060
100	7.62	0.30	0.13	0.0001	865.93	0.0046
150	3.60	0.14	0.06	4.7E-05	507.64	0.0027
200	2.09	0.08	0.04	2.7E-05	335.73	0.0018
250	1.36	0.05	0.02	1.8E-05	240.23	0.0013
500	0.35	0.01	0.01	4.6E-06	81.50	0.0004
1000	0.09	0.00	0.00	1.2E-06	27.65	0.0001

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	72.47	0.00	0.00	0.0000	2850.30	0.0000
30	57.46	0.00	0.00	0.0000	2669.99	0.0000
40	37.02	0.00	0.00	0.0000	2147.67	0.0000
50	25.71	0.00	0.00	0.0000	1809.24	0.0000
60	18.87	0.00	0.00	0.0000	1526.84	0.0000
80	11.40	0.00	0.00	0.0000	1127.36	0.0000
100	7.62	0.00	0.00	0.0000	865.93	0.0000
150	3.60	0.00	0.00	0.0000	507.64	0.0000
200	2.09	0.00	0.00	0.0000	335.73	0.0000
250	1.36	0.00	0.00	0.0000	240.23	0.0000
500	0.35	0.00	0.00	0.0000	81.50	0.0000
1000	0.09	0.00	0.00	0.0000	27.65	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	39.93	17.00	0.1805	0.0387
30	31.66	13.48	0.1431	0.0363
40	20.40	8.68	0.0922	0.0292
50	14.16	6.03	0.0640	0.0246
60	10.40	4.43	0.0470	0.0207
80	6.28	2.67	0.0284	0.0153
100	4.20	1.79	0.0190	0.0118
150	1.98	0.84	0.0090	0.0069
200	1.15	0.49	0.0052	0.0046
250	0.75	0.32	0.0034	0.0033
500	0.19	0.08	0.0009	0.0011
1000	0.05	0.02	0.0002	0.0004

Facility G-02 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Fresno

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	72.47	26.94	11.47	0.1304	2850.30	0.0171
30	57.46	21.36	9.09	0.1034	2669.99	0.0160
40	37.02	13.76	5.86	0.0666	2147.67	0.0129
50	25.71	9.56	4.07	0.0463	1809.24	0.0108
60	18.87	7.01	2.99	0.0340	1526.84	0.0091
80	11.40	4.24	1.80	0.0205	1127.36	0.0068
100	7.62	2.83	1.21	0.0137	865.93	0.0052
150	3.60	1.34	0.57	0.0065	507.64	0.0030
200	2.09	0.78	0.33	0.0038	335.73	0.0020
250	1.36	0.51	0.22	0.0024	240.23	0.0014
500	0.35	0.13	0.06	0.0006	81.50	0.0005
1000	0.09	0.03	0.01	0.0002	27.65	0.0002

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	72.47	3.43	1.46	0.0011	2850.30	0.0183
30	57.46	2.72	1.16	0.0009	2669.99	0.0171
40	37.02	1.75	0.75	0.0006	2147.67	0.0138
50	25.71	1.22	0.52	0.0004	1809.24	0.0116
60	18.87	0.89	0.38	0.0003	1526.84	0.0098
80	11.40	0.54	0.23	0.0002	1127.36	0.0072
100	7.62	0.36	0.15	0.0001	865.93	0.0056
150	3.60	0.17	0.07	0.0001	507.64	0.0033
200	2.09	0.10	0.04	3.3E-05	335.73	0.0022
250	1.36	0.06	0.03	2.1E-05	240.23	0.0015
500	0.35	0.02	0.01	5.5E-06	81.50	0.0005
1000	0.09	0.00	0.00	1.4E-06	27.65	0.0002

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	72.47	4.57	1.94	0.0036	2850.30	0.0000
30	57.46	3.62	1.54	0.0028	2669.99	0.0000
40	37.02	2.33	0.99	0.0018	2147.67	0.0000
50	25.71	1.62	0.69	0.0013	1809.24	0.0000
60	18.87	1.19	0.51	0.0009	1526.84	0.0000
80	11.40	0.72	0.31	0.0006	1127.36	0.0000
100	7.62	0.48	0.20	0.0004	865.93	0.0000
150	3.60	0.23	0.10	0.0002	507.64	0.0000
200	2.09	0.13	0.06	0.0001	335.73	0.0000
250	1.36	0.09	0.04	0.0001	240.23	0.0000
500	0.35	0.02	0.01	1.7E-05	81.50	0.0000
1000	0.09	0.01	0.00	4.4E-06	27.65	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	34.93	14.87	0.1352	0.0354
30	27.70	11.79	0.1072	0.0331
40	17.84	7.60	0.0690	0.0266
50	12.39	5.28	0.0479	0.0224
60	9.10	3.87	0.0352	0.0189
80	5.49	2.34	0.0213	0.0140
100	3.67	1.56	0.0142	0.0107
150	1.74	0.74	0.0067	0.0063
200	1.01	0.43	0.0039	0.0042
250	0.66	0.28	0.0025	0.0030
500	0.17	0.07	0.0007	0.0010
1000	0.04	0.02	0.0002	0.0003

Facility G-02 - 55% Perc, 43% TCE

Met Set: Fresno

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	72.47	37.07	15.78	0.1795	2850.30	0.0235
30	57.46	29.39	12.51	0.1423	2669.99	0.0220
40	37.02	18.94	8.06	0.0917	2147.67	0.0177
50	25.71	13.15	5.60	0.0637	1809.24	0.0149
60	18.87	9.65	4.11	0.0467	1526.84	0.0126
80	11.40	5.83	2.48	0.0282	1127.36	0.0093
100	7.62	3.90	1.66	0.0189	865.93	0.0071
150	3.60	1.84	0.78	0.0089	507.64	0.0042
200	2.09	1.07	0.46	0.0052	335.73	0.0028
250	1.36	0.70	0.30	0.0034	240.23	0.0020
500	0.35	0.18	0.08	0.0009	81.50	0.0007
1000	0.09	0.05	0.02	0.0002	27.65	0.0002

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	72.47	0.00	0.00	0.0000	2850.30	0.0000
30	57.46	0.00	0.00	0.0000	2669.99	0.0000
40	37.02	0.00	0.00	0.0000	2147.67	0.0000
50	25.71	0.00	0.00	0.0000	1809.24	0.0000
60	18.87	0.00	0.00	0.0000	1526.84	0.0000
80	11.40	0.00	0.00	0.0000	1127.36	0.0000
100	7.62	0.00	0.00	0.0000	865.93	0.0000
150	3.60	0.00	0.00	0.0000	507.64	0.0000
200	2.09	0.00	0.00	0.0000	335.73	0.0000
250	1.36	0.00	0.00	0.0000	240.23	0.0000
500	0.35	0.00	0.00	0.0000	81.50	0.0000
1000	0.09	0.00	0.00	0.0000	27.65	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	72.47	9.81	4.18	0.0077	2850.30	0.0000
30	57.46	7.78	3.31	0.0061	2669.99	0.0000
40	37.02	5.01	2.13	0.0039	2147.67	0.0000
50	25.71	3.48	1.48	0.0027	1809.24	0.0000
60	18.87	2.55	1.09	0.0020	1526.84	0.0000
80	11.40	1.54	0.66	0.0012	1127.36	0.0000
100	7.62	1.03	0.44	0.0008	865.93	0.0000
150	3.60	0.49	0.21	0.0004	507.64	0.0000
200	2.09	0.28	0.12	0.0002	335.73	0.0000
250	1.36	0.18	0.08	0.0001	240.23	0.0000
500	0.35	0.05	0.02	3.7E-05	81.50	0.0000
1000	0.09	0.01	0.01	9.5E-06	27.65	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	46.88	19.96	0.1872	0.0235
30	37.17	15.82	0.1484	0.0220
40	23.95	10.19	0.0956	0.0177
50	16.63	7.08	0.0664	0.0149
60	12.21	5.20	0.0487	0.0126
80	7.38	3.14	0.0294	0.0093
100	4.93	2.10	0.0197	0.0071
150	2.33	0.99	0.0093	0.0042
200	1.35	0.58	0.0054	0.0028
250	0.88	0.37	0.0035	0.0020
500	0.23	0.10	0.0009	0.0007
1000	0.06	0.02	0.0002	0.0002

Facility G-02 - 94% Perc

Met Set: Concord

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815

Ann Rate [g/s]: 0.1481

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	97.28	85.00	36.18	0.4116	5532.86	0.0779
30	71.32	62.32	26.53	0.3018	4845.41	0.0682
40	46.19	40.36	17.18	0.1954	4048.28	0.0570
50	32.27	28.20	12.00	0.1365	3418.07	0.0481
60	23.83	20.82	8.86	0.1008	2918.05	0.0411
80	14.54	12.70	5.41	0.0615	2193.50	0.0309
100	9.80	8.56	3.65	0.0415	1708.42	0.0240
150	4.70	4.11	1.75	0.0199	1026.40	0.0144
200	2.75	2.40	1.02	0.0116	690.62	0.0097
250	1.81	1.58	0.67	0.0077	500.60	0.0070
500	0.48	0.42	0.18	0.0020	176.69	0.0025
1000	0.14	0.12	0.05	0.0006	62.47	0.0009

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	97.28	0.00	0.00	0.0000	5532.86	0.0000
30	71.32	0.00	0.00	0.0000	4845.41	0.0000
40	46.19	0.00	0.00	0.0000	4048.28	0.0000
50	32.27	0.00	0.00	0.0000	3418.07	0.0000
60	23.83	0.00	0.00	0.0000	2918.05	0.0000
80	14.54	0.00	0.00	0.0000	2193.50	0.0000
100	9.80	0.00	0.00	0.0000	1708.42	0.0000
150	4.70	0.00	0.00	0.0000	1026.40	0.0000
200	2.75	0.00	0.00	0.0000	690.62	0.0000
250	1.81	0.00	0.00	0.0000	500.60	0.0000
500	0.48	0.00	0.00	0.0000	176.69	0.0000
1000	0.14	0.00	0.00	0.0000	62.47	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	97.28	0.00	0.00	0.0000	5532.86	0.0000
30	71.32	0.00	0.00	0.0000	4845.41	0.0000
40	46.19	0.00	0.00	0.0000	4048.28	0.0000
50	32.27	0.00	0.00	0.0000	3418.07	0.0000
60	23.83	0.00	0.00	0.0000	2918.05	0.0000
80	14.54	0.00	0.00	0.0000	2193.50	0.0000
100	9.80	0.00	0.00	0.0000	1708.42	0.0000
150	4.70	0.00	0.00	0.0000	1026.40	0.0000
200	2.75	0.00	0.00	0.0000	690.62	0.0000
250	1.81	0.00	0.00	0.0000	500.60	0.0000
500	0.48	0.00	0.00	0.0000	176.69	0.0000
1000	0.14	0.00	0.00	0.0000	62.47	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	85.00	36.18	0.4116	0.0779
30	62.32	26.53	0.3018	0.0682
40	40.36	17.18	0.1954	0.0570
50	28.20	12.00	0.1365	0.0481
60	20.82	8.86	0.1008	0.0411
80	12.70	5.41	0.0615	0.0309
100	8.56	3.65	0.0415	0.0240
150	4.11	1.75	0.0199	0.0144
200	2.40	1.02	0.0116	0.0097
250	1.58	0.67	0.0077	0.0070
500	0.42	0.18	0.0020	0.0025
1000	0.12	0.05	0.0006	0.0009

Facility G-02 - 55% Perc, 25% MeCl

Met Set: Concord

55% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.1647 | Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.28	49.76	21.18	0.2410	5532.86	0.0456
30	71.32	36.48	15.53	0.1767	4845.41	0.0399
40	46.19	23.63	10.06	0.1144	4048.28	0.0333
50	32.27	16.51	7.03	0.0799	3418.07	0.0281
60	23.83	12.19	5.19	0.0590	2918.05	0.0240
80	14.54	7.44	3.17	0.0360	2193.50	0.0181
100	9.80	5.01	2.13	0.0243	1708.42	0.0141
150	4.70	2.40	1.02	0.0116	1026.40	0.0085
200	2.75	1.41	0.60	0.0068	690.62	0.0057
250	1.81	0.93	0.39	0.0045	500.60	0.0041
500	0.48	0.25	0.10	0.0012	176.69	0.0015
1000	0.14	0.07	0.03	0.0003	62.47	0.0005

25% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0749 | Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.28	3.83	1.63	0.0013	5532.86	0.0296
30	71.32	2.81	1.20	0.0009	4845.41	0.0259
40	46.19	1.82	0.77	0.0006	4048.28	0.0217
50	32.27	1.27	0.54	0.0004	3418.07	0.0183
60	23.83	0.94	0.40	0.0003	2918.05	0.0156
80	14.54	0.57	0.24	0.0002	2193.50	0.0117
100	9.80	0.39	0.16	0.0001	1708.42	0.0091
150	4.70	0.19	0.08	0.0001	1026.40	0.0055
200	2.75	0.11	0.05	3.6E-05	690.62	0.0037
250	1.81	0.07	0.03	2.4E-05	500.60	0.0027
500	0.48	0.02	0.01	6.3E-06	176.69	0.0009
1000	0.14	0.01	0.00	1.8E-06	62.47	0.0003

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.28	0.00	0.00	0.0000	5532.86	0.0000
30	71.32	0.00	0.00	0.0000	4845.41	0.0000
40	46.19	0.00	0.00	0.0000	4048.28	0.0000
50	32.27	0.00	0.00	0.0000	3418.07	0.0000
60	23.83	0.00	0.00	0.0000	2918.05	0.0000
80	14.54	0.00	0.00	0.0000	2193.50	0.0000
100	9.80	0.00	0.00	0.0000	1708.42	0.0000
150	4.70	0.00	0.00	0.0000	1026.40	0.0000
200	2.75	0.00	0.00	0.0000	690.62	0.0000
250	1.81	0.00	0.00	0.0000	500.60	0.0000
500	0.48	0.00	0.00	0.0000	176.69	0.0000
1000	0.14	0.00	0.00	0.0000	62.47	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	53.59	22.81	0.2423	0.0752
30	39.29	16.73	0.1776	0.0658
40	25.45	10.83	0.1150	0.0550
50	17.78	7.57	0.0804	0.0464
60	13.13	5.59	0.0593	0.0396
80	8.01	3.41	0.0362	0.0298
100	5.40	2.30	0.0244	0.0232
150	2.59	1.10	0.0117	0.0139
200	1.52	0.64	0.0068	0.0094
250	1.00	0.42	0.0045	0.0068
500	0.26	0.11	0.0012	0.0024
1000	0.08	0.03	0.0003	0.0008

Facility G-02 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Concord

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.28	36.16	15.39	0.1751	5532.86	0.0331
30	71.32	26.51	11.28	0.1284	4845.41	0.0290
40	46.19	17.17	7.31	0.0831	4048.28	0.0242
50	32.27	11.99	5.11	0.0581	3418.07	0.0205
60	23.83	8.86	3.77	0.0429	2918.05	0.0175
80	14.54	5.40	2.30	0.0262	2193.50	0.0131
100	9.80	3.64	1.55	0.0176	1708.42	0.0102
150	4.70	1.75	0.74	0.0085	1026.40	0.0061
200	2.75	1.02	0.44	0.0050	690.62	0.0041
250	1.81	0.67	0.29	0.0033	500.60	0.0030
500	0.48	0.18	0.08	0.0009	176.69	0.0011
1000	0.14	0.05	0.02	0.0003	62.47	0.0004

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.28	4.60	1.96	0.0015	5532.86	0.0355
30	71.32	3.37	1.44	0.0011	4845.41	0.0311
40	46.19	2.18	0.93	0.0007	4048.28	0.0260
50	32.27	1.53	0.65	0.0005	3418.07	0.0219
60	23.83	1.13	0.48	0.0004	2918.05	0.0187
80	14.54	0.69	0.29	0.0002	2193.50	0.0141
100	9.80	0.46	0.20	0.0002	1708.42	0.0110
150	4.70	0.22	0.09	0.0001	1026.40	0.0066
200	2.75	0.13	0.06	4.3E-05	690.62	0.0044
250	1.81	0.09	0.04	2.9E-05	500.60	0.0032
500	0.48	0.02	0.01	7.6E-06	176.69	0.0011
1000	0.14	0.01	0.00	2.2E-06	62.47	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.28	6.13	2.61	0.0048	5532.86	0.0000
30	71.32	4.49	1.91	0.0035	4845.41	0.0000
40	46.19	2.91	1.24	0.0023	4048.28	0.0000
50	32.27	2.03	0.87	0.0016	3418.07	0.0000
60	23.83	1.50	0.64	0.0012	2918.05	0.0000
80	14.54	0.92	0.39	0.0007	2193.50	0.0000
100	9.80	0.62	0.26	0.0005	1708.42	0.0000
150	4.70	0.30	0.13	0.0002	1026.40	0.0000
200	2.75	0.17	0.07	0.0001	690.62	0.0000
250	1.81	0.11	0.05	0.0001	500.60	0.0000
500	0.48	0.03	0.01	2.4E-05	176.69	0.0000
1000	0.14	0.01	0.00	6.9E-06	62.47	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	46.89	19.96	0.1814	0.0686
30	34.38	14.63	0.1330	0.0601
40	22.26	9.48	0.0861	0.0502
50	15.55	6.62	0.0602	0.0424
60	11.49	4.89	0.0444	0.0362
80	7.01	2.98	0.0271	0.0272
100	4.72	2.01	0.0183	0.0212
150	2.27	0.96	0.0088	0.0127
200	1.33	0.56	0.0051	0.0086
250	0.87	0.37	0.0034	0.0062
500	0.23	0.10	0.0009	0.0022
1000	0.07	0.03	0.0003	0.0008

Facility G-02 - 55% Perc, 43% TCE

Met Set: Concord

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.28	49.76	21.18	0.2410	5532.86	0.0456
30	71.32	36.48	15.53	0.1767	4845.41	0.0399
40	46.19	23.63	10.06	0.1144	4048.28	0.0333
50	32.27	16.51	7.03	0.0799	3418.07	0.0281
60	23.83	12.19	5.19	0.0590	2918.05	0.0240
80	14.54	7.44	3.17	0.0360	2193.50	0.0181
100	9.80	5.01	2.13	0.0243	1708.42	0.0141
150	4.70	2.40	1.02	0.0116	1026.40	0.0085
200	2.75	1.41	0.60	0.0068	690.62	0.0057
250	1.81	0.93	0.39	0.0045	500.60	0.0041
500	0.48	0.25	0.10	0.0012	176.69	0.0015
1000	0.14	0.07	0.03	0.0003	62.47	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.28	0.00	0.00	0.0000	5532.86	0.0000
30	71.32	0.00	0.00	0.0000	4845.41	0.0000
40	46.19	0.00	0.00	0.0000	4048.28	0.0000
50	32.27	0.00	0.00	0.0000	3418.07	0.0000
60	23.83	0.00	0.00	0.0000	2918.05	0.0000
80	14.54	0.00	0.00	0.0000	2193.50	0.0000
100	9.80	0.00	0.00	0.0000	1708.42	0.0000
150	4.70	0.00	0.00	0.0000	1026.40	0.0000
200	2.75	0.00	0.00	0.0000	690.62	0.0000
250	1.81	0.00	0.00	0.0000	500.60	0.0000
500	0.48	0.00	0.00	0.0000	176.69	0.0000
1000	0.14	0.00	0.00	0.0000	62.47	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	97.28	13.17	5.61	0.0103	5532.86	0.0000
30	71.32	9.66	4.11	0.0075	4845.41	0.0000
40	46.19	6.25	2.66	0.0049	4048.28	0.0000
50	32.27	4.37	1.86	0.0034	3418.07	0.0000
60	23.83	3.23	1.37	0.0025	2918.05	0.0000
80	14.54	1.97	0.84	0.0015	2193.50	0.0000
100	9.80	1.33	0.56	0.0010	1708.42	0.0000
150	4.70	0.64	0.27	0.0005	1026.40	0.0000
200	2.75	0.37	0.16	0.0003	690.62	0.0000
250	1.81	0.25	0.10	0.0002	500.60	0.0000
500	0.48	0.06	0.03	0.0001	176.69	0.0000
1000	0.14	0.02	0.01	1.5E-05	62.47	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	62.93	26.79	0.2513	0.0456
30	46.14	19.64	0.1842	0.0399
40	29.88	12.72	0.1193	0.0333
50	20.88	8.89	0.0834	0.0281
60	15.42	6.56	0.0616	0.0240
80	9.41	4.00	0.0376	0.0181
100	6.34	2.70	0.0253	0.0141
150	3.04	1.29	0.0121	0.0085
200	1.78	0.76	0.0071	0.0057
250	1.17	0.50	0.0047	0.0041
500	0.31	0.13	0.0012	0.0015
1000	0.09	0.04	0.0004	0.0005

Facility G-02 - 94% Perc

Met Set: Mather

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815

Ann Rate [g/s]: 0.1481

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	57.90	50.59	21.54	0.2450	3794.23	0.0534
30	42.67	37.28	15.87	0.1806	3373.60	0.0475
40	27.44	23.98	10.21	0.1161	2579.42	0.0363
50	19.05	16.65	7.09	0.0806	2118.71	0.0298
60	13.97	12.21	5.20	0.0591	1819.33	0.0256
80	8.44	7.37	3.14	0.0357	1377.52	0.0194
100	5.64	4.93	2.10	0.0239	1077.14	0.0152
150	2.66	2.32	0.99	0.0113	649.65	0.0091
200	1.55	1.35	0.58	0.0066	438.54	0.0062
250	1.01	0.88	0.38	0.0043	319.33	0.0045
500	0.26	0.23	0.10	0.0011	113.98	0.0016
1000	0.07	0.06	0.03	0.0003	40.48	0.0006

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	57.90	0.00	0.00	0.0000	3794.23	0.0000
30	42.67	0.00	0.00	0.0000	3373.60	0.0000
40	27.44	0.00	0.00	0.0000	2579.42	0.0000
50	19.05	0.00	0.00	0.0000	2118.71	0.0000
60	13.97	0.00	0.00	0.0000	1819.33	0.0000
80	8.44	0.00	0.00	0.0000	1377.52	0.0000
100	5.64	0.00	0.00	0.0000	1077.14	0.0000
150	2.66	0.00	0.00	0.0000	649.65	0.0000
200	1.55	0.00	0.00	0.0000	438.54	0.0000
250	1.01	0.00	0.00	0.0000	319.33	0.0000
500	0.26	0.00	0.00	0.0000	113.98	0.0000
1000	0.07	0.00	0.00	0.0000	40.48	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	57.90	0.00	0.00	0.0000	3794.23	0.0000
30	42.67	0.00	0.00	0.0000	3373.60	0.0000
40	27.44	0.00	0.00	0.0000	2579.42	0.0000
50	19.05	0.00	0.00	0.0000	2118.71	0.0000
60	13.97	0.00	0.00	0.0000	1819.33	0.0000
80	8.44	0.00	0.00	0.0000	1377.52	0.0000
100	5.64	0.00	0.00	0.0000	1077.14	0.0000
150	2.66	0.00	0.00	0.0000	649.65	0.0000
200	1.55	0.00	0.00	0.0000	438.54	0.0000
250	1.01	0.00	0.00	0.0000	319.33	0.0000
500	0.26	0.00	0.00	0.0000	113.98	0.0000
1000	0.07	0.00	0.00	0.0000	40.48	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	50.59	21.54	0.2450	0.0534
30	37.28	15.87	0.1806	0.0475
40	23.98	10.21	0.1161	0.0363
50	16.65	7.09	0.0806	0.0298
60	12.21	5.20	0.0591	0.0256
80	7.37	3.14	0.0357	0.0194
100	4.93	2.10	0.0239	0.0152
150	2.32	0.99	0.0113	0.0091
200	1.35	0.58	0.0066	0.0062
250	0.88	0.38	0.0043	0.0045
500	0.23	0.10	0.0011	0.0016
1000	0.06	0.03	0.0003	0.0006

Facility G-02 - 55% Perc, 25% MeCl

Met Set: Mather

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	57.90	29.62	12.61	0.1434	3794.23	0.0312
30	42.67	21.83	9.29	0.1057	3373.60	0.0278
40	27.44	14.04	5.98	0.0680	2579.42	0.0212
50	19.05	9.74	4.15	0.0472	2118.71	0.0174
60	13.97	7.15	3.04	0.0346	1819.33	0.0150
80	8.44	4.32	1.84	0.0209	1377.52	0.0113
100	5.64	2.89	1.23	0.0140	1077.14	0.0089
150	2.66	1.36	0.58	0.0066	649.65	0.0053
200	1.55	0.79	0.34	0.0038	438.54	0.0036
250	1.01	0.52	0.22	0.0025	319.33	0.0026
500	0.26	0.13	0.06	0.0006	113.98	0.0009
1000	0.07	0.04	0.02	0.0002	40.48	0.0003

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	57.90	2.28	0.97	0.0008	3794.23	0.0203
30	42.67	1.68	0.72	0.0006	3373.60	0.0180
40	27.44	1.08	0.46	0.0004	2579.42	0.0138
50	19.05	0.75	0.32	0.0003	2118.71	0.0113
60	13.97	0.55	0.23	0.0002	1819.33	0.0097
80	8.44	0.33	0.14	0.0001	1377.52	0.0074
100	5.64	0.22	0.09	0.0001	1077.14	0.0058
150	2.66	0.10	0.04	3.5E-05	649.65	0.0035
200	1.55	0.06	0.03	2.0E-05	438.54	0.0023
250	1.01	0.04	0.02	1.3E-05	319.33	0.0017
500	0.26	0.01	0.00	3.4E-06	113.98	0.0006
1000	0.07	0.00	0.00	9.2E-07	40.48	0.0002

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	57.90	0.00	0.00	0.0000	3794.23	0.0000
30	42.67	0.00	0.00	0.0000	3373.60	0.0000
40	27.44	0.00	0.00	0.0000	2579.42	0.0000
50	19.05	0.00	0.00	0.0000	2118.71	0.0000
60	13.97	0.00	0.00	0.0000	1819.33	0.0000
80	8.44	0.00	0.00	0.0000	1377.52	0.0000
100	5.64	0.00	0.00	0.0000	1077.14	0.0000
150	2.66	0.00	0.00	0.0000	649.65	0.0000
200	1.55	0.00	0.00	0.0000	438.54	0.0000
250	1.01	0.00	0.00	0.0000	319.33	0.0000
500	0.26	0.00	0.00	0.0000	113.98	0.0000
1000	0.07	0.00	0.00	0.0000	40.48	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	31.90	13.58	0.1442	0.0515
30	23.51	10.01	0.1063	0.0458
40	15.12	6.44	0.0683	0.0350
50	10.50	4.47	0.0474	0.0288
60	7.70	3.28	0.0348	0.0247
80	4.65	1.98	0.0210	0.0187
100	3.11	1.32	0.0140	0.0146
150	1.47	0.62	0.0066	0.0088
200	0.85	0.36	0.0039	0.0060
250	0.56	0.24	0.0025	0.0043
500	0.14	0.06	0.0006	0.0015
1000	0.04	0.02	0.0002	0.0005

Facility G-02 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Mather

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	57.90	21.52	9.16	0.1042	3794.23	0.0227
30	42.67	15.86	6.75	0.0768	3373.60	0.0202
40	27.44	10.20	4.34	0.0494	2579.42	0.0155
50	19.05	7.08	3.01	0.0343	2118.71	0.0127
60	13.97	5.19	2.21	0.0251	1819.33	0.0109
80	8.44	3.14	1.34	0.0152	1377.52	0.0083
100	5.64	2.10	0.89	0.0102	1077.14	0.0065
150	2.66	0.99	0.42	0.0048	649.65	0.0039
200	1.55	0.58	0.25	0.0028	438.54	0.0026
250	1.01	0.38	0.16	0.0018	319.33	0.0019
500	0.26	0.10	0.04	0.0005	113.98	0.0007
1000	0.07	0.03	0.01	0.0001	40.48	0.0002

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	57.90	2.74	1.17	0.0009	3794.23	0.0243
30	42.67	2.02	0.86	0.0007	3373.60	0.0216
40	27.44	1.30	0.55	0.0004	2579.42	0.0165
50	19.05	0.90	0.38	0.0003	2118.71	0.0136
60	13.97	0.66	0.28	0.0002	1819.33	0.0117
80	8.44	0.40	0.17	0.0001	1377.52	0.0088
100	5.64	0.27	0.11	0.0001	1077.14	0.0069
150	2.66	0.13	0.05	4.2E-05	649.65	0.0042
200	1.55	0.07	0.03	2.4E-05	438.54	0.0028
250	1.01	0.05	0.02	1.6E-05	319.33	0.0020
500	0.26	0.01	0.01	4.1E-06	113.98	0.0007
1000	0.07	0.00	0.00	1.1E-06	40.48	0.0003

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	57.90	3.65	1.55	0.0028	3794.23	0.0000
30	42.67	2.69	1.14	0.0021	3373.60	0.0000
40	27.44	1.73	0.74	0.0014	2579.42	0.0000
50	19.05	1.20	0.51	0.0009	2118.71	0.0000
60	13.97	0.88	0.37	0.0007	1819.33	0.0000
80	8.44	0.53	0.23	0.0004	1377.52	0.0000
100	5.64	0.36	0.15	0.0003	1077.14	0.0000
150	2.66	0.17	0.07	0.0001	649.65	0.0000
200	1.55	0.10	0.04	0.0001	438.54	0.0000
250	1.01	0.06	0.03	5.0E-05	319.33	0.0000
500	0.26	0.02	0.01	1.3E-05	113.98	0.0000
1000	0.07	0.00	0.00	3.4E-06	40.48	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	27.91	11.88	0.1080	0.0471
30	20.57	8.75	0.0796	0.0418
40	13.23	5.63	0.0512	0.0320
50	9.18	3.91	0.0355	0.0263
60	6.73	2.87	0.0261	0.0226
80	4.07	1.73	0.0157	0.0171
100	2.72	1.16	0.0105	0.0134
150	1.28	0.55	0.0050	0.0081
200	0.75	0.32	0.0029	0.0054
250	0.49	0.21	0.0019	0.0040
500	0.13	0.05	0.0005	0.0014
1000	0.03	0.01	0.0001	0.0005

Facility G-02 - 55% Perc, 43% TCE

Met Set: Mather

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	57.90	29.62	12.61	0.1434	3794.23	0.0312
30	42.67	21.83	9.29	0.1057	3373.60	0.0278
40	27.44	14.04	5.98	0.0680	2579.42	0.0212
50	19.05	9.74	4.15	0.0472	2118.71	0.0174
60	13.97	7.15	3.04	0.0346	1819.33	0.0150
80	8.44	4.32	1.84	0.0209	1377.52	0.0113
100	5.64	2.89	1.23	0.0140	1077.14	0.0089
150	2.66	1.36	0.58	0.0066	649.65	0.0053
200	1.55	0.79	0.34	0.0038	438.54	0.0036
250	1.01	0.52	0.22	0.0025	319.33	0.0026
500	0.26	0.13	0.06	0.0006	113.98	0.0009
1000	0.07	0.04	0.02	0.0002	40.48	0.0003

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	57.90	0.00	0.00	0.0000	3794.23	0.0000
30	42.67	0.00	0.00	0.0000	3373.60	0.0000
40	27.44	0.00	0.00	0.0000	2579.42	0.0000
50	19.05	0.00	0.00	0.0000	2118.71	0.0000
60	13.97	0.00	0.00	0.0000	1819.33	0.0000
80	8.44	0.00	0.00	0.0000	1377.52	0.0000
100	5.64	0.00	0.00	0.0000	1077.14	0.0000
150	2.66	0.00	0.00	0.0000	649.65	0.0000
200	1.55	0.00	0.00	0.0000	438.54	0.0000
250	1.01	0.00	0.00	0.0000	319.33	0.0000
500	0.26	0.00	0.00	0.0000	113.98	0.0000
1000	0.07	0.00	0.00	0.0000	40.48	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	57.90	7.84	3.34	0.0061	3794.23	0.0000
30	42.67	5.78	2.46	0.0045	3373.60	0.0000
40	27.44	3.72	1.58	0.0029	2579.42	0.0000
50	19.05	2.58	1.10	0.0020	2118.71	0.0000
60	13.97	1.89	0.81	0.0015	1819.33	0.0000
80	8.44	1.14	0.49	0.0009	1377.52	0.0000
100	5.64	0.76	0.33	0.0006	1077.14	0.0000
150	2.66	0.36	0.15	0.0003	649.65	0.0000
200	1.55	0.21	0.09	0.0002	438.54	0.0000
250	1.01	0.14	0.06	0.0001	319.33	0.0000
500	0.26	0.04	0.01	2.8E-05	113.98	0.0000
1000	0.07	0.01	0.00	7.4E-06	40.48	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	37.46	15.94	0.1496	0.0312
30	27.60	11.75	0.1102	0.0278
40	17.75	7.56	0.0709	0.0212
50	12.32	5.25	0.0492	0.0174
60	9.04	3.85	0.0361	0.0150
80	5.46	2.32	0.0218	0.0113
100	3.65	1.55	0.0146	0.0089
150	1.72	0.73	0.0069	0.0053
200	1.00	0.43	0.0040	0.0036
250	0.65	0.28	0.0026	0.0026
500	0.17	0.07	0.0007	0.0009
1000	0.05	0.02	0.0002	0.0003

Facility G-02 - 94% Perc

Met Set: Default -0

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815
Ann Rate [g/s]: 0.1481

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	124.80	53.13	0.6044	5276.51	0.0743
30	117.98	103.09	43.88	0.4992	4358.64	0.0613
40	98.78	86.31	36.74	0.4180	3649.09	0.0514
50	83.77	73.20	31.16	0.3545	3094.79	0.0436
60	71.89	62.82	26.74	0.3042	2656.01	0.0374
80	54.62	47.72	20.31	0.2311	2017.70	0.0284
100	42.94	37.52	15.97	0.1817	1586.22	0.0223
150	26.25	22.94	9.76	0.1111	969.72	0.0136
200	17.86	15.61	6.64	0.0756	659.99	0.0093
250	13.05	11.40	4.85	0.0552	482.19	0.0068
500	4.69	4.10	1.75	0.0199	173.33	0.0024
1000	1.68	1.46	0.62	0.0071	61.90	0.0009

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	124.80	53.13	0.6044	0.0743
30	103.09	43.88	0.4992	0.0613
40	86.31	36.74	0.4180	0.0514
50	73.20	31.16	0.3545	0.0436
60	62.82	26.74	0.3042	0.0374
80	47.72	20.31	0.2311	0.0284
100	37.52	15.97	0.1817	0.0223
150	22.94	9.76	0.1111	0.0136
200	15.61	6.64	0.0756	0.0093
250	11.40	4.85	0.0552	0.0068
500	4.10	1.75	0.0199	0.0024
1000	1.46	0.62	0.0071	0.0009

Facility G-02 - 55% Perc, 25% MeCl

Met Set: Default -0

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	73.06	31.10	0.3538	5276.51	0.0435
30	117.98	60.35	25.69	0.2923	4358.64	0.0359
40	98.78	50.53	21.51	0.2447	3649.09	0.0301
50	83.77	42.85	18.24	0.2075	3094.79	0.0255
60	71.89	36.78	15.65	0.1781	2656.01	0.0219
80	54.62	27.94	11.89	0.1353	2017.70	0.0166
100	42.94	21.96	9.35	0.1064	1586.22	0.0131
150	26.25	13.43	5.72	0.0650	969.72	0.0080
200	17.86	9.14	3.89	0.0443	659.99	0.0054
250	13.05	6.68	2.84	0.0323	482.19	0.0040
500	4.69	2.40	1.02	0.0116	173.33	0.0014
1000	1.68	0.86	0.36	0.0042	61.90	0.0005

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	5.63	2.40	0.0019	5276.51	0.0282
30	117.98	4.65	1.98	0.0015	4358.64	0.0233
40	98.78	3.89	1.66	0.0013	3649.09	0.0195
50	83.77	3.30	1.40	0.0011	3094.79	0.0166
60	71.89	2.83	1.21	0.0009	2656.01	0.0142
80	54.62	2.15	0.92	0.0007	2017.70	0.0108
100	42.94	1.69	0.72	0.0006	1586.22	0.0085
150	26.25	1.03	0.44	0.0003	969.72	0.0052
200	17.86	0.70	0.30	0.0002	659.99	0.0035
250	13.05	0.51	0.22	0.0002	482.19	0.0026
500	4.69	0.18	0.08	0.0001	173.33	0.0009
1000	1.68	0.07	0.03	2.2E-05	61.90	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	78.69	33.50	0.3557	0.0717
30	65.00	27.67	0.2938	0.0592
40	54.42	23.16	0.2460	0.0496
50	46.15	19.65	0.2086	0.0420
60	39.61	16.86	0.1790	0.0361
80	30.09	12.81	0.1360	0.0274
100	23.66	10.07	0.1069	0.0215
150	14.46	6.16	0.0654	0.0132
200	9.84	4.19	0.0445	0.0090
250	7.19	3.06	0.0325	0.0066
500	2.58	1.10	0.0117	0.0024
1000	0.92	0.39	0.0042	0.0008

Facility G-02 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Default -0

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	53.09	22.60	0.2571	5276.51	0.0316
30	117.98	43.85	18.67	0.2124	4358.64	0.0261
40	98.78	36.71	15.63	0.1778	3649.09	0.0219
50	83.77	31.14	13.25	0.1508	3094.79	0.0185
60	71.89	26.72	11.38	0.1294	2656.01	0.0159
80	54.62	20.30	8.64	0.0983	2017.70	0.0121
100	42.94	15.96	6.79	0.0773	1586.22	0.0095
150	26.25	9.76	4.15	0.0472	969.72	0.0058
200	17.86	6.64	2.83	0.0322	659.99	0.0040
250	13.05	4.85	2.07	0.0235	482.19	0.0029
500	4.69	1.74	0.74	0.0084	173.33	0.0010
1000	1.68	0.62	0.27	0.0030	61.90	0.0004

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	6.76	2.88	0.0023	5276.51	0.0338
30	117.98	5.58	2.38	0.0019	4358.64	0.0280
40	98.78	4.67	1.99	0.0016	3649.09	0.0234
50	83.77	3.96	1.69	0.0013	3094.79	0.0199
60	71.89	3.40	1.45	0.0011	2656.01	0.0170
80	54.62	2.58	1.10	0.0009	2017.70	0.0129
100	42.94	2.03	0.86	0.0007	1586.22	0.0102
150	26.25	1.24	0.53	0.0004	969.72	0.0062
200	17.86	0.85	0.36	0.0003	659.99	0.0042
250	13.05	0.62	0.26	0.0002	482.19	0.0031
500	4.69	0.22	0.09	0.0001	173.33	0.0011
1000	1.68	0.08	0.03	2.6E-05	61.90	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	9.00	3.83	0.0070	5276.51	0.0000
30	117.98	7.43	3.16	0.0058	4358.64	0.0000
40	98.78	6.22	2.65	0.0049	3649.09	0.0000
50	83.77	5.28	2.25	0.0041	3094.79	0.0000
60	71.89	4.53	1.93	0.0035	2656.01	0.0000
80	54.62	3.44	1.46	0.0027	2017.70	0.0000
100	42.94	2.71	1.15	0.0021	1586.22	0.0000
150	26.25	1.65	0.70	0.0013	969.72	0.0000
200	17.86	1.13	0.48	0.0009	659.99	0.0000
250	13.05	0.82	0.35	0.0006	482.19	0.0000
500	4.69	0.30	0.13	0.0002	173.33	0.0000
1000	1.68	0.11	0.04	0.0001	61.90	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	68.84	29.30	0.2664	0.0655
30	56.87	24.21	0.2200	0.0541
40	47.61	20.27	0.1842	0.0453
50	40.38	17.19	0.1562	0.0384
60	34.65	14.75	0.1341	0.0329
80	26.32	11.21	0.1019	0.0250
100	20.70	8.81	0.0801	0.0197
150	12.65	5.39	0.0490	0.0120
200	8.61	3.67	0.0333	0.0082
250	6.29	2.68	0.0243	0.0060
500	2.26	0.96	0.0088	0.0022
1000	0.81	0.34	0.0031	0.0008

Facility G-02 - 55% Perc, 43% TCE

Met Set: Default -0

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	73.06	31.10	0.3538	5276.51	0.0435
30	117.98	60.35	25.69	0.2923	4358.64	0.0359
40	98.78	50.53	21.51	0.2447	3649.09	0.0301
50	83.77	42.85	18.24	0.2075	3094.79	0.0255
60	71.89	36.78	15.65	0.1781	2656.01	0.0219
80	54.62	27.94	11.89	0.1353	2017.70	0.0166
100	42.94	21.96	9.35	0.1064	1586.22	0.0131
150	26.25	13.43	5.72	0.0650	969.72	0.0080
200	17.86	9.14	3.89	0.0443	659.99	0.0054
250	13.05	6.68	2.84	0.0323	482.19	0.0040
500	4.69	2.40	1.02	0.0116	173.33	0.0014
1000	1.68	0.86	0.36	0.0042	61.90	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	19.34	8.23	0.0151	5276.51	0.0000
30	117.98	15.97	6.80	0.0125	4358.64	0.0000
40	98.78	13.37	5.69	0.0104	3649.09	0.0000
50	83.77	11.34	4.83	0.0089	3094.79	0.0000
60	71.89	9.73	4.14	0.0076	2656.01	0.0000
80	54.62	7.40	3.15	0.0058	2017.70	0.0000
100	42.94	5.81	2.47	0.0045	1586.22	0.0000
150	26.25	3.55	1.51	0.0028	969.72	0.0000
200	17.86	2.42	1.03	0.0019	659.99	0.0000
250	13.05	1.77	0.75	0.0014	482.19	0.0000
500	4.69	0.64	0.27	0.0005	173.33	0.0000
1000	1.68	0.23	0.10	0.0002	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	92.40	39.33	0.3689	0.0435
30	76.33	32.49	0.3047	0.0359
40	63.90	27.20	0.2551	0.0301
50	54.19	23.07	0.2164	0.0255
60	46.51	19.80	0.1857	0.0219
80	35.33	15.04	0.1411	0.0166
100	27.78	11.82	0.1109	0.0131
150	16.98	7.23	0.0678	0.0080
200	11.56	4.92	0.0461	0.0054
250	8.44	3.59	0.0337	0.0040
500	3.04	1.29	0.0121	0.0014
1000	1.08	0.46	0.0043	0.0005

Risk Assessment Summary - 3 Generic Facilities
Multicomponent Impacts - Brake Cleaners - Chronic/Cancer

Facility G-03 - 94% Perc

Met Set: Burbank

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815
Ann Rate [g/s]: 0.1481

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	17.91	15.65	6.66	0.0758	1344.25	0.0189
30	42.20	36.87	15.70	0.1786	1964.95	0.0277
40	35.87	31.34	13.34	0.1518	1702.10	0.0240
50	33.01	28.84	12.28	0.1397	2640.90	0.0372
60	26.91	23.51	10.01	0.1139	2498.24	0.0352
80	15.68	13.70	5.83	0.0663	1915.64	0.0270
100	10.28	8.98	3.82	0.0435	1511.07	0.0213
150	4.76	4.16	1.77	0.0201	927.46	0.0131
200	2.75	2.40	1.02	0.0116	633.44	0.0089
250	1.79	1.56	0.67	0.0076	464.37	0.0065
500	0.47	0.41	0.17	0.0020	169.00	0.0024
1000	0.12	0.10	0.04	0.0005	61.00	0.0009

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	17.91	0.00	0.00	0.0000	1344.25	0.0000
30	42.20	0.00	0.00	0.0000	1964.95	0.0000
40	35.87	0.00	0.00	0.0000	1702.10	0.0000
50	33.01	0.00	0.00	0.0000	2640.90	0.0000
60	26.91	0.00	0.00	0.0000	2498.24	0.0000
80	15.68	0.00	0.00	0.0000	1915.64	0.0000
100	10.28	0.00	0.00	0.0000	1511.07	0.0000
150	4.76	0.00	0.00	0.0000	927.46	0.0000
200	2.75	0.00	0.00	0.0000	633.44	0.0000
250	1.79	0.00	0.00	0.0000	464.37	0.0000
500	0.47	0.00	0.00	0.0000	169.00	0.0000
1000	0.12	0.00	0.00	0.0000	61.00	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	17.91	0.00	0.00	0.0000	1344.25	0.0000
30	42.20	0.00	0.00	0.0000	1964.95	0.0000
40	35.87	0.00	0.00	0.0000	1702.10	0.0000
50	33.01	0.00	0.00	0.0000	2640.90	0.0000
60	26.91	0.00	0.00	0.0000	2498.24	0.0000
80	15.68	0.00	0.00	0.0000	1915.64	0.0000
100	10.28	0.00	0.00	0.0000	1511.07	0.0000
150	4.76	0.00	0.00	0.0000	927.46	0.0000
200	2.75	0.00	0.00	0.0000	633.44	0.0000
250	1.79	0.00	0.00	0.0000	464.37	0.0000
500	0.47	0.00	0.00	0.0000	169.00	0.0000
1000	0.12	0.00	0.00	0.0000	61.00	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	15.65	6.66	0.0758	0.0189
30	36.87	15.70	0.1786	0.0277
40	31.34	13.34	0.1518	0.0240
50	28.84	12.28	0.1397	0.0372
60	23.51	10.01	0.1139	0.0352
80	13.70	5.83	0.0663	0.0270
100	8.98	3.82	0.0435	0.0213
150	4.16	1.77	0.0201	0.0131
200	2.40	1.02	0.0116	0.0089
250	1.56	0.67	0.0076	0.0065
500	0.41	0.17	0.0020	0.0024
1000	0.10	0.04	0.0005	0.0009

Facility G-03 - 55% Perc, 25% MeCl

Met Set: Burbank

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	17.91	9.16	3.90	0.0444	1344.25	0.0111
30	42.20	21.59	9.19	0.1045	1964.95	0.0162
40	35.87	18.35	7.81	0.0889	1702.10	0.0140
50	33.01	16.89	7.19	0.0818	2640.90	0.0217
60	26.91	13.77	5.86	0.0667	2498.24	0.0206
80	15.68	8.02	3.41	0.0388	1915.64	0.0158
100	10.28	5.26	2.24	0.0255	1511.07	0.0124
150	4.76	2.43	1.04	0.0118	927.46	0.0076
200	2.75	1.41	0.60	0.0068	633.44	0.0052
250	1.79	0.92	0.39	0.0044	464.37	0.0038
500	0.47	0.24	0.10	0.0012	169.00	0.0014
1000	0.12	0.06	0.03	0.0003	61.00	0.0005

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	17.91	0.71	0.30	0.0002	1344.25	0.0072
30	42.20	1.66	0.71	0.0006	1964.95	0.0105
40	35.87	1.41	0.60	0.0005	1702.10	0.0091
50	33.01	1.30	0.55	0.0004	2640.90	0.0141
60	26.91	1.06	0.45	0.0004	2498.24	0.0134
80	15.68	0.62	0.26	0.0002	1915.64	0.0102
100	10.28	0.41	0.17	0.0001	1511.07	0.0081
150	4.76	0.19	0.08	0.0001	927.46	0.0050
200	2.75	0.11	0.05	3.6E-05	633.44	0.0034
250	1.79	0.07	0.03	2.4E-05	464.37	0.0025
500	0.47	0.02	0.01	6.2E-06	169.00	0.0009
1000	0.12	0.00	0.00	1.6E-06	61.00	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	17.91	0.00	0.00	0.0000	1344.25	0.0000
30	42.20	0.00	0.00	0.0000	1964.95	0.0000
40	35.87	0.00	0.00	0.0000	1702.10	0.0000
50	33.01	0.00	0.00	0.0000	2640.90	0.0000
60	26.91	0.00	0.00	0.0000	2498.24	0.0000
80	15.68	0.00	0.00	0.0000	1915.64	0.0000
100	10.28	0.00	0.00	0.0000	1511.07	0.0000
150	4.76	0.00	0.00	0.0000	927.46	0.0000
200	2.75	0.00	0.00	0.0000	633.44	0.0000
250	1.79	0.00	0.00	0.0000	464.37	0.0000
500	0.47	0.00	0.00	0.0000	169.00	0.0000
1000	0.12	0.00	0.00	0.0000	61.00	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	9.87	4.20	0.0446	0.0183
30	23.25	9.90	0.1051	0.0267
40	19.76	8.41	0.0893	0.0231
50	18.19	7.74	0.0822	0.0359
60	14.83	6.31	0.0670	0.0339
80	8.64	3.68	0.0390	0.0260
100	5.66	2.41	0.0256	0.0205
150	2.62	1.12	0.0119	0.0126
200	1.52	0.64	0.0068	0.0086
250	0.99	0.42	0.0045	0.0063
500	0.26	0.11	0.0012	0.0023
1000	0.07	0.03	0.0003	0.0008

Facility G-03 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Burbank

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	17.91	6.66	2.83	0.0322	1344.25	0.0081
30	42.20	15.69	6.68	0.0760	1964.95	0.0118
40	35.87	13.33	5.68	0.0646	1702.10	0.0102
50	33.01	12.27	5.22	0.0594	2640.90	0.0158
60	26.91	10.00	4.26	0.0484	2498.24	0.0150
80	15.68	5.83	2.48	0.0282	1915.64	0.0115
100	10.28	3.82	1.63	0.0185	1511.07	0.0091
150	4.76	1.77	0.75	0.0086	927.46	0.0056
200	2.75	1.02	0.44	0.0050	633.44	0.0038
250	1.79	0.67	0.28	0.0032	464.37	0.0028
500	0.47	0.17	0.07	0.0008	169.00	0.0010
1000	0.12	0.04	0.02	0.0002	61.00	0.0004

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	14.40	0.68	0.29	0.0002	1344.25	0.0086
30	22.00	1.04	0.44	0.0003	1964.95	0.0126
40	17.01	0.80	0.34	0.0003	1702.10	0.0109
50	14.68	0.69	0.30	0.0002	2640.90	0.0169
60	11.12	0.53	0.22	0.0002	2498.24	0.0160
80	6.47	0.31	0.13	0.0001	1915.64	0.0123
100	4.24	0.20	0.09	0.0001	1511.07	0.0097
150	1.88	0.09	0.04	3.0E-05	927.46	0.0059
200	1.05	0.05	0.02	1.7E-05	633.44	0.0041
250	0.67	0.03	0.01	1.0E-05	464.37	0.0030
500	0.17	0.01	0.00	2.8E-06	169.00	0.0011
1000	0.04	0.00	0.00	7.0E-07	61.00	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	17.91	1.13	0.48	0.0009	1344.25	0.0000
30	42.20	2.66	1.13	0.0021	1964.95	0.0000
40	35.87	2.26	0.96	0.0018	1702.10	0.0000
50	33.01	2.08	0.89	0.0016	2640.90	0.0000
60	26.91	1.70	0.72	0.0013	2498.24	0.0000
80	15.68	0.99	0.42	0.0008	1915.64	0.0000
100	10.28	0.65	0.28	0.0005	1511.07	0.0000
150	4.76	0.30	0.13	0.0002	927.46	0.0000
200	2.75	0.17	0.07	0.0001	633.44	0.0000
250	1.79	0.11	0.05	0.0001	464.37	0.0000
500	0.47	0.03	0.01	2.3E-05	169.00	0.0000
1000	0.12	0.01	0.00	5.9E-06	61.00	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	8.47	3.60	0.0333	0.0167
30	19.38	8.25	0.0784	0.0244
40	16.40	6.98	0.0666	0.0211
50	15.04	6.40	0.0613	0.0328
60	12.22	5.20	0.0499	0.0310
80	7.12	3.03	0.0291	0.0238
100	4.67	1.99	0.0191	0.0187
150	2.16	0.92	0.0088	0.0115
200	1.25	0.53	0.0051	0.0079
250	0.81	0.34	0.0033	0.0058
500	0.21	0.09	0.0009	0.0021
1000	0.05	0.02	0.0002	0.0008

Facility G-03 - 55% Perc, 43% TCE

Met Set: Burbank

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	17.91	9.16	3.90	0.0444	1344.25	0.0111
30	42.20	21.59	9.19	0.1045	1964.95	0.0162
40	35.87	18.35	7.81	0.0889	1702.10	0.0140
50	33.01	16.89	7.19	0.0818	2640.90	0.0217
60	26.91	13.77	5.86	0.0667	2498.24	0.0206
80	15.68	8.02	3.41	0.0388	1915.64	0.0158
100	10.28	5.26	2.24	0.0255	1511.07	0.0124
150	4.76	2.43	1.04	0.0118	927.46	0.0076
200	2.75	1.41	0.60	0.0068	633.44	0.0052
250	1.79	0.92	0.39	0.0044	464.37	0.0038
500	0.47	0.24	0.10	0.0012	169.00	0.0014
1000	0.12	0.06	0.03	0.0003	61.00	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	17.91	0.00	0.00	0.0000	1344.25	0.0000
30	42.20	0.00	0.00	0.0000	1964.95	0.0000
40	35.87	0.00	0.00	0.0000	1702.10	0.0000
50	33.01	0.00	0.00	0.0000	2640.90	0.0000
60	26.91	0.00	0.00	0.0000	2498.24	0.0000
80	15.68	0.00	0.00	0.0000	1915.64	0.0000
100	10.28	0.00	0.00	0.0000	1511.07	0.0000
150	4.76	0.00	0.00	0.0000	927.46	0.0000
200	2.75	0.00	0.00	0.0000	633.44	0.0000
250	1.79	0.00	0.00	0.0000	464.37	0.0000
500	0.47	0.00	0.00	0.0000	169.00	0.0000
1000	0.12	0.00	0.00	0.0000	61.00	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	17.91	2.43	1.03	0.0019	1344.25	0.0000
30	42.20	5.71	2.43	0.0045	1964.95	0.0000
40	35.87	4.86	2.07	0.0038	1702.10	0.0000
50	33.01	4.47	1.90	0.0035	2640.90	0.0000
60	26.91	3.64	1.55	0.0028	2498.24	0.0000
80	15.68	2.12	0.90	0.0017	1915.64	0.0000
100	10.28	1.39	0.59	0.0011	1511.07	0.0000
150	4.76	0.64	0.27	0.0005	927.46	0.0000
200	2.75	0.37	0.16	0.0003	633.44	0.0000
250	1.79	0.24	0.10	0.0002	464.37	0.0000
500	0.47	0.06	0.03	5.0E-05	169.00	0.0000
1000	0.12	0.02	0.01	1.3E-05	61.00	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	11.59	4.93	0.0463	0.0111
30	27.30	11.62	0.1090	0.0162
40	23.21	9.88	0.0926	0.0140
50	21.36	9.09	0.0853	0.0217
60	17.41	7.41	0.0695	0.0206
80	10.14	4.32	0.0405	0.0158
100	6.65	2.83	0.0266	0.0124
150	3.08	1.31	0.0123	0.0076
200	1.78	0.76	0.0071	0.0052
250	1.16	0.49	0.0046	0.0038
500	0.30	0.13	0.0012	0.0014
1000	0.08	0.03	0.0003	0.0005

Facility G-03 - 94% Perc

Met Set: Anaheim

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815

Ann Rate [g/s]: 0.1481

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	31.15	27.22	11.59	0.1318	1343.62	0.0189
30	57.73	50.44	21.47	0.2443	1964.47	0.0276
40	44.96	39.29	16.72	0.1902	1701.54	0.0239
50	41.98	36.68	15.61	0.1776	2643.73	0.0372
60	35.48	31.00	13.20	0.1501	2497.42	0.0352
80	20.76	18.14	7.72	0.0878	1914.71	0.0269
100	13.59	11.87	5.05	0.0575	1510.10	0.0213
150	6.26	5.47	2.33	0.0265	926.57	0.0130
200	3.60	3.15	1.34	0.0152	632.67	0.0089
250	2.34	2.04	0.87	0.0099	463.72	0.0065
500	0.61	0.53	0.23	0.0026	168.65	0.0024
1000	0.16	0.14	0.06	0.0007	60.83	0.0009

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	31.15	0.00	0.00	0.0000	1343.62	0.0000
30	57.73	0.00	0.00	0.0000	1964.47	0.0000
40	44.96	0.00	0.00	0.0000	1701.54	0.0000
50	41.98	0.00	0.00	0.0000	2643.73	0.0000
60	35.48	0.00	0.00	0.0000	2497.42	0.0000
80	20.76	0.00	0.00	0.0000	1914.71	0.0000
100	13.59	0.00	0.00	0.0000	1510.10	0.0000
150	6.26	0.00	0.00	0.0000	926.57	0.0000
200	3.60	0.00	0.00	0.0000	632.67	0.0000
250	2.34	0.00	0.00	0.0000	463.72	0.0000
500	0.61	0.00	0.00	0.0000	168.65	0.0000
1000	0.16	0.00	0.00	0.0000	60.83	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	31.15	0.00	0.00	0.0000	1343.62	0.0000
30	57.73	0.00	0.00	0.0000	1964.47	0.0000
40	44.96	0.00	0.00	0.0000	1701.54	0.0000
50	41.98	0.00	0.00	0.0000	2643.73	0.0000
60	35.48	0.00	0.00	0.0000	2497.42	0.0000
80	20.76	0.00	0.00	0.0000	1914.71	0.0000
100	13.59	0.00	0.00	0.0000	1510.10	0.0000
150	6.26	0.00	0.00	0.0000	926.57	0.0000
200	3.60	0.00	0.00	0.0000	632.67	0.0000
250	2.34	0.00	0.00	0.0000	463.72	0.0000
500	0.61	0.00	0.00	0.0000	168.65	0.0000
1000	0.16	0.00	0.00	0.0000	60.83	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	27.22	11.59	0.1318	0.0189
30	50.44	21.47	0.2443	0.0276
40	39.29	16.72	0.1902	0.0239
50	36.68	15.61	0.1776	0.0372
60	31.00	13.20	0.1501	0.0352
80	18.14	7.72	0.0878	0.0269
100	11.87	5.05	0.0575	0.0213
150	5.47	2.33	0.0265	0.0130
200	3.15	1.34	0.0152	0.0089
250	2.04	0.87	0.0099	0.0065
500	0.53	0.23	0.0026	0.0024
1000	0.14	0.06	0.0007	0.0009

Facility G-03 - 55% Perc, 25% MeCl

Met Set: Anaheim

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	31.15	15.93	6.78	0.0772	1343.62	0.0111
30	57.73	29.53	12.57	0.1430	1964.47	0.0162
40	44.96	23.00	9.79	0.1114	1701.54	0.0140
50	41.98	21.47	9.14	0.1040	2643.73	0.0218
60	35.48	18.15	7.73	0.0879	2497.42	0.0206
80	20.76	10.62	4.52	0.0514	1914.71	0.0158
100	13.59	6.95	2.96	0.0337	1510.10	0.0124
150	6.26	3.20	1.36	0.0155	926.57	0.0076
200	3.60	1.84	0.78	0.0089	632.67	0.0052
250	2.34	1.20	0.51	0.0058	463.72	0.0038
500	0.61	0.31	0.13	0.0015	168.65	0.0014
1000	0.16	0.08	0.03	0.0004	60.83	0.0005

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	31.15	1.23	0.52	0.0004	1343.62	0.0072
30	57.73	2.27	0.97	0.0008	1964.47	0.0105
40	44.96	1.77	0.75	0.0006	1701.54	0.0091
50	41.98	1.65	0.70	0.0006	2643.73	0.0141
60	35.48	1.40	0.60	0.0005	2497.42	0.0134
80	20.76	0.82	0.35	0.0003	1914.71	0.0102
100	13.59	0.54	0.23	0.0002	1510.10	0.0081
150	6.26	0.25	0.10	0.0001	926.57	0.0050
200	3.60	0.14	0.06	4.7E-05	632.67	0.0034
250	2.34	0.09	0.04	3.1E-05	463.72	0.0025
500	0.61	0.02	0.01	8.0E-06	168.65	0.0009
1000	0.16	0.01	0.00	2.1E-06	60.83	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	31.15	0.00	0.00	0.0000	1343.62	0.0000
30	57.73	0.00	0.00	0.0000	1964.47	0.0000
40	44.96	0.00	0.00	0.0000	1701.54	0.0000
50	41.98	0.00	0.00	0.0000	2643.73	0.0000
60	35.48	0.00	0.00	0.0000	2497.42	0.0000
80	20.76	0.00	0.00	0.0000	1914.71	0.0000
100	13.59	0.00	0.00	0.0000	1510.10	0.0000
150	6.26	0.00	0.00	0.0000	926.57	0.0000
200	3.60	0.00	0.00	0.0000	632.67	0.0000
250	2.34	0.00	0.00	0.0000	463.72	0.0000
500	0.61	0.00	0.00	0.0000	168.65	0.0000
1000	0.16	0.00	0.00	0.0000	60.83	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	17.16	7.31	0.0776	0.0183
30	31.81	13.54	0.1438	0.0267
40	24.77	10.54	0.1120	0.0231
50	23.13	9.85	0.1045	0.0359
60	19.55	8.32	0.0884	0.0339
80	11.44	4.87	0.0517	0.0260
100	7.49	3.19	0.0338	0.0205
150	3.45	1.47	0.0156	0.0126
200	1.98	0.84	0.0090	0.0086
250	1.29	0.55	0.0058	0.0063
500	0.34	0.14	0.0015	0.0023
1000	0.09	0.04	0.0004	0.0008

Facility G-03 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Anaheim

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	31.15	11.58	4.93	0.0561	1343.62	0.0080
30	57.73	21.46	9.13	0.1039	1964.47	0.0118
40	44.96	16.71	7.11	0.0809	1701.54	0.0102
50	41.98	15.60	6.64	0.0756	2643.73	0.0158
60	35.48	13.19	5.61	0.0639	2497.42	0.0150
80	20.76	7.72	3.28	0.0374	1914.71	0.0115
100	13.59	5.05	2.15	0.0245	1510.10	0.0090
150	6.26	2.33	0.99	0.0113	926.57	0.0056
200	3.60	1.34	0.57	0.0065	632.67	0.0038
250	2.34	0.87	0.37	0.0042	463.72	0.0028
500	0.61	0.23	0.10	0.0011	168.65	0.0010
1000	0.16	0.06	0.03	0.0003	60.83	0.0004

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	31.15	1.47	0.63	0.0005	1343.62	0.0086
30	57.73	2.73	1.16	0.0009	1964.47	0.0126
40	44.96	2.13	0.91	0.0007	1701.54	0.0109
50	41.98	1.99	0.85	0.0007	2643.73	0.0170
60	35.48	1.68	0.71	0.0006	2497.42	0.0160
80	20.76	0.98	0.42	0.0003	1914.71	0.0123
100	13.59	0.64	0.27	0.0002	1510.10	0.0097
150	6.26	0.30	0.13	0.0001	926.57	0.0059
200	3.60	0.17	0.07	0.0001	632.67	0.0041
250	2.34	0.11	0.05	3.7E-05	463.72	0.0030
500	0.61	0.03	0.01	9.6E-06	168.65	0.0011
1000	0.16	0.01	0.00	2.5E-06	60.83	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	31.15	1.96	0.84	0.0015	1343.62	0.0000
30	57.73	3.64	1.55	0.0028	1964.47	0.0000
40	44.96	2.83	1.21	0.0022	1701.54	0.0000
50	41.98	2.64	1.13	0.0021	2643.73	0.0000
60	35.48	2.24	0.95	0.0017	2497.42	0.0000
80	20.76	1.31	0.56	0.0010	1914.71	0.0000
100	13.59	0.86	0.36	0.0007	1510.10	0.0000
150	6.26	0.39	0.17	0.0003	926.57	0.0000
200	3.60	0.23	0.10	0.0002	632.67	0.0000
250	2.34	0.15	0.06	0.0001	463.72	0.0000
500	0.61	0.04	0.02	3.0E-05	168.65	0.0000
1000	0.16	0.01	0.00	7.9E-06	60.83	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	15.01	6.39	0.0581	0.0167
30	27.83	11.84	0.1077	0.0244
40	21.67	9.22	0.0838	0.0211
50	20.23	8.61	0.0783	0.0328
60	17.10	7.28	0.0662	0.0310
80	10.01	4.26	0.0387	0.0238
100	6.55	2.79	0.0253	0.0187
150	3.02	1.28	0.0117	0.0115
200	1.74	0.74	0.0067	0.0078
250	1.13	0.48	0.0044	0.0058
500	0.29	0.13	0.0011	0.0021
1000	0.08	0.03	0.0003	0.0008

Facility G-03 - 55% Perc, 43% TCE

Met Set: Anaheim

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	31.15	15.93	6.78	0.0772	1343.62	0.0111
30	57.73	29.53	12.57	0.1430	1964.47	0.0162
40	44.96	23.00	9.79	0.1114	1701.54	0.0140
50	41.98	21.47	9.14	0.1040	2643.73	0.0218
60	35.48	18.15	7.73	0.0879	2497.42	0.0206
80	20.76	10.62	4.52	0.0514	1914.71	0.0158
100	13.59	6.95	2.96	0.0337	1510.10	0.0124
150	6.26	3.20	1.36	0.0155	926.57	0.0076
200	3.60	1.84	0.78	0.0089	632.67	0.0052
250	2.34	1.20	0.51	0.0058	463.72	0.0038
500	0.61	0.31	0.13	0.0015	168.65	0.0014
1000	0.16	0.08	0.03	0.0004	60.83	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	31.15	0.00	0.00	0.0000	1343.62	0.0000
30	57.73	0.00	0.00	0.0000	1964.47	0.0000
40	44.96	0.00	0.00	0.0000	1701.54	0.0000
50	41.98	0.00	0.00	0.0000	2643.73	0.0000
60	35.48	0.00	0.00	0.0000	2497.42	0.0000
80	20.76	0.00	0.00	0.0000	1914.71	0.0000
100	13.59	0.00	0.00	0.0000	1510.10	0.0000
150	6.26	0.00	0.00	0.0000	926.57	0.0000
200	3.60	0.00	0.00	0.0000	632.67	0.0000
250	2.34	0.00	0.00	0.0000	463.72	0.0000
500	0.61	0.00	0.00	0.0000	168.65	0.0000
1000	0.16	0.00	0.00	0.0000	60.83	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	31.15	4.22	1.80	0.0033	1343.62	0.0000
30	57.73	7.82	3.33	0.0061	1964.47	0.0000
40	44.96	6.09	2.59	0.0048	1701.54	0.0000
50	41.98	5.68	2.42	0.0044	2643.73	0.0000
60	35.48	4.80	2.04	0.0038	2497.42	0.0000
80	20.76	2.81	1.20	0.0022	1914.71	0.0000
100	13.59	1.84	0.78	0.0014	1510.10	0.0000
150	6.26	0.85	0.36	0.0007	926.57	0.0000
200	3.60	0.49	0.21	0.0004	632.67	0.0000
250	2.34	0.32	0.13	0.0002	463.72	0.0000
500	0.61	0.08	0.04	0.0001	168.65	0.0000
1000	0.16	0.02	0.01	1.7E-05	60.83	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	20.15	8.58	0.0805	0.0111
30	37.35	15.90	0.1491	0.0162
40	29.09	12.38	0.1161	0.0140
50	27.16	11.56	0.1084	0.0218
60	22.95	9.77	0.0916	0.0206
80	13.43	5.72	0.0536	0.0158
100	8.79	3.74	0.0351	0.0124
150	4.05	1.72	0.0162	0.0076
200	2.33	0.99	0.0093	0.0052
250	1.51	0.64	0.0060	0.0038
500	0.39	0.17	0.0016	0.0014
1000	0.10	0.04	0.0004	0.0005

Facility G-03 - 94% Perc

Met Set: Oakland

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815
Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	15.58	13.61	5.80	0.0659	1242.49	0.0175
30	24.65	21.54	9.17	0.1043	1456.60	0.0205
40	18.32	16.01	6.81	0.0775	1455.87	0.0205
50	16.79	14.67	6.25	0.0710	1716.38	0.0242
60	15.06	13.16	5.60	0.0637	1622.23	0.0228
80	8.95	7.82	3.33	0.0379	1243.92	0.0175
100	5.91	5.16	2.20	0.0250	981.21	0.0138
150	2.76	2.41	1.03	0.0117	669.93	0.0094
200	1.60	1.40	0.60	0.0068	487.14	0.0069
250	1.05	0.92	0.39	0.0044	367.88	0.0052
500	0.28	0.24	0.10	0.0012	145.98	0.0021
1000	0.07	0.06	0.03	0.0003	53.80	0.0008

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	15.58	0.00	0.00	0.0000	1242.49	0.0000
30	24.65	0.00	0.00	0.0000	1456.60	0.0000
40	18.32	0.00	0.00	0.0000	1455.87	0.0000
50	16.79	0.00	0.00	0.0000	1716.38	0.0000
60	15.06	0.00	0.00	0.0000	1622.23	0.0000
80	8.95	0.00	0.00	0.0000	1243.92	0.0000
100	5.91	0.00	0.00	0.0000	981.21	0.0000
150	2.76	0.00	0.00	0.0000	669.93	0.0000
200	1.60	0.00	0.00	0.0000	487.14	0.0000
250	1.05	0.00	0.00	0.0000	367.88	0.0000
500	0.28	0.00	0.00	0.0000	145.98	0.0000
1000	0.07	0.00	0.00	0.0000	53.80	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	15.58	0.00	0.00	0.0000	1242.49	0.0000
30	24.65	0.00	0.00	0.0000	1456.60	0.0000
40	18.32	0.00	0.00	0.0000	1455.87	0.0000
50	16.79	0.00	0.00	0.0000	1716.38	0.0000
60	15.06	0.00	0.00	0.0000	1622.23	0.0000
80	8.95	0.00	0.00	0.0000	1243.92	0.0000
100	5.91	0.00	0.00	0.0000	981.21	0.0000
150	2.76	0.00	0.00	0.0000	669.93	0.0000
200	1.60	0.00	0.00	0.0000	487.14	0.0000
250	1.05	0.00	0.00	0.0000	367.88	0.0000
500	0.28	0.00	0.00	0.0000	145.98	0.0000
1000	0.07	0.00	0.00	0.0000	53.80	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	13.61	5.80	0.0659	0.0175
30	21.54	9.17	0.1043	0.0205
40	16.01	6.81	0.0775	0.0205
50	14.67	6.25	0.0710	0.0242
60	13.16	5.60	0.0637	0.0228
80	7.82	3.33	0.0379	0.0175
100	5.16	2.20	0.0250	0.0138
150	2.41	1.03	0.0117	0.0094
200	1.40	0.60	0.0068	0.0069
250	0.92	0.39	0.0044	0.0052
500	0.24	0.10	0.0012	0.0021
1000	0.06	0.03	0.0003	0.0008

Facility G-03 - 55% Perc, 25% MeCl

Met Set: Oakland

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	15.58	7.97	3.39	0.0659	1242.49	0.0102
30	24.65	12.61	5.37	0.1043	1456.60	0.0120
40	18.32	9.37	3.99	0.0775	1455.87	0.0120
50	16.79	8.59	3.66	0.0710	1716.38	0.0141
60	15.06	7.70	3.28	0.0637	1622.23	0.0134
80	8.95	4.58	1.95	0.0379	1243.92	0.0102
100	5.91	3.02	1.29	0.0250	981.21	0.0081
150	2.76	1.41	0.60	0.0117	669.93	0.0055
200	1.60	0.82	0.35	0.0068	487.14	0.0040
250	1.05	0.54	0.23	0.0044	367.88	0.0030
500	0.28	0.14	0.06	0.0012	145.98	0.0012
1000	0.07	0.04	0.02	0.0003	53.80	0.0004

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	15.58	0.61	0.26	0.0002	1242.49	0.0066
30	24.65	0.97	0.41	0.0003	1456.60	0.0078
40	18.32	0.72	0.31	0.0002	1455.87	0.0078
50	16.79	0.66	0.28	0.0002	1716.38	0.0092
60	15.06	0.59	0.25	0.0002	1622.23	0.0087
80	8.95	0.35	0.15	0.0001	1243.92	0.0067
100	5.91	0.23	0.10	0.0001	981.21	0.0052
150	2.76	0.11	0.05	3.6E-05	669.93	0.0036
200	1.60	0.06	0.03	2.1E-05	487.14	0.0026
250	1.05	0.04	0.02	1.4E-05	367.88	0.0020
500	0.28	0.01	0.00	3.7E-06	145.98	0.0008
1000	0.07	0.00	0.00	9.2E-07	53.80	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	15.58	0.00	0.00	0.0000	1242.49	0.0000
30	24.65	0.00	0.00	0.0000	1456.60	0.0000
40	18.32	0.00	0.00	0.0000	1455.87	0.0000
50	16.79	0.00	0.00	0.0000	1716.38	0.0000
60	15.06	0.00	0.00	0.0000	1622.23	0.0000
80	8.95	0.00	0.00	0.0000	1243.92	0.0000
100	5.91	0.00	0.00	0.0000	981.21	0.0000
150	2.76	0.00	0.00	0.0000	669.93	0.0000
200	1.60	0.00	0.00	0.0000	487.14	0.0000
250	1.05	0.00	0.00	0.0000	367.88	0.0000
500	0.28	0.00	0.00	0.0000	145.98	0.0000
1000	0.07	0.00	0.00	0.0000	53.80	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	8.58	3.65	0.0661	0.0169
30	13.58	5.78	0.1046	0.0198
40	10.09	4.30	0.0778	0.0198
50	9.25	3.94	0.0713	0.0233
60	8.30	3.53	0.0639	0.0220
80	4.93	2.10	0.0380	0.0169
100	3.26	1.39	0.0251	0.0133
150	1.52	0.65	0.0117	0.0091
200	0.88	0.38	0.0068	0.0066
250	0.58	0.25	0.0045	0.0050
500	0.15	0.07	0.0012	0.0020
1000	0.04	0.02	0.0003	0.0007

Facility G-03 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Oakland

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	15.58	5.79	2.47	0.0280	1242.49	0.0074
30	24.65	9.16	3.90	0.0444	1456.60	0.0087
40	18.32	6.81	2.90	0.0330	1455.87	0.0087
50	16.79	6.24	2.66	0.0302	1716.38	0.0103
60	15.06	5.60	2.38	0.0271	1622.23	0.0097
80	8.95	3.33	1.42	0.0161	1243.92	0.0075
100	5.91	2.20	0.94	0.0106	981.21	0.0059
150	2.76	1.03	0.44	0.0050	669.93	0.0040
200	1.60	0.59	0.25	0.0029	487.14	0.0029
250	1.05	0.39	0.17	0.0019	367.88	0.0022
500	0.28	0.10	0.04	0.0005	145.98	0.0009
1000	0.07	0.03	0.01	0.0001	53.80	0.0003

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	15.58	0.74	0.31	0.0002	1242.49	0.0080
30	24.65	1.17	0.50	0.0004	1456.60	0.0093
40	18.32	0.87	0.37	0.0003	1455.87	0.0093
50	16.79	0.79	0.34	0.0003	1716.38	0.0110
60	15.06	0.71	0.30	0.0002	1622.23	0.0104
80	8.95	0.42	0.18	0.0001	1243.92	0.0080
100	5.91	0.28	0.12	0.0001	981.21	0.0063
150	2.76	0.13	0.06	4.4E-05	669.93	0.0043
200	1.60	0.08	0.03	2.5E-05	487.14	0.0031
250	1.05	0.05	0.02	1.7E-05	367.88	0.0024
500	0.28	0.01	0.01	4.4E-06	145.98	0.0009
1000	0.07	0.00	0.00	1.1E-06	53.80	0.0003

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	15.58	0.98	0.42	0.0008	1242.49	0.0000
30	24.65	1.55	0.66	0.0012	1456.60	0.0000
40	18.32	1.15	0.49	0.0009	1455.87	0.0000
50	16.79	1.06	0.45	0.0008	1716.38	0.0000
60	15.06	0.95	0.40	0.0007	1622.23	0.0000
80	8.95	0.56	0.24	0.0004	1243.92	0.0000
100	5.91	0.37	0.16	0.0003	981.21	0.0000
150	2.76	0.17	0.07	0.0001	669.93	0.0000
200	1.60	0.10	0.04	0.0001	487.14	0.0000
250	1.05	0.07	0.03	0.0001	367.88	0.0000
500	0.28	0.02	0.01	1.4E-05	145.98	0.0000
1000	0.07	0.00	0.00	3.4E-06	53.80	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	7.51	3.20	0.0291	0.0154
30	11.88	5.06	0.0460	0.0181
40	8.83	3.76	0.0342	0.0181
50	8.09	3.44	0.0313	0.0213
60	7.26	3.09	0.0281	0.0201
80	4.31	1.84	0.0167	0.0154
100	2.85	1.21	0.0110	0.0122
150	1.33	0.57	0.0051	0.0083
200	0.77	0.33	0.0030	0.0060
250	0.51	0.22	0.0020	0.0046
500	0.13	0.06	0.0005	0.0018
1000	0.03	0.01	0.0001	0.0007

Facility G-03 - 55% Perc, 43% TCE

Met Set: Oakland

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	15.58	7.97	3.39	0.0386	1242.49	0.0102
30	24.65	12.61	5.37	0.0611	1456.60	0.0120
40	18.32	9.37	3.99	0.0454	1455.87	0.0120
50	16.79	8.59	3.66	0.0416	1716.38	0.0141
60	15.06	7.70	3.28	0.0373	1622.23	0.0134
80	8.95	4.58	1.95	0.0222	1243.92	0.0102
100	5.91	3.02	1.29	0.0146	981.21	0.0081
150	2.76	1.41	0.60	0.0068	669.93	0.0055
200	1.60	0.82	0.35	0.0040	487.14	0.0040
250	1.05	0.54	0.23	0.0026	367.88	0.0030
500	0.28	0.14	0.06	0.0007	145.98	0.0012
1000	0.07	0.04	0.02	0.0002	53.80	0.0004

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	15.58	0.00	0.00	0.0000	1242.49	0.0000
30	24.65	0.00	0.00	0.0000	1456.60	0.0000
40	18.32	0.00	0.00	0.0000	1455.87	0.0000
50	16.79	0.00	0.00	0.0000	1716.38	0.0000
60	15.06	0.00	0.00	0.0000	1622.23	0.0000
80	8.95	0.00	0.00	0.0000	1243.92	0.0000
100	5.91	0.00	0.00	0.0000	981.21	0.0000
150	2.76	0.00	0.00	0.0000	669.93	0.0000
200	1.60	0.00	0.00	0.0000	487.14	0.0000
250	1.05	0.00	0.00	0.0000	367.88	0.0000
500	0.28	0.00	0.00	0.0000	145.98	0.0000
1000	0.07	0.00	0.00	0.0000	53.80	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	15.58	2.11	0.90	0.0016	1242.49	0.0000
30	24.65	3.34	1.42	0.0026	1456.60	0.0000
40	18.32	2.48	1.06	0.0019	1455.87	0.0000
50	16.79	2.27	0.97	0.0018	1716.38	0.0000
60	15.06	2.04	0.87	0.0016	1622.23	0.0000
80	8.95	1.21	0.52	0.0009	1243.92	0.0000
100	5.91	0.80	0.34	0.0006	981.21	0.0000
150	2.76	0.37	0.16	0.0003	669.93	0.0000
200	1.60	0.22	0.09	0.0002	487.14	0.0000
250	1.05	0.14	0.06	0.0001	367.88	0.0000
500	0.28	0.04	0.02	3.0E-05	145.98	0.0000
1000	0.07	0.01	0.00	7.4E-06	53.80	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	10.08	4.29	0.0402	0.0102
30	15.95	6.79	0.0637	0.0120
40	11.85	5.05	0.0473	0.0120
50	10.86	4.62	0.0434	0.0141
60	9.74	4.15	0.0389	0.0134
80	5.79	2.46	0.0231	0.0102
100	3.82	1.63	0.0153	0.0081
150	1.79	0.76	0.0071	0.0055
200	1.04	0.44	0.0041	0.0040
250	0.68	0.29	0.0027	0.0030
500	0.18	0.08	0.0007	0.0012
1000	0.05	0.02	0.0002	0.0004

Facility G-03 - 94% Perc

Met Set: Default -0

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815
Ann Rate [g/s]: 0.1481

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	64.92	27.64	0.3144	2744.96	0.0386
30	64.57	56.42	24.02	0.2732	2385.45	0.0336
40	56.52	49.39	21.02	0.2392	2088.05	0.0294
50	49.84	43.55	18.54	0.2109	1841.40	0.0259
60	44.27	38.69	16.47	0.1873	1635.59	0.0230
80	35.62	31.13	13.25	0.1507	1315.96	0.0185
100	29.32	25.62	10.90	0.1241	1083.10	0.0152
150	19.45	17.00	7.24	0.0823	718.69	0.0101
200	13.97	12.21	5.20	0.0591	516.25	0.0073
250	10.61	9.27	3.94	0.0449	391.81	0.0055
500	4.18	3.66	1.56	0.0177	154.56	0.0022
1000	1.58	1.38	0.59	0.0067	58.40	0.0008

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	64.92	27.64	0.3144	0.0386
30	56.42	24.02	0.2732	0.0336
40	49.39	21.02	0.2392	0.0294
50	43.55	18.54	0.2109	0.0259
60	38.69	16.47	0.1873	0.0230
80	31.13	13.25	0.1507	0.0185
100	25.62	10.90	0.1241	0.0152
150	17.00	7.24	0.0823	0.0101
200	12.21	5.20	0.0591	0.0073
250	9.27	3.94	0.0449	0.0055
500	3.66	1.56	0.0177	0.0022
1000	1.38	0.59	0.0067	0.0008

Facility G-03 - 55% Perc, 25% MeCl

Met Set: Default -0

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	38.01	16.18	0.1841	2744.96	0.0226
30	64.57	33.03	14.06	0.1600	2385.45	0.0196
40	56.52	28.91	12.31	0.1400	2088.05	0.0172
50	49.84	25.50	10.85	0.1235	1841.40	0.0152
60	44.27	22.65	9.64	0.1097	1635.59	0.0135
80	35.62	18.22	7.76	0.0882	1315.96	0.0108
100	29.32	15.00	6.38	0.0726	1083.10	0.0089
150	19.45	9.95	4.24	0.0482	718.69	0.0059
200	13.97	7.15	3.04	0.0346	516.25	0.0043
250	10.61	5.43	2.31	0.0263	391.81	0.0032
500	4.18	2.14	0.91	0.0104	154.56	0.0013
1000	1.58	0.81	0.34	0.0039	58.40	0.0005

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	2.93	1.25	0.0010	2744.96	0.0147
30	64.57	2.54	1.08	0.0008	2385.45	0.0128
40	56.52	2.23	0.95	0.0007	2088.05	0.0112
50	49.84	1.96	0.84	0.0007	1841.40	0.0099
60	44.27	1.74	0.74	0.0006	1635.59	0.0088
80	35.62	1.40	0.60	0.0005	1315.96	0.0070
100	29.32	1.16	0.49	0.0004	1083.10	0.0058
150	19.45	0.77	0.33	0.0003	718.69	0.0038
200	13.97	0.55	0.23	0.0002	516.25	0.0028
250	10.61	0.42	0.18	0.0001	391.81	0.0021
500	4.18	0.16	0.07	0.0001	154.56	0.0008
1000	1.58	0.06	0.03	2.1E-05	58.40	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	40.94	17.43	0.1850	0.0373
30	35.57	15.14	0.1608	0.0324
40	31.14	13.26	0.1408	0.0284
50	27.46	11.69	0.1241	0.0250
60	24.39	10.38	0.1103	0.0222
80	19.62	8.35	0.0887	0.0179
100	16.15	6.88	0.0730	0.0147
150	10.72	4.56	0.0484	0.0098
200	7.70	3.28	0.0348	0.0070
250	5.84	2.49	0.0264	0.0053
500	2.30	0.98	0.0104	0.0021
1000	0.87	0.37	0.0039	0.0008

Facility G-03 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Default -0

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	27.62	11.76	0.1337	2744.96	0.0164
30	64.57	24.00	10.22	0.1162	2385.45	0.0143
40	56.52	21.01	8.94	0.1017	2088.05	0.0125
50	49.84	18.53	7.89	0.0897	1841.40	0.0110
60	44.27	16.46	7.01	0.0797	1635.59	0.0098
80	35.62	13.24	5.64	0.0641	1315.96	0.0079
100	29.32	10.90	4.64	0.0528	1083.10	0.0065
150	19.45	7.23	3.08	0.0350	718.69	0.0043
200	13.97	5.19	2.21	0.0252	516.25	0.0031
250	10.61	3.94	1.68	0.0191	391.81	0.0023
500	4.18	1.56	0.66	0.0075	154.56	0.0009
1000	1.58	0.59	0.25	0.0028	58.40	0.0003

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	3.51	1.50	0.0012	2744.96	0.0176
30	64.57	3.05	1.30	0.0010	2385.45	0.0153
40	56.52	2.67	1.14	0.0009	2088.05	0.0134
50	49.84	2.36	1.00	0.0008	1841.40	0.0118
60	44.27	2.09	0.89	0.0007	1635.59	0.0105
80	35.62	1.68	0.72	0.0006	1315.96	0.0084
100	29.32	1.39	0.59	0.0005	1083.10	0.0069
150	19.45	0.92	0.39	0.0003	718.69	0.0046
200	13.97	0.66	0.28	0.0002	516.25	0.0033
250	10.61	0.50	0.21	0.0002	391.81	0.0025
500	4.18	0.20	0.08	0.0001	154.56	0.0010
1000	1.58	0.07	0.03	2.5E-05	58.40	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	4.68	1.99	0.0037	2744.96	0.0000
30	64.57	4.07	1.73	0.0032	2385.45	0.0000
40	56.52	3.56	1.52	0.0028	2088.05	0.0000
50	49.84	3.14	1.34	0.0025	1841.40	0.0000
60	44.27	2.79	1.19	0.0022	1635.59	0.0000
80	35.62	2.24	0.96	0.0018	1315.96	0.0000
100	29.32	1.85	0.79	0.0014	1083.10	0.0000
150	19.45	1.23	0.52	0.0010	718.69	0.0000
200	13.97	0.88	0.37	0.0007	516.25	0.0000
250	10.61	0.67	0.28	0.0005	391.81	0.0000
500	4.18	0.26	0.11	0.0002	154.56	0.0000
1000	1.58	0.10	0.04	0.0001	58.40	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	35.81	15.25	0.1386	0.0340
30	31.12	13.25	0.1204	0.0296
40	27.24	11.60	0.1054	0.0259
50	24.02	10.23	0.0930	0.0228
60	21.34	9.08	0.0826	0.0203
80	17.17	7.31	0.0664	0.0163
100	14.13	6.02	0.0547	0.0134
150	9.38	3.99	0.0363	0.0089
200	6.74	2.87	0.0261	0.0064
250	5.11	2.18	0.0198	0.0049
500	2.02	0.86	0.0078	0.0019
1000	0.76	0.32	0.0029	0.0007

Facility G-03 - 55% Perc, 43% TCE

Met Set: Default -0

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	38.01	16.18	0.1841	2744.96	0.0226
30	64.57	33.03	14.06	0.1600	2385.45	0.0196
40	56.52	28.91	12.31	0.1400	2088.05	0.0172
50	49.84	25.50	10.85	0.1235	1841.40	0.0152
60	44.27	22.65	9.64	0.1097	1635.59	0.0135
80	35.62	18.22	7.76	0.0882	1315.96	0.0108
100	29.32	15.00	6.38	0.0726	1083.10	0.0089
150	19.45	9.95	4.24	0.0482	718.69	0.0059
200	13.97	7.15	3.04	0.0346	516.25	0.0043
250	10.61	5.43	2.31	0.0263	391.81	0.0032
500	4.18	2.14	0.91	0.0104	154.56	0.0013
1000	1.58	0.81	0.34	0.0039	58.40	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	10.06	4.28	0.0079	2744.96	0.0000
30	64.57	8.74	3.72	0.0068	2385.45	0.0000
40	56.52	7.65	3.26	0.0060	2088.05	0.0000
50	49.84	6.75	2.87	0.0053	1841.40	0.0000
60	44.27	5.99	2.55	0.0047	1635.59	0.0000
80	35.62	4.82	2.05	0.0038	1315.96	0.0000
100	29.32	3.97	1.69	0.0031	1083.10	0.0000
150	19.45	2.63	1.12	0.0021	718.69	0.0000
200	13.97	1.89	0.81	0.0015	516.25	0.0000
250	10.61	1.44	0.61	0.0011	391.81	0.0000
500	4.18	0.57	0.24	0.0004	154.56	0.0000
1000	1.58	0.21	0.09	0.0002	58.40	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	48.07	20.46	0.1919	0.0226
30	41.77	17.78	0.1668	0.0196
40	36.56	15.56	0.1460	0.0172
50	32.25	13.73	0.1287	0.0152
60	28.64	12.19	0.1144	0.0135
80	23.04	9.81	0.0920	0.0108
100	18.97	8.07	0.0757	0.0089
150	12.59	5.36	0.0502	0.0059
200	9.04	3.85	0.0361	0.0043
250	6.86	2.92	0.0274	0.0032
500	2.71	1.15	0.0108	0.0013
1000	1.02	0.44	0.0041	0.0005

Risk Assessment Summary - 3 Generic Facilities
Multicomponent Impacts - Brake Cleaners - Acute

Facility G-03 - 94% Perc

Met Set: Fresno

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815
Ann Rate [g/s]: 0.1481

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	20.09	17.55	7.47	0.0850	1266.24	0.0178
30	34.50	30.15	12.83	0.1460	1668.13	0.0235
40	26.10	22.81	9.71	0.1104	1472.59	0.0207
50	24.31	21.24	9.04	0.1029	1934.45	0.0272
60	20.92	18.28	7.78	0.0885	1746.52	0.0246
80	12.26	10.71	4.56	0.0519	1403.39	0.0198
100	8.02	7.01	2.98	0.0339	1167.81	0.0164
150	3.69	3.22	1.37	0.0156	760.67	0.0107
200	2.12	1.85	0.79	0.0090	527.81	0.0074
250	1.37	1.20	0.51	0.0058	395.54	0.0056
500	0.35	0.31	0.13	0.0015	151.49	0.0021
1000	0.09	0.08	0.03	0.0004	55.11	0.0008

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	20.09	0.00	0.00	0.0000	1266.24	0.0000
30	34.50	0.00	0.00	0.0000	1668.13	0.0000
40	26.10	0.00	0.00	0.0000	1472.59	0.0000
50	24.31	0.00	0.00	0.0000	1934.45	0.0000
60	20.92	0.00	0.00	0.0000	1746.52	0.0000
80	12.26	0.00	0.00	0.0000	1403.39	0.0000
100	8.02	0.00	0.00	0.0000	1167.81	0.0000
150	3.69	0.00	0.00	0.0000	760.67	0.0000
200	2.12	0.00	0.00	0.0000	527.81	0.0000
250	1.37	0.00	0.00	0.0000	395.54	0.0000
500	0.35	0.00	0.00	0.0000	151.49	0.0000
1000	0.09	0.00	0.00	0.0000	55.11	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	20.09	0.00	0.00	0.0000	1266.24	0.0000
30	34.50	0.00	0.00	0.0000	1668.13	0.0000
40	26.10	0.00	0.00	0.0000	1472.59	0.0000
50	24.31	0.00	0.00	0.0000	1934.45	0.0000
60	20.92	0.00	0.00	0.0000	1746.52	0.0000
80	12.26	0.00	0.00	0.0000	1403.39	0.0000
100	8.02	0.00	0.00	0.0000	1167.81	0.0000
150	3.69	0.00	0.00	0.0000	760.67	0.0000
200	2.12	0.00	0.00	0.0000	527.81	0.0000
250	1.37	0.00	0.00	0.0000	395.54	0.0000
500	0.35	0.00	0.00	0.0000	151.49	0.0000
1000	0.09	0.00	0.00	0.0000	55.11	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	17.55	7.47	0.0850	0.0178
30	30.15	12.83	0.1460	0.0235
40	22.81	9.71	0.1104	0.0207
50	21.24	9.04	0.1029	0.0272
60	18.28	7.78	0.0885	0.0246
80	10.71	4.56	0.0519	0.0198
100	7.01	2.98	0.0339	0.0164
150	3.22	1.37	0.0156	0.0107
200	1.85	0.79	0.0090	0.0074
250	1.20	0.51	0.0058	0.0056
500	0.31	0.13	0.0015	0.0021
1000	0.08	0.03	0.0004	0.0008

Facility G-03 - 55% Perc, 25% MeCl

Met Set: Fresno

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	20.09	10.28	4.37	0.0498	1266.24	0.0104
30	34.50	17.65	7.51	0.0855	1668.13	0.0137
40	26.10	13.35	5.68	0.0647	1472.59	0.0121
50	24.31	12.44	5.29	0.0602	1934.45	0.0159
60	20.92	10.70	4.56	0.0518	1746.52	0.0144
80	12.26	6.27	2.67	0.0304	1403.39	0.0116
100	8.02	4.10	1.75	0.0199	1167.81	0.0096
150	3.69	1.89	0.80	0.0091	760.67	0.0063
200	2.12	1.08	0.46	0.0053	527.81	0.0043
250	1.37	0.70	0.30	0.0034	395.54	0.0033
500	0.35	0.18	0.08	0.0009	151.49	0.0012
1000	0.09	0.05	0.02	0.0002	55.11	0.0005

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	20.09	0.79	0.34	0.0003	1266.24	0.0068
30	34.50	1.36	0.58	0.0005	1668.13	0.0089
40	26.10	1.03	0.44	0.0003	1472.59	0.0079
50	24.31	0.96	0.41	0.0003	1934.45	0.0103
60	20.92	0.82	0.35	0.0003	1746.52	0.0093
80	12.26	0.48	0.21	0.0002	1403.39	0.0075
100	8.02	0.32	0.13	0.0001	1167.81	0.0062
150	3.69	0.15	0.06	4.8E-05	760.67	0.0041
200	2.12	0.08	0.04	2.8E-05	527.81	0.0028
250	1.37	0.05	0.02	1.8E-05	395.54	0.0021
500	0.35	0.01	0.01	4.6E-06	151.49	0.0008
1000	0.09	0.00	0.00	1.2E-06	55.11	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	20.09	0.00	0.00	0.0000	1266.24	0.0000
30	34.50	0.00	0.00	0.0000	1668.13	0.0000
40	26.10	0.00	0.00	0.0000	1472.59	0.0000
50	24.31	0.00	0.00	0.0000	1934.45	0.0000
60	20.92	0.00	0.00	0.0000	1746.52	0.0000
80	12.26	0.00	0.00	0.0000	1403.39	0.0000
100	8.02	0.00	0.00	0.0000	1167.81	0.0000
150	3.69	0.00	0.00	0.0000	760.67	0.0000
200	2.12	0.00	0.00	0.0000	527.81	0.0000
250	1.37	0.00	0.00	0.0000	395.54	0.0000
500	0.35	0.00	0.00	0.0000	151.49	0.0000
1000	0.09	0.00	0.00	0.0000	55.11	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	11.07	4.71	0.0500	0.0172
30	19.01	8.09	0.0859	0.0227
40	14.38	6.12	0.0650	0.0200
50	13.39	5.70	0.0605	0.0263
60	11.53	4.91	0.0521	0.0237
80	6.75	2.88	0.0305	0.0191
100	4.42	1.88	0.0200	0.0159
150	2.03	0.87	0.0092	0.0103
200	1.17	0.50	0.0053	0.0072
250	0.75	0.32	0.0034	0.0054
500	0.19	0.08	0.0009	0.0021
1000	0.05	0.02	0.0002	0.0007

Facility G-03 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Fresno

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	20.09	7.47	3.18	0.0362	1266.24	0.0076
30	34.50	12.82	5.46	0.0621	1668.13	0.0100
40	26.10	9.70	4.13	0.0470	1472.59	0.0088
50	24.31	9.04	3.85	0.0438	1934.45	0.0116
60	20.92	7.78	3.31	0.0377	1746.52	0.0105
80	12.26	4.56	1.94	0.0221	1403.39	0.0084
100	8.02	2.98	1.27	0.0144	1167.81	0.0070
150	3.69	1.37	0.58	0.0066	760.67	0.0046
200	2.12	0.79	0.34	0.0038	527.81	0.0032
250	1.37	0.51	0.22	0.0025	395.54	0.0024
500	0.35	0.13	0.06	0.0006	151.49	0.0009
1000	0.09	0.03	0.01	0.0002	55.11	0.0003

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	20.09	0.95	0.40	0.0003	1266.24	0.0081
30	34.50	1.63	0.69	0.0005	1668.13	0.0107
40	26.10	1.23	0.53	0.0004	1472.59	0.0094
50	24.31	1.15	0.49	0.0004	1934.45	0.0124
60	20.92	0.99	0.42	0.0003	1746.52	0.0112
80	12.26	0.58	0.25	0.0002	1403.39	0.0090
100	8.02	0.38	0.16	0.0001	1167.81	0.0075
150	3.69	0.17	0.07	0.0001	760.67	0.0049
200	2.12	0.10	0.04	3.3E-05	527.81	0.0034
250	1.37	0.06	0.03	2.2E-05	395.54	0.0025
500	0.35	0.02	0.01	5.5E-06	151.49	0.0010
1000	0.09	0.00	0.00	1.4E-06	55.11	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	20.09	1.27	0.54	0.0010	1266.24	0.0000
30	34.50	2.17	0.93	0.0017	1668.13	0.0000
40	26.10	1.64	0.70	0.0013	1472.59	0.0000
50	24.31	1.53	0.65	0.0012	1934.45	0.0000
60	20.92	1.32	0.56	0.0010	1746.52	0.0000
80	12.26	0.77	0.33	0.0006	1403.39	0.0000
100	8.02	0.51	0.22	0.0004	1167.81	0.0000
150	3.69	0.23	0.10	0.0002	760.67	0.0000
200	2.12	0.13	0.06	0.0001	527.81	0.0000
250	1.37	0.09	0.04	0.0001	395.54	0.0000
500	0.35	0.02	0.01	1.7E-05	151.49	0.0000
1000	0.09	0.01	0.00	4.4E-06	55.11	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	9.68	4.12	0.0375	0.0157
30	16.63	7.08	0.0643	0.0207
40	12.58	5.36	0.0487	0.0183
50	11.72	4.99	0.0453	0.0240
60	10.08	4.29	0.0390	0.0217
80	5.91	2.52	0.0229	0.0174
100	3.87	1.65	0.0150	0.0145
150	1.78	0.76	0.0069	0.0094
200	1.02	0.43	0.0040	0.0065
250	0.66	0.28	0.0026	0.0049
500	0.17	0.07	0.0007	0.0019
1000	0.04	0.02	0.0002	0.0007

Facility G-03 - 55% Perc, 43% TCE

Met Set: Fresno

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	20.09	10.28	4.37	0.0498	1266.24	0.0104
30	34.50	17.65	7.51	0.0855	1668.13	0.0137
40	26.10	13.35	5.68	0.0647	1472.59	0.0121
50	24.31	12.44	5.29	0.0602	1934.45	0.0159
60	20.92	10.70	4.56	0.0518	1746.52	0.0144
80	12.26	6.27	2.67	0.0304	1403.39	0.0116
100	8.02	4.10	1.75	0.0199	1167.81	0.0096
150	3.69	1.89	0.80	0.0091	760.67	0.0063
200	2.12	1.08	0.46	0.0053	527.81	0.0043
250	1.37	0.70	0.30	0.0034	395.54	0.0033
500	0.35	0.18	0.08	0.0009	151.49	0.0012
1000	0.09	0.05	0.02	0.0002	55.11	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	20.09	0.00	0.00	0.0000	1266.24	0.0000
30	34.50	0.00	0.00	0.0000	1668.13	0.0000
40	26.10	0.00	0.00	0.0000	1472.59	0.0000
50	24.31	0.00	0.00	0.0000	1934.45	0.0000
60	20.92	0.00	0.00	0.0000	1746.52	0.0000
80	12.26	0.00	0.00	0.0000	1403.39	0.0000
100	8.02	0.00	0.00	0.0000	1167.81	0.0000
150	3.69	0.00	0.00	0.0000	760.67	0.0000
200	2.12	0.00	0.00	0.0000	527.81	0.0000
250	1.37	0.00	0.00	0.0000	395.54	0.0000
500	0.35	0.00	0.00	0.0000	151.49	0.0000
1000	0.09	0.00	0.00	0.0000	55.11	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	20.09	2.72	1.16	0.0021	1266.24	0.0000
30	34.50	4.67	1.99	0.0036	1668.13	0.0000
40	26.10	3.53	1.50	0.0028	1472.59	0.0000
50	24.31	3.29	1.40	0.0026	1934.45	0.0000
60	20.92	2.83	1.21	0.0022	1746.52	0.0000
80	12.26	1.66	0.71	0.0013	1403.39	0.0000
100	8.02	1.09	0.46	0.0008	1167.81	0.0000
150	3.69	0.50	0.21	0.0004	760.67	0.0000
200	2.12	0.29	0.12	0.0002	527.81	0.0000
250	1.37	0.19	0.08	0.0001	395.54	0.0000
500	0.35	0.05	0.02	3.7E-05	151.49	0.0000
1000	0.09	0.01	0.01	9.5E-06	55.11	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	13.00	5.53	0.0519	0.0104
30	22.32	9.50	0.0891	0.0137
40	16.88	7.19	0.0674	0.0121
50	15.73	6.69	0.0628	0.0159
60	13.53	5.76	0.0540	0.0144
80	7.93	3.38	0.0317	0.0116
100	5.19	2.21	0.0207	0.0096
150	2.39	1.02	0.0095	0.0063
200	1.37	0.58	0.0055	0.0043
250	0.89	0.38	0.0035	0.0033
500	0.23	0.10	0.0009	0.0012
1000	0.06	0.02	0.0002	0.0005

Facility G-03 - 94% Perc

Met Set: Concord

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815

Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	15.97	6.80	0.0774	1344.83	0.0189
30	41.78	36.51	15.54	0.1768	1964.95	0.0277
40	35.45	30.98	13.19	0.1500	1702.10	0.0240
50	32.92	28.77	12.24	0.1393	2643.95	0.0372
60	26.78	23.40	9.96	0.1133	2498.24	0.0352
80	15.70	13.72	5.84	0.0664	1915.64	0.0270
100	10.33	9.03	3.84	0.0437	1511.07	0.0213
150	4.82	4.21	1.79	0.0204	927.46	0.0131
200	2.79	2.44	1.04	0.0118	633.44	0.0089
250	1.83	1.60	0.68	0.0077	464.37	0.0065
500	0.48	0.42	0.18	0.0020	169.00	0.0024
1000	0.14	0.12	0.05	0.0006	61.00	0.0009

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	0.00	0.00	0.0000	1344.83	0.0000
30	41.78	0.00	0.00	0.0000	1964.95	0.0000
40	35.45	0.00	0.00	0.0000	1702.10	0.0000
50	32.92	0.00	0.00	0.0000	2643.95	0.0000
60	26.78	0.00	0.00	0.0000	2498.24	0.0000
80	15.70	0.00	0.00	0.0000	1915.64	0.0000
100	10.33	0.00	0.00	0.0000	1511.07	0.0000
150	4.82	0.00	0.00	0.0000	927.46	0.0000
200	2.79	0.00	0.00	0.0000	633.44	0.0000
250	1.83	0.00	0.00	0.0000	464.37	0.0000
500	0.48	0.00	0.00	0.0000	169.00	0.0000
1000	0.14	0.00	0.00	0.0000	61.00	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	0.00	0.00	0.0000	1344.83	0.0000
30	41.78	0.00	0.00	0.0000	1964.95	0.0000
40	35.45	0.00	0.00	0.0000	1702.10	0.0000
50	32.92	0.00	0.00	0.0000	2643.95	0.0000
60	26.78	0.00	0.00	0.0000	2498.24	0.0000
80	15.70	0.00	0.00	0.0000	1915.64	0.0000
100	10.33	0.00	0.00	0.0000	1511.07	0.0000
150	4.82	0.00	0.00	0.0000	927.46	0.0000
200	2.79	0.00	0.00	0.0000	633.44	0.0000
250	1.83	0.00	0.00	0.0000	464.37	0.0000
500	0.48	0.00	0.00	0.0000	169.00	0.0000
1000	0.14	0.00	0.00	0.0000	61.00	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	15.97	6.80	0.0774	0.0189
30	36.51	15.54	0.1768	0.0277
40	30.98	13.19	0.1500	0.0240
50	28.77	12.24	0.1393	0.0372
60	23.40	9.96	0.1133	0.0352
80	13.72	5.84	0.0664	0.0270
100	9.03	3.84	0.0437	0.0213
150	4.21	1.79	0.0204	0.0131
200	2.44	1.04	0.0118	0.0089
250	1.60	0.68	0.0077	0.0065
500	0.42	0.18	0.0020	0.0024
1000	0.12	0.05	0.0006	0.0009

Facility G-03 - 55% Perc, 25% MeCl

Met Set: Concord

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	9.35	3.98	0.0453	1344.83	0.0111
30	41.78	21.37	9.10	0.1035	1964.95	0.0162
40	35.45	18.13	7.72	0.0878	1702.10	0.0140
50	32.92	16.84	7.17	0.0815	2643.95	0.0218
60	26.78	13.70	5.83	0.0663	2498.24	0.0206
80	15.70	8.03	3.42	0.0389	1915.64	0.0158
100	10.33	5.28	2.25	0.0256	1511.07	0.0124
150	4.82	2.47	1.05	0.0119	927.46	0.0076
200	2.79	1.43	0.61	0.0069	633.44	0.0052
250	1.83	0.94	0.40	0.0045	464.37	0.0038
500	0.48	0.25	0.10	0.0012	169.00	0.0014
1000	0.14	0.07	0.03	0.0003	61.00	0.0005

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	0.72	0.31	0.0002	1344.83	0.0072
30	41.78	1.65	0.70	0.0005	1964.95	0.0105
40	35.45	1.40	0.59	0.0005	1702.10	0.0091
50	32.92	1.30	0.55	0.0004	2643.95	0.0141
60	26.78	1.06	0.45	0.0004	2498.24	0.0134
80	15.70	0.62	0.26	0.0002	1915.64	0.0102
100	10.33	0.41	0.17	0.0001	1511.07	0.0081
150	4.82	0.19	0.08	0.0001	927.46	0.0050
200	2.79	0.11	0.05	0.0000	633.44	0.0034
250	1.83	0.07	0.03	0.0000	464.37	0.0025
500	0.48	0.02	0.01	0.0000	169.00	0.0009
1000	0.14	0.01	0.00	0.0000	61.00	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	0.00	0.00	0.0000	1344.83	0.0000
30	41.78	0.00	0.00	0.0000	1964.95	0.0000
40	35.45	0.00	0.00	0.0000	1702.10	0.0000
50	32.92	0.00	0.00	0.0000	2643.95	0.0000
60	26.78	0.00	0.00	0.0000	2498.24	0.0000
80	15.70	0.00	0.00	0.0000	1915.64	0.0000
100	10.33	0.00	0.00	0.0000	1511.07	0.0000
150	4.82	0.00	0.00	0.0000	927.46	0.0000
200	2.79	0.00	0.00	0.0000	633.44	0.0000
250	1.83	0.00	0.00	0.0000	464.37	0.0000
500	0.48	0.00	0.00	0.0000	169.00	0.0000
1000	0.14	0.00	0.00	0.0000	61.00	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	10.07	4.29	0.0455	0.0183
30	23.02	9.80	0.1040	0.0267
40	19.53	8.31	0.0883	0.0231
50	18.14	7.72	0.0820	0.0359
60	14.75	6.28	0.0667	0.0339
80	8.65	3.68	0.0391	0.0260
100	5.69	2.42	0.0257	0.0205
150	2.66	1.13	0.0120	0.0126
200	1.54	0.65	0.0069	0.0086
250	1.01	0.43	0.0046	0.0063
500	0.26	0.11	0.0012	0.0023
1000	0.08	0.03	0.0003	0.0008

Facility G-03 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Concord

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	6.79	2.89	0.0329	1344.83	0.0081
30	41.78	15.53	6.61	0.0752	1964.95	0.0118
40	35.45	13.18	5.61	0.0638	1702.10	0.0102
50	32.92	12.24	5.21	0.0593	2643.95	0.0158
60	26.78	9.95	4.24	0.0482	2498.24	0.0150
80	15.70	5.84	2.48	0.0283	1915.64	0.0115
100	10.33	3.84	1.63	0.0186	1511.07	0.0091
150	4.82	1.79	0.76	0.0087	927.46	0.0056
200	2.79	1.04	0.44	0.0050	633.44	0.0038
250	1.83	0.68	0.29	0.0033	464.37	0.0028
500	0.48	0.18	0.08	0.0009	169.00	0.0010
1000	0.14	0.05	0.02	0.0003	61.00	0.0004

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	0.86	0.37	0.0003	1344.83	0.0086
30	41.78	1.98	0.84	0.0007	1964.95	0.0126
40	35.45	1.68	0.71	0.0006	1702.10	0.0109
50	32.92	1.56	0.66	0.0005	2643.95	0.0170
60	26.78	1.27	0.54	0.0004	2498.24	0.0160
80	15.70	0.74	0.32	0.0002	1915.64	0.0123
100	10.33	0.49	0.21	0.0002	1511.07	0.0097
150	4.82	0.23	0.10	0.0001	927.46	0.0059
200	2.79	0.13	0.06	4.4E-05	633.44	0.0041
250	1.83	0.09	0.04	2.9E-05	464.37	0.0030
500	0.48	0.02	0.01	7.6E-06	169.00	0.0011
1000	0.14	0.01	0.00	2.2E-06	61.00	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	1.15	0.49	0.0009	1344.83	0.0000
30	41.78	2.63	1.12	0.0021	1964.95	0.0000
40	35.45	2.23	0.95	0.0017	1702.10	0.0000
50	32.92	2.07	0.88	0.0016	2643.95	0.0000
60	26.78	1.69	0.72	0.0013	2498.24	0.0000
80	15.70	0.99	0.42	0.0008	1915.64	0.0000
100	10.33	0.65	0.28	0.0005	1511.07	0.0000
150	4.82	0.30	0.13	0.0002	927.46	0.0000
200	2.79	0.18	0.07	0.0001	633.44	0.0000
250	1.83	0.12	0.05	0.0001	464.37	0.0000
500	0.48	0.03	0.01	2.4E-05	169.00	0.0000
1000	0.14	0.01	0.00	6.9E-06	61.00	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	8.81	3.75	0.0341	0.0167
30	20.14	8.57	0.0779	0.0244
40	17.09	7.27	0.0661	0.0211
50	15.87	6.75	0.0614	0.0328
60	12.91	5.49	0.0499	0.0310
80	7.57	3.22	0.0293	0.0238
100	4.98	2.12	0.0193	0.0187
150	2.32	0.99	0.0090	0.0115
200	1.34	0.57	0.0052	0.0079
250	0.88	0.38	0.0034	0.0058
500	0.23	0.10	0.0009	0.0021
1000	0.07	0.03	0.0003	0.0008

Facility G-03 - 55% Perc, 43% TCE

Met Set: Concord

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	9.35	3.98	0.0453	1344.83	0.0111
30	41.78	21.37	9.10	0.1035	1964.95	0.0162
40	35.45	18.13	7.72	0.0878	1702.10	0.0140
50	32.92	16.84	7.17	0.0815	2643.95	0.0218
60	26.78	13.70	5.83	0.0663	2498.24	0.0206
80	15.70	8.03	3.42	0.0389	1915.64	0.0158
100	10.33	5.28	2.25	0.0256	1511.07	0.0124
150	4.82	2.47	1.05	0.0119	927.46	0.0076
200	2.79	1.43	0.61	0.0069	633.44	0.0052
250	1.83	0.94	0.40	0.0045	464.37	0.0038
500	0.48	0.25	0.10	0.0012	169.00	0.0014
1000	0.14	0.07	0.03	0.0003	61.00	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	0.00	0.00	0.0000	1344.83	0.0000
30	41.78	0.00	0.00	0.0000	1964.95	0.0000
40	35.45	0.00	0.00	0.0000	1702.10	0.0000
50	32.92	0.00	0.00	0.0000	2643.95	0.0000
60	26.78	0.00	0.00	0.0000	2498.24	0.0000
80	15.70	0.00	0.00	0.0000	1915.64	0.0000
100	10.33	0.00	0.00	0.0000	1511.07	0.0000
150	4.82	0.00	0.00	0.0000	927.46	0.0000
200	2.79	0.00	0.00	0.0000	633.44	0.0000
250	1.83	0.00	0.00	0.0000	464.37	0.0000
500	0.48	0.00	0.00	0.0000	169.00	0.0000
1000	0.14	0.00	0.00	0.0000	61.00	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	18.28	2.48	1.05	0.0019	1344.83	0.0000
30	41.78	5.66	2.41	0.0044	1964.95	0.0000
40	35.45	4.80	2.04	0.0037	1702.10	0.0000
50	32.92	4.46	1.90	0.0035	2643.95	0.0000
60	26.78	3.63	1.54	0.0028	2498.24	0.0000
80	15.70	2.13	0.90	0.0017	1915.64	0.0000
100	10.33	1.40	0.60	0.0011	1511.07	0.0000
150	4.82	0.65	0.28	0.0005	927.46	0.0000
200	2.79	0.38	0.16	0.0003	633.44	0.0000
250	1.83	0.25	0.11	0.0002	464.37	0.0000
500	0.48	0.06	0.03	0.0001	169.00	0.0000
1000	0.14	0.02	0.01	1.5E-05	61.00	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	11.83	5.03	0.0472	0.0111
30	27.03	11.51	0.1079	0.0162
40	22.93	9.76	0.0916	0.0140
50	21.30	9.07	0.0850	0.0218
60	17.32	7.37	0.0692	0.0206
80	10.16	4.32	0.0406	0.0158
100	6.68	2.84	0.0267	0.0124
150	3.12	1.33	0.0124	0.0076
200	1.80	0.77	0.0072	0.0052
250	1.18	0.50	0.0047	0.0038
500	0.31	0.13	0.0012	0.0014
1000	0.09	0.04	0.0004	0.0005

Facility G-03 - 94% Perc

Met Set: Mather

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815

Ann Rate [g/s]: 0.1481

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	10.01	4.26	0.0485	958.09	0.0135
30	25.06	21.90	9.32	0.1060	1290.22	0.0182
40	20.77	18.15	7.73	0.0879	1240.56	0.0175
50	19.28	16.85	7.17	0.0816	1734.69	0.0244
60	15.76	13.77	5.86	0.0667	1546.97	0.0218
80	9.15	8.00	3.40	0.0387	1057.88	0.0149
100	5.97	5.22	2.22	0.0253	790.98	0.0111
150	2.74	2.39	1.02	0.0116	526.98	0.0074
200	1.57	1.37	0.58	0.0066	374.12	0.0053
250	1.02	0.89	0.38	0.0043	280.03	0.0039
500	0.26	0.23	0.10	0.0011	105.06	0.0015
1000	0.07	0.06	0.03	0.0003	38.59	0.0005

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	0.00	0.00	0.0000	958.09	0.0000
30	25.06	0.00	0.00	0.0000	1290.22	0.0000
40	20.77	0.00	0.00	0.0000	1240.56	0.0000
50	19.28	0.00	0.00	0.0000	1734.69	0.0000
60	15.76	0.00	0.00	0.0000	1546.97	0.0000
80	9.15	0.00	0.00	0.0000	1057.88	0.0000
100	5.97	0.00	0.00	0.0000	790.98	0.0000
150	2.74	0.00	0.00	0.0000	526.98	0.0000
200	1.57	0.00	0.00	0.0000	374.12	0.0000
250	1.02	0.00	0.00	0.0000	280.03	0.0000
500	0.26	0.00	0.00	0.0000	105.06	0.0000
1000	0.07	0.00	0.00	0.0000	38.59	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	0.00	0.00	0.0000	958.09	0.0000
30	25.06	0.00	0.00	0.0000	1290.22	0.0000
40	20.77	0.00	0.00	0.0000	1240.56	0.0000
50	19.28	0.00	0.00	0.0000	1734.69	0.0000
60	15.76	0.00	0.00	0.0000	1546.97	0.0000
80	9.15	0.00	0.00	0.0000	1057.88	0.0000
100	5.97	0.00	0.00	0.0000	790.98	0.0000
150	2.74	0.00	0.00	0.0000	526.98	0.0000
200	1.57	0.00	0.00	0.0000	374.12	0.0000
250	1.02	0.00	0.00	0.0000	280.03	0.0000
500	0.26	0.00	0.00	0.0000	105.06	0.0000
1000	0.07	0.00	0.00	0.0000	38.59	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	10.01	4.26	0.0485	0.0135
30	21.90	9.32	0.1060	0.0182
40	18.15	7.73	0.0879	0.0175
50	16.85	7.17	0.0816	0.0244
60	13.77	5.86	0.0667	0.0218
80	8.00	3.40	0.0387	0.0149
100	5.22	2.22	0.0253	0.0111
150	2.39	1.02	0.0116	0.0074
200	1.37	0.58	0.0066	0.0053
250	0.89	0.38	0.0043	0.0039
500	0.23	0.10	0.0011	0.0015
1000	0.06	0.03	0.0003	0.0005

Facility G-03 - 55% Perc, 25% MeCl

Met Set: Mather

55% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.1647 | Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	5.86	2.50	0.0284	958.09	0.0079
30	25.06	12.82	5.46	0.0621	1290.22	0.0106
40	20.77	10.62	4.52	0.0515	1240.56	0.0102
50	19.28	9.86	4.20	0.0478	1734.69	0.0143
60	15.76	8.06	3.43	0.0390	1546.97	0.0127
80	9.15	4.68	1.99	0.0227	1057.88	0.0087
100	5.97	3.05	1.30	0.0148	790.98	0.0065
150	2.74	1.40	0.60	0.0068	526.98	0.0043
200	1.57	0.80	0.34	0.0039	374.12	0.0031
250	1.02	0.52	0.22	0.0025	280.03	0.0023
500	0.26	0.13	0.06	0.0006	105.06	0.0009
1000	0.07	0.04	0.02	0.0002	38.59	0.0003

25% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0749 | Ann Rate [g/s]: 0.0394

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	0.45	0.19	0.0002	958.09	0.0051
30	25.06	0.99	0.42	0.0003	1290.22	0.0069
40	20.77	0.82	0.35	0.0003	1240.56	0.0066
50	19.28	0.76	0.32	0.0003	1734.69	0.0093
60	15.76	0.62	0.26	0.0002	1546.97	0.0083
80	9.15	0.36	0.15	0.0001	1057.88	0.0057
100	5.97	0.24	0.10	0.0001	790.98	0.0042
150	2.74	0.11	0.05	3.6E-05	526.98	0.0028
200	1.57	0.06	0.03	2.1E-05	374.12	0.0020
250	1.02	0.04	0.02	1.3E-05	280.03	0.0015
500	0.26	0.01	0.00	3.4E-06	105.06	0.0006
1000	0.07	0.00	0.00	9.2E-07	38.59	0.0002

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	0.00	0.00	0.0000	958.09	0.0000
30	25.06	0.00	0.00	0.0000	1290.22	0.0000
40	20.77	0.00	0.00	0.0000	1240.56	0.0000
50	19.28	0.00	0.00	0.0000	1734.69	0.0000
60	15.76	0.00	0.00	0.0000	1546.97	0.0000
80	9.15	0.00	0.00	0.0000	1057.88	0.0000
100	5.97	0.00	0.00	0.0000	790.98	0.0000
150	2.74	0.00	0.00	0.0000	526.98	0.0000
200	1.57	0.00	0.00	0.0000	374.12	0.0000
250	1.02	0.00	0.00	0.0000	280.03	0.0000
500	0.26	0.00	0.00	0.0000	105.06	0.0000
1000	0.07	0.00	0.00	0.0000	38.59	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	6.31	2.69	0.0285	0.0130
30	13.81	5.88	0.0624	0.0175
40	11.44	4.87	0.0517	0.0169
50	10.62	4.52	0.0480	0.0236
60	8.68	3.70	0.0392	0.0210
80	5.04	2.15	0.0228	0.0144
100	3.29	1.40	0.0149	0.0107
150	1.51	0.64	0.0068	0.0072
200	0.86	0.37	0.0039	0.0051
250	0.56	0.24	0.0025	0.0038
500	0.14	0.06	0.0006	0.0014
1000	0.04	0.02	0.0002	0.0005

Facility G-03 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Mather

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	4.26	1.81	0.0206	958.09	0.0057
30	25.06	9.31	3.97	0.0451	1290.22	0.0077
40	20.77	7.72	3.29	0.0374	1240.56	0.0074
50	19.28	7.17	3.05	0.0347	1734.69	0.0104
60	15.76	5.86	2.49	0.0284	1546.97	0.0093
80	9.15	3.40	1.45	0.0165	1057.88	0.0063
100	5.97	2.22	0.94	0.0107	790.98	0.0047
150	2.74	1.02	0.43	0.0049	526.98	0.0032
200	1.57	0.58	0.25	0.0028	374.12	0.0022
250	1.02	0.38	0.16	0.0018	280.03	0.0017
500	0.26	0.10	0.04	0.0005	105.06	0.0006
1000	0.07	0.03	0.01	0.0001	38.59	0.0002

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	0.54	0.23	0.0002	958.09	0.0061
30	25.06	1.19	0.50	0.0004	1290.22	0.0083
40	20.77	0.98	0.42	0.0003	1240.56	0.0080
50	19.28	0.91	0.39	0.0003	1734.69	0.0111
60	15.76	0.75	0.32	0.0002	1546.97	0.0099
80	9.15	0.43	0.18	0.0001	1057.88	0.0068
100	5.97	0.28	0.12	0.0001	790.98	0.0051
150	2.74	0.13	0.06	4.3E-05	526.98	0.0034
200	1.57	0.07	0.03	2.5E-05	374.12	0.0024
250	1.02	0.05	0.02	1.6E-05	280.03	0.0018
500	0.26	0.01	0.01	4.1E-06	105.06	0.0007
1000	0.07	0.00	0.00	1.1E-06	38.59	0.0002

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	0.72	0.31	0.0006	958.09	0.0000
30	25.06	1.58	0.67	0.0012	1290.22	0.0000
40	20.77	1.31	0.56	0.0010	1240.56	0.0000
50	19.28	1.21	0.52	0.0009	1734.69	0.0000
60	15.76	0.99	0.42	0.0008	1546.97	0.0000
80	9.15	0.58	0.25	0.0005	1057.88	0.0000
100	5.97	0.38	0.16	0.0003	790.98	0.0000
150	2.74	0.17	0.07	0.0001	526.98	0.0000
200	1.57	0.10	0.04	0.0001	374.12	0.0000
250	1.02	0.06	0.03	0.0001	280.03	0.0000
500	0.26	0.02	0.01	1.3E-05	105.06	0.0000
1000	0.07	0.00	0.00	3.4E-06	38.59	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	5.52	2.35	0.0214	0.0119
30	12.08	5.14	0.0467	0.0160
40	10.01	4.26	0.0387	0.0154
50	9.29	3.96	0.0360	0.0215
60	7.60	3.23	0.0294	0.0192
80	4.41	1.88	0.0171	0.0131
100	2.88	1.22	0.0111	0.0098
150	1.32	0.56	0.0051	0.0065
200	0.76	0.32	0.0029	0.0046
250	0.49	0.21	0.0019	0.0035
500	0.13	0.05	0.0005	0.0013
1000	0.03	0.01	0.0001	0.0005

Facility G-03 - 55% Perc, 43% TCE

Met Set: Mather

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	5.86	2.50	0.0284	958.09	0.0079
30	25.06	12.82	5.46	0.0621	1290.22	0.0106
40	20.77	10.62	4.52	0.0515	1240.56	0.0102
50	19.28	9.86	4.20	0.0478	1734.69	0.0143
60	15.76	8.06	3.43	0.0390	1546.97	0.0127
80	9.15	4.68	1.99	0.0227	1057.88	0.0087
100	5.97	3.05	1.30	0.0148	790.98	0.0065
150	2.74	1.40	0.60	0.0068	526.98	0.0043
200	1.57	0.80	0.34	0.0039	374.12	0.0031
250	1.02	0.52	0.22	0.0025	280.03	0.0023
500	0.26	0.13	0.06	0.0006	105.06	0.0009
1000	0.07	0.04	0.02	0.0002	38.59	0.0003

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	0.00	0.00	0.0000	958.09	0.0000
30	25.06	0.00	0.00	0.0000	1290.22	0.0000
40	20.77	0.00	0.00	0.0000	1240.56	0.0000
50	19.28	0.00	0.00	0.0000	1734.69	0.0000
60	15.76	0.00	0.00	0.0000	1546.97	0.0000
80	9.15	0.00	0.00	0.0000	1057.88	0.0000
100	5.97	0.00	0.00	0.0000	790.98	0.0000
150	2.74	0.00	0.00	0.0000	526.98	0.0000
200	1.57	0.00	0.00	0.0000	374.12	0.0000
250	1.02	0.00	0.00	0.0000	280.03	0.0000
500	0.26	0.00	0.00	0.0000	105.06	0.0000
1000	0.07	0.00	0.00	0.0000	38.59	0.0000

43% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1288
Ann Rate [g/s]: 0.0677

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	11.46	1.55	0.66	0.0012	958.09	0.0000
30	25.06	3.39	1.44	0.0027	1290.22	0.0000
40	20.77	2.81	1.20	0.0022	1240.56	0.0000
50	19.28	2.61	1.11	0.0020	1734.69	0.0000
60	15.76	2.13	0.91	0.0017	1546.97	0.0000
80	9.15	1.24	0.53	0.0010	1057.88	0.0000
100	5.97	0.81	0.34	0.0006	790.98	0.0000
150	2.74	0.37	0.16	0.0003	526.98	0.0000
200	1.57	0.21	0.09	0.0002	374.12	0.0000
250	1.02	0.14	0.06	0.0001	280.03	0.0000
500	0.26	0.04	0.01	2.8E-05	105.06	0.0000
1000	0.07	0.01	0.00	7.4E-06	38.59	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	7.41	3.16	0.0296	0.0079
30	16.21	6.90	0.0647	0.0106
40	13.44	5.72	0.0536	0.0102
50	12.47	5.31	0.0498	0.0143
60	10.20	4.34	0.0407	0.0127
80	5.92	2.52	0.0236	0.0087
100	3.86	1.64	0.0154	0.0065
150	1.77	0.75	0.0071	0.0043
200	1.02	0.43	0.0041	0.0031
250	0.66	0.28	0.0026	0.0023
500	0.17	0.07	0.0007	0.0009
1000	0.05	0.02	0.0002	0.0003

Facility G-03 - 94% Perc

Met Set: Default -0

94% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.2815

Ann Rate [g/s]: 0.1481

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	64.92	27.64	0.3144	2744.96	0.0386
30	64.57	56.42	24.02	0.2732	2385.45	0.0336
40	56.52	49.39	21.02	0.2392	2088.05	0.0294
50	49.84	43.55	18.54	0.2109	1841.40	0.0259
60	44.27	38.69	16.47	0.1873	1635.59	0.0230
80	35.62	31.13	13.25	0.1507	1315.96	0.0185
100	29.32	25.62	10.90	0.1241	1083.10	0.0152
150	19.45	17.00	7.24	0.0823	718.69	0.0101
200	13.97	12.21	5.20	0.0591	516.25	0.0073
250	10.61	9.27	3.94	0.0449	391.81	0.0055
500	4.18	3.66	1.56	0.0177	154.56	0.0022
1000	1.58	1.38	0.59	0.0067	58.40	0.0008

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	64.92	27.64	0.3144	0.0386
30	56.42	24.02	0.2732	0.0336
40	49.39	21.02	0.2392	0.0294
50	43.55	18.54	0.2109	0.0259
60	38.69	16.47	0.1873	0.0230
80	31.13	13.25	0.1507	0.0185
100	25.62	10.90	0.1241	0.0152
150	17.00	7.24	0.0823	0.0101
200	12.21	5.20	0.0591	0.0073
250	9.27	3.94	0.0449	0.0055
500	3.66	1.56	0.0177	0.0022
1000	1.38	0.59	0.0067	0.0008

Facility G-03 - 55% Perc, 25% MeCl

Met Set: Default -0

55% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1647
Ann Rate [g/s]: 0.0867

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	38.01	16.18	0.1841	2744.96	0.0226
30	64.57	33.03	14.06	0.1600	2385.45	0.0196
40	56.52	28.91	12.31	0.1400	2088.05	0.0172
50	49.84	25.50	10.85	0.1235	1841.40	0.0152
60	44.27	22.65	9.64	0.1097	1635.59	0.0135
80	35.62	18.22	7.76	0.0882	1315.96	0.0108
100	29.32	15.00	6.38	0.0726	1083.10	0.0089
150	19.45	9.95	4.24	0.0482	718.69	0.0059
200	13.97	7.15	3.04	0.0346	516.25	0.0043
250	10.61	5.43	2.31	0.0263	391.81	0.0032
500	4.18	2.14	0.91	0.0104	154.56	0.0013
1000	1.58	0.81	0.34	0.0039	58.40	0.0005

25% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0749
Ann Rate [g/s]: 0.0394

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	2.93	1.25	0.0010	2744.96	0.0147
30	64.57	2.54	1.08	0.0008	2385.45	0.0128
40	56.52	2.23	0.95	0.0007	2088.05	0.0112
50	49.84	1.96	0.84	0.0007	1841.40	0.0099
60	44.27	1.74	0.74	0.0006	1635.59	0.0088
80	35.62	1.40	0.60	0.0005	1315.96	0.0070
100	29.32	1.16	0.49	0.0004	1083.10	0.0058
150	19.45	0.77	0.33	0.0003	718.69	0.0038
200	13.97	0.55	0.23	0.0002	516.25	0.0028
250	10.61	0.42	0.18	0.0001	391.81	0.0021
500	4.18	0.16	0.07	0.0001	154.56	0.0008
1000	1.58	0.06	0.03	2.1E-05	58.40	0.0003

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	40.94	17.43	0.1850	0.0373
30	35.57	15.14	0.1608	0.0324
40	31.14	13.26	0.1408	0.0284
50	27.46	11.69	0.1241	0.0250
60	24.39	10.38	0.1103	0.0222
80	19.62	8.35	0.0887	0.0179
100	16.15	6.88	0.0730	0.0147
150	10.72	4.56	0.0484	0.0098
200	7.70	3.28	0.0348	0.0070
250	5.84	2.49	0.0264	0.0053
500	2.30	0.98	0.0104	0.0021
1000	0.87	0.37	0.0039	0.0008

Facility G-03 - 40% Perc, 30% MeCl, 20% TCE

Met Set: Default -0

40% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.1198
Ann Rate [g/s]: 0.0630

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	27.62	11.76	0.1337	2744.96	0.0164
30	64.57	24.00	10.22	0.1162	2385.45	0.0143
40	56.52	21.01	8.94	0.1017	2088.05	0.0125
50	49.84	18.53	7.89	0.0897	1841.40	0.0110
60	44.27	16.46	7.01	0.0797	1635.59	0.0098
80	35.62	13.24	5.64	0.0641	1315.96	0.0079
100	29.32	10.90	4.64	0.0528	1083.10	0.0065
150	19.45	7.23	3.08	0.0350	718.69	0.0043
200	13.97	5.19	2.21	0.0252	516.25	0.0031
250	10.61	3.94	1.68	0.0191	391.81	0.0023
500	4.18	1.56	0.66	0.0075	154.56	0.0009
1000	1.58	0.59	0.25	0.0028	58.40	0.0003

30% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0898
Ann Rate [g/s]: 0.0473

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	3.51	1.50	0.0012	2744.96	0.0176
30	64.57	3.05	1.30	0.0010	2385.45	0.0153
40	56.52	2.67	1.14	0.0009	2088.05	0.0134
50	49.84	2.36	1.00	0.0008	1841.40	0.0118
60	44.27	2.09	0.89	0.0007	1635.59	0.0105
80	35.62	1.68	0.72	0.0006	1315.96	0.0084
100	29.32	1.39	0.59	0.0005	1083.10	0.0069
150	19.45	0.92	0.39	0.0003	718.69	0.0046
200	13.97	0.66	0.28	0.0002	516.25	0.0033
250	10.61	0.50	0.21	0.0002	391.81	0.0025
500	4.18	0.20	0.08	0.0001	154.56	0.0010
1000	1.58	0.07	0.03	2.5E-05	58.40	0.0004

20% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0599
Ann Rate [g/s]: 0.0315

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	4.68	1.99	0.0037	2744.96	0.0000
30	64.57	4.07	1.73	0.0032	2385.45	0.0000
40	56.52	3.56	1.52	0.0028	2088.05	0.0000
50	49.84	3.14	1.34	0.0025	1841.40	0.0000
60	44.27	2.79	1.19	0.0022	1635.59	0.0000
80	35.62	2.24	0.96	0.0018	1315.96	0.0000
100	29.32	1.85	0.79	0.0014	1083.10	0.0000
150	19.45	1.23	0.52	0.0010	718.69	0.0000
200	13.97	0.88	0.37	0.0007	516.25	0.0000
250	10.61	0.67	0.28	0.0005	391.81	0.0000
500	4.18	0.26	0.11	0.0002	154.56	0.0000
1000	1.58	0.10	0.04	0.0001	58.40	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	35.81	15.25	0.1386	0.0340
30	31.12	13.25	0.1204	0.0296
40	27.24	11.60	0.1054	0.0259
50	24.02	10.23	0.0930	0.0228
60	21.34	9.08	0.0826	0.0203
80	17.17	7.31	0.0664	0.0163
100	14.13	6.02	0.0547	0.0134
150	9.38	3.99	0.0363	0.0089
200	6.74	2.87	0.0261	0.0064
250	5.11	2.18	0.0198	0.0049
500	2.02	0.86	0.0078	0.0019
1000	0.76	0.32	0.0029	0.0007

Facility G-03 - 55% Perc, 43% TCE

Met Set: Default -0

55% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.1647 | Ann Rate [g/s]: 0.0867

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	38.01	16.18	0.1841	2744.96	0.0226
30	64.57	33.03	14.06	0.1600	2385.45	0.0196
40	56.52	28.91	12.31	0.1400	2088.05	0.0172
50	49.84	25.50	10.85	0.1235	1841.40	0.0152
60	44.27	22.65	9.64	0.1097	1635.59	0.0135
80	35.62	18.22	7.76	0.0882	1315.96	0.0108
100	29.32	15.00	6.38	0.0726	1083.10	0.0089
150	19.45	9.95	4.24	0.0482	718.69	0.0059
200	13.97	7.15	3.04	0.0346	516.25	0.0043
250	10.61	5.43	2.31	0.0263	391.81	0.0032
500	4.18	2.14	0.91	0.0104	154.56	0.0013
1000	1.58	0.81	0.34	0.0039	58.40	0.0005

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

43% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.1288 | Ann Rate [g/s]: 0.0677

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	10.06	4.28	0.0079	2744.96	0.0000
30	64.57	8.74	3.72	0.0068	2385.45	0.0000
40	56.52	7.65	3.26	0.0060	2088.05	0.0000
50	49.84	6.75	2.87	0.0053	1841.40	0.0000
60	44.27	5.99	2.55	0.0047	1635.59	0.0000
80	35.62	4.82	2.05	0.0038	1315.96	0.0000
100	29.32	3.97	1.69	0.0031	1083.10	0.0000
150	19.45	2.63	1.12	0.0021	718.69	0.0000
200	13.97	1.89	0.81	0.0015	516.25	0.0000
250	10.61	1.44	0.61	0.0011	391.81	0.0000
500	4.18	0.57	0.24	0.0004	154.56	0.0000
1000	1.58	0.21	0.09	0.0002	58.40	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	48.07	20.46	0.1919	0.0226
30	41.77	17.78	0.1668	0.0196
40	36.56	15.56	0.1460	0.0172
50	32.25	13.73	0.1287	0.0152
60	28.64	12.19	0.1144	0.0135
80	23.04	9.81	0.0920	0.0108
100	18.97	8.07	0.0757	0.0089
150	12.59	5.36	0.0502	0.0059
200	9.04	3.85	0.0361	0.0043
250	6.86	2.92	0.0274	0.0032
500	2.71	1.15	0.0108	0.0013
1000	1.02	0.44	0.0041	0.0005

Risk Assessment Summary - 3 Generic Facilities

Multicomponent Impacts - Carburetor Cleaners - Average of 10 Met Sets

Facility G-01 - 68% Perc

Met Set: Averaged

68% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0347

Ann Rate [g/s]: 0.0041

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	3.09	1.31	0.0149	10938.41	0.0190
30	67.72	1.64	0.70	0.0079	8158.81	0.0142
40	41.93	1.01	0.43	0.0049	6322.28	0.0110
50	28.51	0.69	0.29	0.0033	5024.56	0.0087
60	20.66	0.50	0.21	0.0024	4082.78	0.0071
80	12.27	0.30	0.13	0.0014	2846.71	0.0049
100	8.12	0.20	0.08	0.0010	2100.30	0.0036
150	3.78	0.09	0.04	0.0004	1171.11	0.0020
200	2.18	0.05	0.02	0.0003	763.65	0.0013
250	1.42	0.03	0.01	0.0002	545.14	0.0009
500	0.37	0.01	0.00	4.3E-05	192.37	0.0003
1000	0.10	0.00	0.00	1.1E-05	72.27	0.0001

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	3.09	1.31	0.0149	0.0190
30	1.64	0.70	0.0079	0.0142
40	1.01	0.43	0.0049	0.0110
50	0.69	0.29	0.0033	0.0087
60	0.50	0.21	0.0024	0.0071
80	0.30	0.13	0.0014	0.0049
100	0.20	0.08	0.0010	0.0036
150	0.09	0.04	0.0004	0.0020
200	0.05	0.02	0.0003	0.0013
250	0.03	0.01	0.0002	0.0009
500	0.01	0.00	4.3E-05	0.0003
1000	0.00	0.00	1.1E-05	0.0001

Facility G-01 - 57% MeCl

Met Set: Averaged

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

57% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0314 | Ann Rate [g/s]: 0.0037

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	0.47	0.20	0.0002	10938.41	0.0245
30	67.72	0.25	0.11	0.0001	8158.81	0.0183
40	41.93	0.16	0.07	0.0001	6322.28	0.0142
50	28.51	0.11	0.04	3.5E-05	5024.56	0.0113
60	20.66	0.08	0.03	2.5E-05	4082.78	0.0092
80	12.27	0.05	0.02	1.5E-05	2846.71	0.0064
100	8.12	0.03	0.01	1.0E-05	2100.30	0.0047
150	3.78	0.01	0.01	4.7E-06	1171.11	0.0026
200	2.18	0.01	0.00	2.7E-06	763.65	0.0017
250	1.42	0.01	0.00	1.7E-06	545.14	0.0012
500	0.37	0.00	0.00	4.5E-07	192.37	0.0004
1000	0.10	0.00	0.00	1.2E-07	72.27	0.0002

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	0.47	0.20	0.0002	0.0245
30	0.25	0.11	0.0001	0.0183
40	0.16	0.07	0.0001	0.0142
50	0.11	0.04	3.5E-05	0.0113
60	0.08	0.03	2.5E-05	0.0092
80	0.05	0.02	1.5E-05	0.0064
100	0.03	0.01	1.0E-05	0.0047
150	0.01	0.01	4.7E-06	0.0026
200	0.01	0.00	2.7E-06	0.0017
250	0.01	0.00	1.7E-06	0.0012
500	0.00	0.00	4.5E-07	0.0004
1000	0.00	0.00	1.2E-07	0.0002

Averaged Multicomponent Health Impacts from Carburetor Cleaners for Facility G-01

Weightings:	1	68% Perc	10.4%
	2	57% MeCl	89.6%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.74	0.32	0.0017	0.0240
30	0.39	0.17	0.0009	0.0179
40	0.24	0.10	0.0006	0.0138
50	0.17	0.07	0.0004	0.0110
60	0.12	0.05	0.0003	0.0089
80	0.07	0.03	0.0002	0.0062
100	0.05	0.02	0.0001	0.0046
150	0.02	0.01	0.0001	0.0026
200	0.01	0.01	2.9E-05	0.0017
250	0.01	0.00	1.9E-05	0.0012
500	0.00	0.00	4.9E-06	0.0004
1000	0.00	0.00	1.3E-06	0.0002

Facility G-02 - 68% Perc

Met Set: Averaged

68% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0347

Ann Rate [g/s]: 0.0041

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	1.79	0.76	0.0087	4985.68	0.0087
30	56.37	1.36	0.58	0.0066	4251.05	0.0074
40	36.41	0.88	0.37	0.0043	3540.67	0.0061
50	25.36	0.61	0.26	0.0030	3001.30	0.0052
60	18.66	0.45	0.19	0.0022	2575.36	0.0045
80	11.32	0.27	0.12	0.0013	1951.11	0.0034
100	7.60	0.18	0.08	0.0009	1532.53	0.0027
150	3.61	0.09	0.04	0.0004	943.04	0.0016
200	2.11	0.05	0.02	0.0002	647.01	0.0011
250	1.38	0.03	0.01	0.0002	477.16	0.0008
500	0.36	0.01	0.00	4.3E-05	180.51	0.0003
1000	0.10	0.00	0.00	1.1E-05	70.25	0.0001

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	1.79	0.76	0.0087	0.0087
30	1.36	0.58	0.0066	0.0074
40	0.88	0.37	0.0043	0.0061
50	0.61	0.26	0.0030	0.0052
60	0.45	0.19	0.0022	0.0045
80	0.27	0.12	0.0013	0.0034
100	0.18	0.08	0.0009	0.0027
150	0.09	0.04	0.0004	0.0016
200	0.05	0.02	0.0002	0.0011
250	0.03	0.01	0.0002	0.0008
500	0.01	0.00	4.3E-05	0.0003
1000	0.00	0.00	1.1E-05	0.0001

Facility G-02 - 57% MeCl

Met Set: Averaged

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

57% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0314 | Ann Rate [g/s]: 0.0037

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.27	0.12	0.0001	4985.68	0.0112
30	56.37	0.21	0.09	0.0001	4251.05	0.0095
40	36.41	0.13	0.06	4.5E-05	3540.67	0.0079
50	25.36	0.09	0.04	3.1E-05	3001.30	0.0067
60	18.66	0.07	0.03	2.3E-05	2575.36	0.0058
80	11.32	0.04	0.02	1.4E-05	1951.11	0.0044
100	7.60	0.03	0.01	9.4E-06	1532.53	0.0034
150	3.61	0.01	0.01	4.5E-06	943.04	0.0021
200	2.11	0.01	0.00	2.6E-06	647.01	0.0015
250	1.38	0.01	0.00	1.7E-06	477.16	0.0011
500	0.36	0.00	0.00	4.5E-07	180.51	0.0004
1000	0.10	0.00	0.00	1.2E-07	70.25	0.0002

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.27	0.12	0.0001	0.0112
30	0.21	0.09	0.0001	0.0095
40	0.13	0.06	4.5E-05	0.0079
50	0.09	0.04	3.1E-05	0.0067
60	0.07	0.03	2.3E-05	0.0058
80	0.04	0.02	1.4E-05	0.0044
100	0.03	0.01	9.4E-06	0.0034
150	0.01	0.01	4.5E-06	0.0021
200	0.01	0.00	2.6E-06	0.0015
250	0.01	0.00	1.7E-06	0.0011
500	0.00	0.00	4.5E-07	0.0004
1000	0.00	0.00	1.2E-07	0.0002

Averaged Multicomponent Health Impacts from Carburetor Cleaners for Facility G-02

Weightings:	1	68% Perc	10.4%
	2	57% MeCl	89.6%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.43	0.18	0.0010	0.0109
30	0.33	0.14	0.0007	0.0093
40	0.21	0.09	0.0005	0.0078
50	0.15	0.06	0.0003	0.0066
60	0.11	0.05	0.0002	0.0056
80	0.07	0.03	0.0002	0.0043
100	0.04	0.02	0.0001	0.0034
150	0.02	0.01	4.8E-05	0.0021
200	0.01	0.01	2.8E-05	0.0014
250	0.01	0.00	1.8E-05	0.0010
500	0.00	0.00	4.8E-06	0.0004
1000	0.00	0.00	1.3E-06	0.0002

Facility G-03 - 68% Perc

Met Set: Averaged

68% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0347

Ann Rate [g/s]: 0.0041

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.40	0.17	0.0020	1231.74	0.0021
30	33.45	0.81	0.34	0.0039	1650.82	0.0029
40	27.02	0.65	0.28	0.0032	1484.02	0.0026
50	25.03	0.61	0.26	0.0029	2079.26	0.0036
60	20.90	0.51	0.22	0.0024	1915.91	0.0033
80	12.23	0.30	0.13	0.0014	1479.75	0.0026
100	8.02	0.19	0.08	0.0009	1184.75	0.0021
150	3.71	0.09	0.04	0.0004	769.33	0.0013
200	2.14	0.05	0.02	0.0003	550.34	0.0010
250	1.39	0.03	0.01	0.0002	417.99	0.0007
500	0.36	0.01	0.00	4.3E-05	169.20	0.0003
1000	0.10	0.00	0.00	1.1E-05	68.13	0.0001

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.40	0.17	0.0020	0.0021
30	0.81	0.34	0.0039	0.0029
40	0.65	0.28	0.0032	0.0026
50	0.61	0.26	0.0029	0.0036
60	0.51	0.22	0.0024	0.0033
80	0.30	0.13	0.0014	0.0026
100	0.19	0.08	0.0009	0.0021
150	0.09	0.04	0.0004	0.0013
200	0.05	0.02	0.0003	0.0010
250	0.03	0.01	0.0002	0.0007
500	0.01	0.00	4.3E-05	0.0003
1000	0.00	0.00	1.1E-05	0.0001

Facility G-03 - 57% MeCl

Met Set: Averaged

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

57% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0314 | Ann Rate [g/s]: 0.0037

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.06	0.03	2.1E-05	1231.74	0.0028
30	33.45	0.12	0.05	4.1E-05	1650.82	0.0037
40	27.02	0.10	0.04	3.3E-05	1484.02	0.0033
50	25.03	0.09	0.04	3.1E-05	2079.26	0.0047
60	20.90	0.08	0.03	2.6E-05	1915.91	0.0043
80	12.23	0.05	0.02	1.5E-05	1479.75	0.0033
100	8.02	0.03	0.01	9.9E-06	1184.75	0.0027
150	3.71	0.01	0.01	4.6E-06	769.33	0.0017
200	2.14	0.01	0.00	2.6E-06	550.34	0.0012
250	1.39	0.01	0.00	1.7E-06	417.99	0.0009
500	0.36	0.00	0.00	4.5E-07	169.20	0.0004
1000	0.10	0.00	0.00	1.2E-07	68.13	0.0002

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.06	0.03	2.1E-05	0.0028
30	0.12	0.05	4.1E-05	0.0037
40	0.10	0.04	3.3E-05	0.0033
50	0.09	0.04	3.1E-05	0.0047
60	0.08	0.03	2.6E-05	0.0043
80	0.05	0.02	1.5E-05	0.0033
100	0.03	0.01	9.9E-06	0.0027
150	0.01	0.01	4.6E-06	0.0017
200	0.01	0.00	2.6E-06	0.0012
250	0.01	0.00	1.7E-06	0.0009
500	0.00	0.00	4.5E-07	0.0004
1000	0.00	0.00	1.2E-07	0.0002

Averaged Multicomponent Health Impacts from Carburetor Cleaners for Facility G-03

Weightings:			
	1	68% Perc	10.4%
	2	57% MeCl	89.6%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.10	0.04	0.0002	0.0027
30	0.20	0.08	0.0004	0.0036
40	0.16	0.07	0.0004	0.0033
50	0.15	0.06	0.0003	0.0046
60	0.12	0.05	0.0003	0.0042
80	0.07	0.03	0.0002	0.0032
100	0.05	0.02	0.0001	0.0026
150	0.02	0.01	4.9E-05	0.0017
200	0.01	0.01	2.8E-05	0.0012
250	0.01	0.00	1.9E-05	0.0009
500	0.00	0.00	4.8E-06	0.0004
1000	0.00	0.00	1.3E-06	0.0001

Risk Assessment Summary - 3 Generic Facilities
Multicomponent Impacts - Carburetor Cleaners - Default Met

Facility G-01 - 68% Perc

Met Set: Default-0

68% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0347
Ann Rate [g/s]: 0.0041

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	7.43	3.16	0.0360	11342.73	0.0197
30	229.98	5.56	2.37	0.0269	8496.33	0.0147
40	178.09	4.31	1.83	0.0209	6579.11	0.0114
50	141.80	3.43	1.46	0.0166	5238.72	0.0091
60	115.56	2.80	1.19	0.0135	4269.33	0.0074
80	81.09	1.96	0.84	0.0095	2995.85	0.0052
100	60.18	1.46	0.62	0.0070	2223.11	0.0039
150	33.55	0.81	0.35	0.0039	1239.31	0.0022
200	21.63	0.52	0.22	0.0025	799.09	0.0014
250	15.25	0.37	0.16	0.0018	563.57	0.0010
500	5.08	0.12	0.05	0.0006	187.51	0.0003
1000	1.74	0.04	0.02	0.0002	64.26	0.0001

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	7.43	3.16	0.0360	0.0197
30	5.56	2.37	0.0269	0.0147
40	4.31	1.83	0.0209	0.0114
50	3.43	1.46	0.0166	0.0091
60	2.80	1.19	0.0135	0.0074
80	1.96	0.84	0.0095	0.0052
100	1.46	0.62	0.0070	0.0039
150	0.81	0.35	0.0039	0.0022
200	0.52	0.22	0.0025	0.0014
250	0.37	0.16	0.0018	0.0010
500	0.12	0.05	0.0006	0.0003
1000	0.04	0.02	0.0002	0.0001

Facility G-01 - 57% MeCl

Met Set: Default-0

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

57% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0314 | Ann Rate [g/s]: 0.0037

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	1.14	0.48	0.0004	11342.73	0.0254
30	229.98	0.85	0.36	0.0003	8496.33	0.0191
40	178.09	0.66	0.28	0.0002	6579.11	0.0148
50	141.80	0.52	0.22	0.0002	5238.72	0.0117
60	115.56	0.43	0.18	0.0001	4269.33	0.0096
80	81.09	0.30	0.13	0.0001	2995.85	0.0067
100	60.18	0.22	0.09	0.0001	2223.11	0.0050
150	33.55	0.12	0.05	4.1E-05	1239.31	0.0028
200	21.63	0.08	0.03	2.7E-05	799.09	0.0018
250	15.25	0.06	0.02	1.9E-05	563.57	0.0013
500	5.08	0.02	0.01	6.3E-06	187.51	0.0004
1000	1.74	0.01	0.00	2.1E-06	64.26	0.0001

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	1.14	0.48	0.0004	0.0254
30	0.85	0.36	0.0003	0.0191
40	0.66	0.28	0.0002	0.0148
50	0.52	0.22	0.0002	0.0117
60	0.43	0.18	0.0001	0.0096
80	0.30	0.13	0.0001	0.0067
100	0.22	0.09	0.0001	0.0050
150	0.12	0.05	4.1E-05	0.0028
200	0.08	0.03	2.7E-05	0.0018
250	0.06	0.02	1.9E-05	0.0013
500	0.02	0.01	6.3E-06	0.0004
1000	0.01	0.00	2.1E-06	0.0001

Averaged Multicomponent Health Impacts from Carburetor Cleaners for Facility G-01

Weightings:	1	68% Perc	10.4%
	2	57% MeCl	89.6%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	1.79	0.76	0.0041	0.0248
30	1.34	0.57	0.0031	0.0186
40	1.04	0.44	0.0024	0.0144
50	0.83	0.35	0.0019	0.0115
60	0.67	0.29	0.0015	0.0094
80	0.47	0.20	0.0011	0.0066
100	0.35	0.15	0.0008	0.0049
150	0.20	0.08	0.0004	0.0027
200	0.13	0.05	0.0003	0.0018
250	0.09	0.04	0.0002	0.0012
500	0.03	0.01	0.0001	0.0004
1000	0.01	0.00	2.3E-05	0.0001

Facility G-02 - 68% Perc

Met Set: Default-0

68% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0347

Ann Rate [g/s]: 0.0041

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	3.45	1.47	0.0167	5276.51	0.0092
30	117.98	2.85	1.21	0.0138	4358.64	0.0076
40	98.78	2.39	1.02	0.0116	3649.09	0.0063
50	83.77	2.03	0.86	0.0098	3094.79	0.0054
60	71.89	1.74	0.74	0.0084	2656.01	0.0046
80	54.62	1.32	0.56	0.0064	2017.7	0.0035
100	42.94	1.04	0.44	0.0050	1586.22	0.0028
150	26.25	0.63	0.27	0.0031	969.72	0.0017
200	17.86	0.43	0.18	0.0021	659.99	0.0011
250	13.05	0.32	0.13	0.0015	482.19	0.0008
500	4.69	0.11	0.05	0.0005	173.33	0.0003
1000	1.68	0.04	0.02	0.0002	61.9	0.0001

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	3.45	1.47	0.0167	0.0092
30	2.85	1.21	0.0138	0.0076
40	2.39	1.02	0.0116	0.0063
50	2.03	0.86	0.0098	0.0054
60	1.74	0.74	0.0084	0.0046
80	1.32	0.56	0.0064	0.0035
100	1.04	0.44	0.0050	0.0028
150	0.63	0.27	0.0031	0.0017
200	0.43	0.18	0.0021	0.0011
250	0.32	0.13	0.0015	0.0008
500	0.11	0.05	0.0005	0.0003
1000	0.04	0.02	0.0002	0.0001

Facility G-02 - 57% MeCl

Met Set: Default-0

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

57% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0314 | Ann Rate [g/s]: 0.0037

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.53	0.22	0.0002	5276.51	0.0118
30	117.98	0.44	0.19	0.0001	4358.64	0.0098
40	98.78	0.37	0.16	0.0001	3649.09	0.0082
50	83.77	0.31	0.13	0.0001	3094.79	0.0069
60	71.89	0.27	0.11	0.0001	2656.01	0.0060
80	54.62	0.20	0.09	0.0001	2017.70	0.0045
100	42.94	0.16	0.07	0.0001	1586.22	0.0036
150	26.25	0.10	0.04	3.2E-05	969.72	0.0022
200	17.86	0.07	0.03	2.2E-05	659.99	0.0015
250	13.05	0.05	0.02	1.6E-05	482.19	0.0011
500	4.69	0.02	0.01	5.8E-06	173.33	0.0004
1000	1.68	0.01	0.00	2.1E-06	61.90	0.0001

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	0.53	0.22	0.0002	0.0118
30	0.44	0.19	0.0001	0.0098
40	0.37	0.16	0.0001	0.0082
50	0.31	0.13	0.0001	0.0069
60	0.27	0.11	0.0001	0.0060
80	0.20	0.09	0.0001	0.0045
100	0.16	0.07	0.0001	0.0036
150	0.10	0.04	3.2E-05	0.0022
200	0.07	0.03	2.2E-05	0.0015
250	0.05	0.02	1.6E-05	0.0011
500	0.02	0.01	5.8E-06	0.0004
1000	0.01	0.00	2.1E-06	0.0001

Averaged Multicomponent Health Impacts from Carburetor Cleaners for Facility G-02

Weightings:	1	68% Perc	10.4%
	2	57% MeCl	89.6%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	0.83	0.35	0.0019	0.0116
30	0.69	0.29	0.0016	0.0095
40	0.58	0.25	0.0013	0.0080
50	0.49	0.21	0.0011	0.0068
60	0.42	0.18	0.0010	0.0058
80	0.32	0.14	0.0007	0.0044
100	0.25	0.11	0.0006	0.0035
150	0.15	0.07	0.0003	0.0021
200	0.10	0.04	0.0002	0.0014
250	0.08	0.03	0.0002	0.0011
500	0.03	0.01	0.0001	0.0004
1000	0.01	0.00	2.2E-05	0.0001

Facility G-03 - 68% Perc

Met Set: Default-0

68% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0347

Ann Rate [g/s]: 0.0041

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	1.80	0.77	0.0087	2744.96	0.0048
30	64.57	1.56	0.66	0.0076	2385.45	0.0041
40	56.52	1.37	0.58	0.0066	2088.05	0.0036
50	49.84	1.21	0.51	0.0058	1841.4	0.0032
60	44.27	1.07	0.46	0.0052	1635.59	0.0028
80	35.62	0.86	0.37	0.0042	1315.96	0.0023
100	29.32	0.71	0.30	0.0034	1083.1	0.0019
150	19.45	0.47	0.20	0.0023	718.69	0.0012
200	13.97	0.34	0.14	0.0016	516.25	0.0009
250	10.61	0.26	0.11	0.0012	391.81	0.0007
500	4.18	0.10	0.04	0.0005	154.56	0.0003
1000	1.58	0.04	0.02	0.0002	58.4	0.0001

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	1.80	0.77	0.0087	0.0048
30	1.56	0.66	0.0076	0.0041
40	1.37	0.58	0.0066	0.0036
50	1.21	0.51	0.0058	0.0032
60	1.07	0.46	0.0052	0.0028
80	0.86	0.37	0.0042	0.0023
100	0.71	0.30	0.0034	0.0019
150	0.47	0.20	0.0023	0.0012
200	0.34	0.14	0.0016	0.0009
250	0.26	0.11	0.0012	0.0007
500	0.10	0.04	0.0005	0.0003
1000	0.04	0.02	0.0002	0.0001

Facility G-03 - 57% MeCl

Met Set: Default-0

0% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

57% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0314

Ann Rate [g/s]: 0.0037

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	0.27	0.12	0.0001	2744.96	0.0062
30	64.57	0.24	0.10	0.0001	2385.45	0.0054
40	56.52	0.21	0.09	0.0001	2088.05	0.0047
50	49.84	0.18	0.08	0.0001	1841.40	0.0041
60	44.27	0.16	0.07	0.0001	1635.59	0.0037
80	35.62	0.13	0.06	4.4E-05	1315.96	0.0030
100	29.32	0.11	0.05	3.6E-05	1083.10	0.0024
150	19.45	0.07	0.03	2.4E-05	718.69	0.0016
200	13.97	0.05	0.02	1.7E-05	516.25	0.0012
250	10.61	0.04	0.02	1.3E-05	391.81	0.0009
500	4.18	0.02	0.01	5.2E-06	154.56	0.0003
1000	1.58	0.01	0.00	1.9E-06	58.40	0.0001

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	0.27	0.12	0.0001	0.0062
30	0.24	0.10	0.0001	0.0054
40	0.21	0.09	0.0001	0.0047
50	0.18	0.08	0.0001	0.0041
60	0.16	0.07	0.0001	0.0037
80	0.13	0.06	4.4E-05	0.0030
100	0.11	0.05	3.6E-05	0.0024
150	0.07	0.03	2.4E-05	0.0016
200	0.05	0.02	1.7E-05	0.0012
250	0.04	0.02	1.3E-05	0.0009
500	0.02	0.01	5.2E-06	0.0003
1000	0.01	0.00	1.9E-06	0.0001

Averaged Multicomponent Health Impacts from Carburetor Cleaners for Facility G-03

Weightings:	1	68% Perc	10.4%
	2	57% MeCl	89.6%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	0.43	0.18	0.0010	0.0060
30	0.38	0.16	0.0009	0.0052
40	0.33	0.14	0.0008	0.0046
50	0.29	0.12	0.0007	0.0040
60	0.26	0.11	0.0006	0.0036
80	0.21	0.09	0.0005	0.0029
100	0.17	0.07	0.0004	0.0024
150	0.11	0.05	0.0003	0.0016
200	0.08	0.03	0.0002	0.0011
250	0.06	0.03	0.0001	0.0009
500	0.02	0.01	0.0001	0.0003
1000	0.01	0.00	2.1E-05	0.0001

Risk Assessment Summary - 3 Generic Facilities

Multicomponent Impacts - Engine Degreasers - Average of 10 Met Sets

Facility G-01 - 47% Perc

Met Set: Averaged

47%

op hrs/wk: 57

Acu Rate [g/s]: 0.0708

Ann Rate [g/s]: 0.0035

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	2.63	1.12	0.0128	10938.41	0.0387
30	67.72	1.40	0.60	0.0068	8158.81	0.0289
40	41.93	0.87	0.37	0.0042	6322.28	0.0224
50	28.51	0.59	0.25	0.0029	5024.56	0.0178
60	20.66	0.43	0.18	0.0021	4082.78	0.0145
80	12.27	0.25	0.11	0.0012	2846.71	0.0101
100	8.12	0.17	0.07	0.0008	2100.30	0.0074
150	3.78	0.08	0.03	0.0004	1171.11	0.0041
200	2.18	0.05	0.02	0.0002	763.65	0.0027
250	1.42	0.03	0.01	0.0001	545.14	0.0019
500	0.37	0.01	0.00	3.7E-05	192.37	0.0007
1000	0.10	0.00	0.00	9.6E-06	72.27	0.0003

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	2.63	1.12	0.0128	0.0387
30	1.40	0.60	0.0068	0.0289
40	0.87	0.37	0.0042	0.0224
50	0.59	0.25	0.0029	0.0178
60	0.43	0.18	0.0021	0.0145
80	0.25	0.11	0.0012	0.0101
100	0.17	0.07	0.0008	0.0074
150	0.08	0.03	0.0004	0.0041
200	0.05	0.02	0.0002	0.0027
250	0.03	0.01	0.0001	0.0019
500	0.01	0.00	3.7E-05	0.0007
1000	0.00	0.00	9.6E-06	0.0003

Facility G-01 - 99% TCE

Met Set: Averaged

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

99% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.1492 | Ann Rate [g/s]: 0.0074

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	1.89	0.80	0.0015	10938.41	0.0000
30	67.72	1.00	0.43	0.0008	8158.81	0.0000
40	41.93	0.62	0.26	0.0005	6322.28	0.0000
50	28.51	0.42	0.18	0.0003	5024.56	0.0000
60	20.66	0.31	0.13	0.0002	4082.78	0.0000
80	12.27	0.18	0.08	0.0001	2846.71	0.0000
100	8.12	0.12	0.05	0.0001	2100.30	0.0000
150	3.78	0.06	0.02	4.4E-05	1171.11	0.0000
200	2.18	0.03	0.01	2.5E-05	763.65	0.0000
250	1.42	0.02	0.01	1.6E-05	545.14	0.0000
500	0.37	0.01	0.00	4.3E-06	192.37	0.0000
1000	0.10	0.00	0.00	1.1E-06	72.27	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	1.89	0.80	0.0015	0.0000
30	1.00	0.43	0.0008	0.0000
40	0.62	0.26	0.0005	0.0000
50	0.42	0.18	0.0003	0.0000
60	0.31	0.13	0.0002	0.0000
80	0.18	0.08	0.0001	0.0000
100	0.12	0.05	0.0001	0.0000
150	0.06	0.02	4.4E-05	0.0000
200	0.03	0.01	2.5E-05	0.0000
250	0.02	0.01	1.6E-05	0.0000
500	0.01	0.00	4.3E-06	0.0000
1000	0.00	0.00	1.1E-06	0.0000

Averaged Multicomponent Health Impacts from Engine Degreasers for Facility G-01

Weightings:	1 47% Perc	41.0%
	2 99% TCE	59.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	2.19	0.93	0.0061	0.0159
30	1.16	0.50	0.0032	0.0118
40	0.72	0.31	0.0020	0.0092
50	0.49	0.21	0.0014	0.0073
60	0.36	0.15	0.0010	0.0059
80	0.21	0.09	0.0006	0.0041
100	0.14	0.06	0.0004	0.0030
150	0.07	0.03	0.0002	0.0017
200	0.04	0.02	0.0001	0.0011
250	0.02	0.01	0.0001	0.0008
500	0.01	0.00	1.8E-05	0.0003
1000	0.00	0.00	4.6E-06	1.0E-04

Facility G-02 - 47% Perc

Met Set: Averaged

47% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0708

Ann Rate [g/s]: 0.0035

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	1.53	0.65	0.0074	4985.68	0.0176
30	56.37	1.16	0.50	0.0056	4251.05	0.0150
40	36.41	0.75	0.32	0.0036	3540.67	0.0125
50	25.36	0.52	0.22	0.0025	3001.30	0.0106
60	18.66	0.39	0.16	0.0019	2575.36	0.0091
80	11.32	0.23	0.10	0.0011	1951.11	0.0069
100	7.60	0.16	0.07	0.0008	1532.53	0.0054
150	3.61	0.07	0.03	0.0004	943.04	0.0033
200	2.11	0.04	0.02	0.0002	647.01	0.0023
250	1.38	0.03	0.01	0.0001	477.16	0.0017
500	0.36	0.01	0.00	3.6E-05	180.51	0.0006
1000	0.10	0.00	0.00	9.6E-06	70.25	0.0002

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	1.53	0.65	0.0074	0.0176
30	1.16	0.50	0.0056	0.0150
40	0.75	0.32	0.0036	0.0125
50	0.52	0.22	0.0025	0.0106
60	0.39	0.16	0.0019	0.0091
80	0.23	0.10	0.0011	0.0069
100	0.16	0.07	0.0008	0.0054
150	0.07	0.03	0.0004	0.0033
200	0.04	0.02	0.0002	0.0023
250	0.03	0.01	0.0001	0.0017
500	0.01	0.00	3.6E-05	0.0006
1000	0.00	0.00	9.6E-06	0.0002

Facility G-02 - 99% TCE

Met Set: Averaged

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

99% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.1492 | Ann Rate [g/s]: 0.0074

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	1.10	0.47	0.0009	4985.68	0.0000
30	56.37	0.83	0.36	0.0007	4251.05	0.0000
40	36.41	0.54	0.23	0.0004	3540.67	0.0000
50	25.36	0.38	0.16	0.0003	3001.30	0.0000
60	18.66	0.28	0.12	0.0002	2575.36	0.0000
80	11.32	0.17	0.07	0.0001	1951.11	0.0000
100	7.60	0.11	0.05	0.0001	1532.53	0.0000
150	3.61	0.05	0.02	4.2E-05	943.04	0.0000
200	2.11	0.03	0.01	2.4E-05	647.01	0.0000
250	1.38	0.02	0.01	1.6E-05	477.16	0.0000
500	0.36	0.01	0.00	4.2E-06	180.51	0.0000
1000	0.10	0.00	0.00	1.1E-06	70.25	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	1.10	0.47	0.0009	0.0000
30	0.83	0.36	0.0007	0.0000
40	0.54	0.23	0.0004	0.0000
50	0.38	0.16	0.0003	0.0000
60	0.28	0.12	0.0002	0.0000
80	0.17	0.07	0.0001	0.0000
100	0.11	0.05	0.0001	0.0000
150	0.05	0.02	4.2E-05	0.0000
200	0.03	0.01	2.4E-05	0.0000
250	0.02	0.01	1.6E-05	0.0000
500	0.01	0.00	4.2E-06	0.0000
1000	0.00	0.00	1.1E-06	0.0000

Averaged Multicomponent Health Impacts from Engine Degreasers for Facility G-02

Weightings:	1	24% Perc	41.0%
	2	99% TCE	59.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	1.28	0.54	0.0035	0.0072
30	0.97	0.41	0.0027	0.0062
40	0.63	0.27	0.0017	0.0051
50	0.44	0.19	0.0012	0.0044
60	0.32	0.14	0.0009	0.0037
80	0.19	0.08	0.0005	0.0028
100	0.13	0.06	0.0004	0.0022
150	0.06	0.03	0.0002	0.0014
200	0.04	0.02	0.0001	0.0009
250	0.02	0.01	0.0001	0.0007
500	0.01	0.00	1.7E-05	0.0003
1000	0.00	0.00	4.6E-06	1.0E-04

Facility G-03 - 47% Perc

Met Set: Averaged

47% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.0708 | Ann Rate [g/s]: 0.0035

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	16.68	0.34	0.15	0.0017	1231.74	0.0044
30	33.45	0.69	0.29	0.0033	1650.82	0.0058
40	27.02	0.56	0.24	0.0027	1484.02	0.0053
50	25.03	0.52	0.22	0.0025	2079.26	0.0074
60	20.90	0.43	0.18	0.0021	1915.91	0.0068
80	12.23	0.25	0.11	0.0012	1479.75	0.0052
100	8.02	0.17	0.07	0.0008	1184.75	0.0042
150	3.71	0.08	0.03	0.0004	769.33	0.0027
200	2.14	0.04	0.02	0.0002	550.34	0.0019
250	1.39	0.03	0.01	0.0001	417.99	0.0015
500	0.36	0.01	0.00	3.6E-05	169.20	0.0006
1000	0.10	0.00	0.00	9.6E-06	68.13	0.0002

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	0.34	0.15	0.0017	0.0044
30	0.69	0.29	0.0033	0.0058
40	0.56	0.24	0.0027	0.0053
50	0.52	0.22	0.0025	0.0074
60	0.43	0.18	0.0021	0.0068
80	0.25	0.11	0.0012	0.0052
100	0.17	0.07	0.0008	0.0042
150	0.08	0.03	0.0004	0.0027
200	0.04	0.02	0.0002	0.0019
250	0.03	0.01	0.0001	0.0015
500	0.01	0.00	3.6E-05	0.0006
1000	0.00	0.00	9.6E-06	0.0002

Facility G-03 - 99% TCE

Met Set: Averaged

0% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

99% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.1492

Ann Rate [g/s]: 0.0074

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.25	0.11	0.0002	1231.74	0.0000
30	33.45	0.50	0.21	0.0004	1650.82	0.0000
40	27.02	0.40	0.17	0.0003	1484.02	0.0000
50	25.03	0.37	0.16	0.0003	2079.26	0.0000
60	20.90	0.31	0.13	0.0002	1915.91	0.0000
80	12.23	0.18	0.08	0.0001	1479.75	0.0000
100	8.02	0.12	0.05	0.0001	1184.75	0.0000
150	3.71	0.05	0.02	4.3E-05	769.33	0.0000
200	2.14	0.03	0.01	2.5E-05	550.34	0.0000
250	1.39	0.02	0.01	1.6E-05	417.99	0.0000
500	0.36	0.01	0.00	4.2E-06	169.20	0.0000
1000	0.10	0.00	0.00	1.1E-06	68.13	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.25	0.11	0.0002	0.0000
30	0.50	0.21	0.0004	0.0000
40	0.40	0.17	0.0003	0.0000
50	0.37	0.16	0.0003	0.0000
60	0.31	0.13	0.0002	0.0000
80	0.18	0.08	0.0001	0.0000
100	0.12	0.05	0.0001	0.0000
150	0.05	0.02	4.3E-05	0.0000
200	0.03	0.01	2.5E-05	0.0000
250	0.02	0.01	1.6E-05	0.0000
500	0.01	0.00	4.2E-06	0.0000
1000	0.00	0.00	1.1E-06	0.0000

Averaged Multicomponent Health Impacts from Engine Degreasers for Facility G-03

Weightings:	1	24% Perc	41.0%
	2	99% TCE	59.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.29	0.12	0.0008	0.0018
30	0.58	0.24	0.0016	0.0024
40	0.46	0.20	0.0013	0.0022
50	0.43	0.18	0.0012	0.0030
60	0.36	0.15	0.0010	0.0028
80	0.21	0.09	0.0006	0.0021
100	0.14	0.06	0.0004	0.0017
150	0.06	0.03	0.0002	0.0011
200	0.04	0.02	0.0001	0.0008
250	0.02	0.01	0.0001	0.0006
500	0.01	0.00	0.0000	0.0002
1000	0.00	0.00	0.0000	0.0001

Risk Assessment Summary - 3 Generic Facilities
Multicomponent Impacts - Engine Degreasers - Default Met

Facility G-01 - 47% Perc

Met Set: Default-0

47%

op hrs/wk: 57

Acu Rate [g/s]: 0.0708
Ann Rate [g/s]: 0.0035

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	6.34	2.70	0.0307	11342.73	0.0402
30	229.98	4.75	2.02	0.0230	8496.33	0.0301
40	178.09	3.68	1.57	0.0178	6579.11	0.0233
50	141.80	2.93	1.25	0.0142	5238.72	0.0185
60	115.56	2.39	1.02	0.0116	4269.33	0.0151
80	81.09	1.67	0.71	0.0081	2995.85	0.0106
100	60.18	1.24	0.53	0.0060	2223.11	0.0079
150	33.55	0.69	0.29	0.0034	1239.31	0.0044
200	21.63	0.45	0.19	0.0022	799.09	0.0028
250	15.25	0.32	0.13	0.0015	563.57	0.0020
500	5.08	0.10	0.04	0.0005	187.51	0.0007
1000	1.74	0.04	0.02	0.0002	64.26	0.0002

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	6.34	2.70	0.0307	0.0402
30	4.75	2.02	0.0230	0.0301
40	3.68	1.57	0.0178	0.0233
50	2.93	1.25	0.0142	0.0185
60	2.39	1.02	0.0116	0.0151
80	1.67	0.71	0.0081	0.0106
100	1.24	0.53	0.0060	0.0079
150	0.69	0.29	0.0034	0.0044
200	0.45	0.19	0.0022	0.0028
250	0.32	0.13	0.0015	0.0020
500	0.10	0.04	0.0005	0.0007
1000	0.04	0.02	0.0002	0.0002

Facility G-01 - 99% TCE

Met Set: Default-0

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

99% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.1492 | Ann Rate [g/s]: 0.0074

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	4.54	1.93	0.0036	11342.73	0.0000
30	229.98	3.40	1.45	0.0027	8496.33	0.0000
40	178.09	2.64	1.12	0.0021	6579.11	0.0000
50	141.80	2.10	0.89	0.0016	5238.72	0.0000
60	115.56	1.71	0.73	0.0013	4269.33	0.0000
80	81.09	1.20	0.51	0.0009	2995.85	0.0000
100	60.18	0.89	0.38	0.0007	2223.11	0.0000
150	33.55	0.50	0.21	0.0004	1239.31	0.0000
200	21.63	0.32	0.14	0.0003	799.09	0.0000
250	15.25	0.23	0.10	0.0002	563.57	0.0000
500	5.08	0.08	0.03	0.0001	187.51	0.0000
1000	1.74	0.03	0.01	2.0E-05	64.26	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	4.54	1.93	0.0036	0.0000
30	3.40	1.45	0.0027	0.0000
40	2.64	1.12	0.0021	0.0000
50	2.10	0.89	0.0016	0.0000
60	1.71	0.73	0.0013	0.0000
80	1.20	0.51	0.0009	0.0000
100	0.89	0.38	0.0007	0.0000
150	0.50	0.21	0.0004	0.0000
200	0.32	0.14	0.0003	0.0000
250	0.23	0.10	0.0002	0.0000
500	0.08	0.03	0.0001	0.0000
1000	0.03	0.01	2.0E-05	0.0000

Averaged Multicomponent Health Impacts from Engine Degreasers for Facility G-01

Weightings:	1 47% Perc	41.0%
	2 99% TCE	59.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	5.28	2.25	0.0147	0.0165
30	3.96	1.68	0.0110	0.0123
40	3.06	1.30	0.0085	0.0095
50	2.44	1.04	0.0068	0.0076
60	1.99	0.85	0.0055	0.0062
80	1.39	0.59	0.0039	0.0043
100	1.03	0.44	0.0029	0.0032
150	0.58	0.25	0.0016	0.0018
200	0.37	0.16	0.0010	0.0012
250	0.26	0.11	0.0007	0.0008
500	0.09	0.04	0.0002	0.0003
1000	0.03	0.01	0.0001	0.0001

Facility G-02 - 47% Perc

Met Set: Default-0

47% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0708

Ann Rate [g/s]: 0.0035

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	2.95	1.26	0.0143	5276.51	0.0187
30	117.98	2.44	1.04	0.0118	4358.64	0.0154
40	98.78	2.04	0.87	0.0099	3649.09	0.0129
50	83.77	1.73	0.74	0.0084	3094.79	0.0110
60	71.89	1.48	0.63	0.0072	2656.01	0.0094
80	54.62	1.13	0.48	0.0055	2017.7	0.0071
100	42.94	0.89	0.38	0.0043	1586.22	0.0056
150	26.25	0.54	0.23	0.0026	969.72	0.0034
200	17.86	0.37	0.16	0.0018	659.99	0.0023
250	13.05	0.27	0.11	0.0013	482.19	0.0017
500	4.69	0.10	0.04	0.0005	173.33	0.0006
1000	1.68	0.03	0.01	0.0002	61.9	0.0002

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	2.95	1.26	0.0143	0.0187
30	2.44	1.04	0.0118	0.0154
40	2.04	0.87	0.0099	0.0129
50	1.73	0.74	0.0084	0.0110
60	1.48	0.63	0.0072	0.0094
80	1.13	0.48	0.0055	0.0071
100	0.89	0.38	0.0043	0.0056
150	0.54	0.23	0.0026	0.0034
200	0.37	0.16	0.0018	0.0023
250	0.27	0.11	0.0013	0.0017
500	0.10	0.04	0.0005	0.0006
1000	0.03	0.01	0.0002	0.0002

Facility G-02 - 99% TCE

Met Set: Default-0

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

99% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.1492 | Ann Rate [g/s]: 0.0074

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	2.11	0.90	0.0017	5276.51	0.0000
30	117.98	1.75	0.74	0.0014	4358.64	0.0000
40	98.78	1.46	0.62	0.0011	3649.09	0.0000
50	83.77	1.24	0.53	0.0010	3094.79	0.0000
60	71.89	1.06	0.45	0.0008	2656.01	0.0000
80	54.62	0.81	0.34	0.0006	2017.70	0.0000
100	42.94	0.64	0.27	0.0005	1586.22	0.0000
150	26.25	0.39	0.17	0.0003	969.72	0.0000
200	17.86	0.26	0.11	0.0002	659.99	0.0000
250	13.05	0.19	0.08	0.0002	482.19	0.0000
500	4.69	0.07	0.03	0.0001	173.33	0.0000
1000	1.68	0.02	0.01	1.9E-05	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	2.11	0.90	0.0017	0.0000
30	1.75	0.74	0.0014	0.0000
40	1.46	0.62	0.0011	0.0000
50	1.24	0.53	0.0010	0.0000
60	1.06	0.45	0.0008	0.0000
80	0.81	0.34	0.0006	0.0000
100	0.64	0.27	0.0005	0.0000
150	0.39	0.17	0.0003	0.0000
200	0.26	0.11	0.0002	0.0000
250	0.19	0.08	0.0002	0.0000
500	0.07	0.03	0.0001	0.0000
1000	0.02	0.01	1.9E-05	0.0000

Averaged Multicomponent Health Impacts from Engine Degreasers for Facility G-02

Weightings:	1	24% Perc	41.0%
	2	99% TCE	59.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	2.46	1.05	0.0068	0.0077
30	2.03	0.86	0.0056	0.0063
40	1.70	0.72	0.0047	0.0053
50	1.44	0.61	0.0040	0.0045
60	1.24	0.53	0.0034	0.0039
80	0.94	0.40	0.0026	0.0029
100	0.74	0.31	0.0021	0.0023
150	0.45	0.19	0.0013	0.0014
200	0.31	0.13	0.0009	0.0010
250	0.22	0.10	0.0006	0.0007
500	0.08	0.03	0.0002	0.0003
1000	0.03	0.01	0.0001	0.0001

Facility G-03 - 47% Perc

Met Set: Default-0

47% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0708

Ann Rate [g/s]: 0.0035

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	1.53	0.65	0.0074	2744.96	0.0097
30	64.57	1.33	0.57	0.0065	2385.45	0.0084
40	56.52	1.17	0.50	0.0057	2088.05	0.0074
50	49.84	1.03	0.44	0.0050	1841.4	0.0065
60	44.27	0.91	0.39	0.0044	1635.59	0.0058
80	35.62	0.74	0.31	0.0036	1315.96	0.0047
100	29.32	0.61	0.26	0.0029	1083.1	0.0038
150	19.45	0.40	0.17	0.0019	718.69	0.0025
200	13.97	0.29	0.12	0.0014	516.25	0.0018
250	10.61	0.22	0.09	0.0011	391.81	0.0014
500	4.18	0.09	0.04	0.0004	154.56	0.0005
1000	1.58	0.03	0.01	0.0002	58.4	0.0002

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Envelope	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	1.53	0.65	0.0074	0.0097
30	1.33	0.57	0.0065	0.0084
40	1.17	0.50	0.0057	0.0074
50	1.03	0.44	0.0050	0.0065
60	0.91	0.39	0.0044	0.0058
80	0.74	0.31	0.0036	0.0047
100	0.61	0.26	0.0029	0.0038
150	0.40	0.17	0.0019	0.0025
200	0.29	0.12	0.0014	0.0018
250	0.22	0.09	0.0011	0.0014
500	0.09	0.04	0.0004	0.0005
1000	0.03	0.01	0.0002	0.0002

Facility G-03 - 99% TCE

Met Set: Default-0

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

99% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.1492 | Ann Rate [g/s]: 0.0074

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	1.10	0.47	0.0009	2744.96	0.0000
30	64.57	0.96	0.41	0.0007	2385.45	0.0000
40	56.52	0.84	0.36	0.0007	2088.05	0.0000
50	49.84	0.74	0.31	0.0006	1841.40	0.0000
60	44.27	0.66	0.28	0.0005	1635.59	0.0000
80	35.62	0.53	0.22	0.0004	1315.96	0.0000
100	29.32	0.43	0.18	0.0003	1083.10	0.0000
150	19.45	0.29	0.12	0.0002	718.69	0.0000
200	13.97	0.21	0.09	0.0002	516.25	0.0000
250	10.61	0.16	0.07	0.0001	391.81	0.0000
500	4.18	0.06	0.03	4.8E-05	154.56	0.0000
1000	1.58	0.02	0.01	1.8E-05	58.40	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	1.10	0.47	0.0009	0.0000
30	0.96	0.41	0.0007	0.0000
40	0.84	0.36	0.0007	0.0000
50	0.74	0.31	0.0006	0.0000
60	0.66	0.28	0.0005	0.0000
80	0.53	0.22	0.0004	0.0000
100	0.43	0.18	0.0003	0.0000
150	0.29	0.12	0.0002	0.0000
200	0.21	0.09	0.0002	0.0000
250	0.16	0.07	0.0001	0.0000
500	0.06	0.03	4.8E-05	0.0000
1000	0.02	0.01	1.8E-05	0.0000

Averaged Multicomponent Health Impacts from Engine Degreasers for Facility G-03

Weightings:		
	1 24% Perc	41.0%
	2 99% TCE	59.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	1.28	0.54	0.0036	0.0040
30	1.11	0.47	0.0031	0.0035
40	0.97	0.41	0.0027	0.0030
50	0.86	0.36	0.0024	0.0027
60	0.76	0.32	0.0021	0.0024
80	0.61	0.26	0.0017	0.0019
100	0.50	0.21	0.0014	0.0016
150	0.33	0.14	0.0009	0.0010
200	0.24	0.10	0.0007	0.0007
250	0.18	0.08	0.0005	0.0006
500	0.07	0.03	0.0002	0.0002
1000	0.03	0.01	0.0001	0.0001

Risk Assessment Summary - 3 Generic Facilities

Multicomponent Impacts - General Degreasers - Average of 10 Met Sets

Facility G-01 - 24% Perc

Met Set: Averaged

24% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0151

Ann Rate [g/s]: 0.0016

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	1.20	0.51	0.0058	10938.41	0.0083
30	67.72	0.64	0.27	0.0031	8158.81	0.0062
40	41.93	0.40	0.17	0.0019	6322.28	0.0048
50	28.51	0.27	0.11	0.0013	5024.56	0.0038
60	20.66	0.19	0.08	0.0009	4082.78	0.0031
80	12.27	0.12	0.05	0.0006	2846.71	0.0021
100	8.12	0.08	0.03	0.0004	2100.30	0.0016
150	3.78	0.04	0.02	0.0002	1171.11	0.0009
200	2.18	0.02	0.01	0.0001	763.65	0.0006
250	1.42	0.01	0.01	0.0001	545.14	0.0004
500	0.37	0.00	0.00	1.7E-05	192.37	0.0001
1000	0.10	0.00	0.00	4.4E-06	72.27	5.5E-05

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	1.20	0.51	0.0058	0.0083
30	0.64	0.27	0.0031	0.0062
40	0.40	0.17	0.0019	0.0048
50	0.27	0.11	0.0013	0.0038
60	0.19	0.08	0.0009	0.0031
80	0.12	0.05	0.0006	0.0021
100	0.08	0.03	0.0004	0.0016
150	0.04	0.02	0.0002	0.0009
200	0.02	0.01	0.0001	0.0006
250	0.01	0.01	0.0001	0.0004
500	0.00	0.00	1.7E-05	0.0001
1000	0.00	0.00	4.4E-06	5.5E-05

Facility G-01 - 41% Perc, 55% MeCl

Met Set: Averaged

41% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.0259 | Ann Rate [g/s]: 0.0027

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	2.03	0.86	0.0098	10938.41	0.0142
30	67.72	1.08	0.46	0.0052	8158.81	0.0106
40	41.93	0.67	0.28	0.0032	6322.28	0.0082
50	28.51	0.45	0.19	0.0022	5024.56	0.0065
60	20.66	0.33	0.14	0.0016	4082.78	0.0053
80	12.27	0.20	0.08	0.0009	2846.71	0.0037
100	8.12	0.13	0.06	0.0006	2100.30	0.0027
150	3.78	0.06	0.03	0.0003	1171.11	0.0015
200	2.18	0.03	0.01	1.7E-04	763.65	0.0010
250	1.42	0.02	0.01	1.1E-04	545.14	0.0007
500	0.37	0.01	0.00	2.8E-05	192.37	2.5E-04
1000	0.10	0.00	0.00	7.4E-06	72.27	9.4E-05

55% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0347 | Ann Rate [g/s]: 0.0036

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	0.46	0.20	0.0011	10938.41	0.0271
30	67.72	0.24	0.10	0.0006	8158.81	0.0202
40	41.93	0.15	0.06	0.0004	6322.28	0.0157
50	28.51	0.10	0.04	0.0003	5024.56	0.0125
60	20.66	0.07	0.03	0.0002	4082.78	0.0101
80	12.27	0.04	0.02	0.0001	2846.71	0.0071
100	8.12	0.03	0.01	0.0001	2100.30	0.0052
150	3.78	0.01	0.01	3.41E-05	1171.11	0.0029
200	2.18	0.01	0.00	1.96E-05	763.65	0.0019
250	1.42	0.01	0.00	1.28E-05	545.14	0.0014
500	0.37	0.00	0.00	3.31E-06	192.37	0.0005
1000	0.10	0.00	0.00	8.64E-07	72.27	0.0002

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	2.49	1.06	0.0110	0.0413
30	1.32	0.56	0.0058	0.0308
40	0.82	0.35	0.0036	0.0239
50	0.56	0.24	0.0025	0.0190
60	0.40	0.17	0.0018	0.0154
80	0.24	0.10	0.0011	0.0107
100	0.16	0.07	0.0007	0.0079
150	0.07	0.03	0.0003	0.0044
200	0.04	0.02	0.0002	0.0029
250	0.03	0.01	1.2E-04	0.0021
500	0.01	0.00	3.2E-05	7.3E-04
1000	0.00	0.00	8.3E-06	2.7E-04

Facility G-01 - 46% MeCl

Met Set: Averaged

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

46% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0290 | Ann Rate [g/s]: 0.0030

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	0.38	0.16	0.0001	10938.41	0.0227
30	67.72	0.20	0.09	0.0001	8158.81	0.0169
40	41.93	0.13	0.05	4.2E-05	6322.28	0.0131
50	28.51	0.09	0.04	2.9E-05	5024.56	0.0104
60	20.66	0.06	0.03	2.1E-05	4082.78	0.0085
80	12.27	0.04	0.02	1.2E-05	2846.71	0.0059
100	8.12	0.02	0.01	8.1E-06	2100.30	0.0044
150	3.78	0.01	0.00	3.8E-06	1171.11	0.0024
200	2.18	0.01	0.00	2.2E-06	763.65	0.0016
250	1.42	0.00	0.00	1.4E-06	545.14	0.0011
500	0.37	0.00	0.00	3.7E-07	192.37	0.0004
1000	0.10	0.00	0.00	9.6E-08	72.27	0.0001

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	0.38	0.16	0.0001	0.0227
30	0.20	0.09	0.0001	0.0169
40	0.13	0.05	4.2E-05	0.0131
50	0.09	0.04	2.9E-05	0.0104
60	0.06	0.03	2.1E-05	0.0085
80	0.04	0.02	1.2E-05	0.0059
100	0.02	0.01	8.1E-06	0.0044
150	0.01	0.00	3.8E-06	0.0024
200	0.01	0.00	2.2E-06	0.0016
250	0.00	0.00	1.4E-06	0.0011
500	0.00	0.00	3.7E-07	0.0004
1000	0.00	0.00	9.6E-08	0.0001

Facility G-01 - 97% TCE

Met Set: Averaged

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	0.00	0.00	0.0000	10938.41	0.0000
30	67.72	0.00	0.00	0.0000	8158.81	0.0000
40	41.93	0.00	0.00	0.0000	6322.28	0.0000
50	28.51	0.00	0.00	0.0000	5024.56	0.0000
60	20.66	0.00	0.00	0.0000	4082.78	0.0000
80	12.27	0.00	0.00	0.0000	2846.71	0.0000
100	8.12	0.00	0.00	0.0000	2100.30	0.0000
150	3.78	0.00	0.00	0.0000	1171.11	0.0000
200	2.18	0.00	0.00	0.0000	763.65	0.0000
250	1.42	0.00	0.00	0.0000	545.14	0.0000
500	0.37	0.00	0.00	0.0000	192.37	0.0000
1000	0.10	0.00	0.00	0.0000	72.27	0.0000

97% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.0612 | Ann Rate [g/s]: 0.0064

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	127.54	1.63	0.69	0.0013	10938.41	0.0000
30	67.72	0.87	0.37	0.0007	8158.81	0.0000
40	41.93	0.54	0.23	0.0004	6322.28	0.0000
50	28.51	0.36	0.16	0.0003	5024.56	0.0000
60	20.66	0.26	0.11	0.0002	4082.78	0.0000
80	12.27	0.16	0.07	0.0001	2846.71	0.0000
100	8.12	0.10	0.04	0.0001	2100.30	0.0000
150	3.78	0.05	0.02	3.8E-05	1171.11	0.0000
200	2.18	0.03	0.01	2.2E-05	763.65	0.0000
250	1.42	0.02	0.01	1.4E-05	545.14	0.0000
500	0.37	0.00	0.00	3.7E-06	192.37	0.0000
1000	0.10	0.00	0.00	9.6E-07	72.27	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	1.63	0.69	0.0013	0.0000
30	0.87	0.37	0.0007	0.0000
40	0.54	0.23	0.0004	0.0000
50	0.36	0.16	0.0003	0.0000
60	0.26	0.11	0.0002	0.0000
80	0.16	0.07	0.0001	0.0000
100	0.10	0.04	0.0001	0.0000
150	0.05	0.02	3.8E-05	0.0000
200	0.03	0.01	2.2E-05	0.0000
250	0.02	0.01	1.4E-05	0.0000
500	0.00	0.00	3.7E-06	0.0000
1000	0.00	0.00	9.6E-07	0.0000

Averaged Multicomponent Health Impacts from General Degreasers for Facility G-01

Weightings:	1	24% Perc	5.3%
	2	41% Perc/55% MeCl	1.1%
	3	46% MeCl	7.2%
	4	97% TCE	86.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	1.52	0.65	0.0015	0.0025
30	0.81	0.34	0.0008	0.0019
40	0.50	0.21	0.0005	0.0015
50	0.34	0.14	0.0003	0.0012
60	0.25	0.10	0.0002	0.0009
80	0.15	0.06	0.0001	0.0007
100	0.10	0.04	0.0001	0.0005
150	0.05	0.02	0.0000	0.0003
200	0.03	0.01	2.6E-05	0.0002
250	0.02	0.01	1.7E-05	0.0001
500	0.00	0.00	4.4E-06	4.4E-05
1000	0.00	0.00	1.2E-06	1.7E-05

Facility G-02 - 24% Perc

Met Set: Averaged

24% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0151

Ann Rate [g/s]: 0.0016

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.70	0.30	0.0034	4985.68	0.0038
30	56.37	0.53	0.23	0.0026	4251.05	0.0032
40	36.41	0.34	0.15	0.0017	3540.67	0.0027
50	25.36	0.24	0.10	0.0012	3001.30	0.0023
60	18.66	0.18	0.07	0.0009	2575.36	0.0019
80	11.32	0.11	0.05	0.0005	1951.11	0.0015
100	7.60	0.07	0.03	0.0003	1532.53	0.0012
150	3.61	0.03	0.01	0.0002	943.04	0.0007
200	2.11	0.02	0.01	0.0001	647.01	0.0005
250	1.38	0.01	0.01	0.0001	477.16	0.0004
500	0.36	0.00	0.00	1.7E-05	180.51	0.0001
1000	0.10	0.00	0.00	4.4E-06	70.25	5.3E-05

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.70	0.30	0.0034	0.0038
30	0.53	0.23	0.0026	0.0032
40	0.34	0.15	0.0017	0.0027
50	0.24	0.10	0.0012	0.0023
60	0.18	0.07	0.0009	0.0019
80	0.11	0.05	0.0005	0.0015
100	0.07	0.03	0.0003	0.0012
150	0.03	0.01	0.0002	0.0007
200	0.02	0.01	0.0001	0.0005
250	0.01	0.01	0.0001	0.0004
500	0.00	0.00	1.7E-05	0.0001
1000	0.00	0.00	4.4E-06	5.3E-05

Facility G-02 - 41% Perc, 55% MeCl

Met Set: Averaged

41% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.0259 | Ann Rate [g/s]: 0.0027

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	1.18	0.50	0.0057	4985.68	0.0065
30	56.37	0.90	0.38	0.0043	4251.05	0.0055
40	36.41	0.58	0.25	0.0028	3540.67	0.0046
50	25.36	0.40	0.17	0.0020	3001.30	0.0039
60	18.66	0.30	0.13	0.0014	2575.36	0.0033
80	11.32	0.18	0.08	0.0009	1951.11	0.0025
100	7.60	0.12	0.05	0.0006	1532.53	0.0020
150	3.61	0.06	0.02	0.0003	943.04	0.0012
200	2.11	0.03	0.01	1.6E-04	647.01	0.0008
250	1.38	0.02	0.01	1.1E-04	477.16	0.0006
500	0.36	0.01	0.00	2.8E-05	180.51	2.3E-04
1000	0.10	0.00	0.00	7.4E-06	70.25	9.1E-05

55% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0347 | Ann Rate [g/s]: 0.0036

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.27	0.11	0.0007	4985.68	0.0124
30	56.37	0.20	0.09	0.0005	4251.05	0.0105
40	36.41	0.13	0.06	0.0003	3540.67	0.0088
50	25.36	0.09	0.04	0.0002	3001.30	0.0074
60	18.66	0.07	0.03	0.0002	2575.36	0.0064
80	11.32	0.04	0.02	0.0001	1951.11	0.0048
100	7.60	0.03	0.01	0.0001	1532.53	0.0038
150	3.61	0.01	0.01	3.3E-05	943.04	0.0023
200	2.11	0.01	0.00	1.9E-05	647.01	0.0016
250	1.38	0.00	0.00	1.2E-05	477.16	0.0012
500	0.36	0.00	0.00	3.3E-06	180.51	0.0004
1000	0.10	0.00	0.00	8.6E-07	70.25	0.0002

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	1.45	0.62	0.0064	0.0188
30	1.10	0.47	0.0049	0.0160
40	0.71	0.30	0.0031	0.0134
50	0.50	0.21	0.0022	0.0113
60	0.36	0.16	0.0016	0.0097
80	0.22	0.09	0.0010	0.0074
100	0.15	0.06	0.0007	0.0058
150	0.07	0.03	0.0003	0.0036
200	0.04	0.02	0.0002	0.0024
250	0.03	0.01	1.2E-04	0.0018
500	0.01	0.00	3.1E-05	6.8E-04
1000	0.00	0.00	8.3E-06	2.7E-04

Facility G-02 - 46% MeCl

Met Set: Averaged

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

46% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0290 | Ann Rate [g/s]: 0.0030

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.17	0.22	0.09	0.0001	4985.68	0.0103
30	56.37	0.17	0.07	0.0001	4251.05	0.0088
40	36.41	0.11	0.05	3.6E-05	3540.67	0.0073
50	25.36	0.08	0.03	2.5E-05	3001.30	0.0062
60	18.66	0.06	0.02	1.9E-05	2575.36	0.0053
80	11.32	0.03	0.01	1.1E-05	1951.11	0.0040
100	7.60	0.02	0.01	7.6E-06	1532.53	0.0032
150	3.61	0.01	0.00	3.6E-06	943.04	0.0020
200	2.11	0.01	0.00	2.1E-06	647.01	0.0013
250	1.38	0.00	0.00	1.4E-06	477.16	0.0010
500	0.36	0.00	0.00	3.6E-07	180.51	0.0004
1000	0.10	0.00	0.00	9.6E-08	70.25	0.0001

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	0.22	0.09	0.0001	0.0103
30	0.17	0.07	0.0001	0.0088
40	0.11	0.05	3.6E-05	0.0073
50	0.08	0.03	2.5E-05	0.0062
60	0.06	0.02	1.9E-05	0.0053
80	0.03	0.01	1.1E-05	0.0040
100	0.02	0.01	7.6E-06	0.0032
150	0.01	0.00	3.6E-06	0.0020
200	0.01	0.00	2.1E-06	0.0013
250	0.00	0.00	1.4E-06	0.0010
500	0.00	0.00	3.6E-07	0.0004
1000	0.00	0.00	9.6E-08	0.0001

Facility G-02 - 97% TCE

Met Set: Averaged

0% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.00	0.00	0.0000	4985.68	0.0000
30	56.37	0.00	0.00	0.0000	4251.05	0.0000
40	36.41	0.00	0.00	0.0000	3540.67	0.0000
50	25.36	0.00	0.00	0.0000	3001.30	0.0000
60	18.66	0.00	0.00	0.0000	2575.36	0.0000
80	11.32	0.00	0.00	0.0000	1951.11	0.0000
100	7.60	0.00	0.00	0.0000	1532.53	0.0000
150	3.61	0.00	0.00	0.0000	943.04	0.0000
200	2.11	0.00	0.00	0.0000	647.01	0.0000
250	1.38	0.00	0.00	0.0000	477.16	0.0000
500	0.36	0.00	0.00	0.0000	180.51	0.0000
1000	0.10	0.00	0.00	0.0000	70.25	0.0000

97% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0.0612

Ann Rate [g/s]: 0.0064

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	74.17	0.95	0.40	0.0007	4985.68	0.0000
30	56.37	0.72	0.31	0.0006	4251.05	0.0000
40	36.41	0.47	0.20	0.0004	3540.67	0.0000
50	25.36	0.32	0.14	0.0003	3001.30	0.0000
60	18.66	0.24	0.10	0.0002	2575.36	0.0000
80	11.32	0.14	0.06	0.0001	1951.11	0.0000
100	7.60	0.10	0.04	0.0001	1532.53	0.0000
150	3.61	0.05	0.02	3.6E-05	943.04	0.0000
200	2.11	0.03	0.01	2.1E-05	647.01	0.0000
250	1.38	0.02	0.01	1.4E-05	477.16	0.0000
500	0.36	0.00	0.00	3.6E-06	180.51	0.0000
1000	0.10	0.00	0.00	9.6E-07	70.25	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.95	0.40	0.0007	0.0000
30	0.72	0.31	0.0006	0.0000
40	0.47	0.20	0.0004	0.0000
50	0.32	0.14	0.0003	0.0000
60	0.24	0.10	0.0002	0.0000
80	0.14	0.06	0.0001	0.0000
100	0.10	0.04	0.0001	0.0000
150	0.05	0.02	3.6E-05	0.0000
200	0.03	0.01	2.1E-05	0.0000
250	0.02	0.01	1.4E-05	0.0000
500	0.00	0.00	3.6E-06	0.0000
1000	0.00	0.00	9.6E-07	0.0000

Averaged Multicomponent Health Impacts from General Degreasers for Facility G-02

Weightings:	1 24% Perc	5.3%
	2 41% Perc/55% MeCl	1.1%
	3 46% MeCl	7.2%
	4 97% TCE	86.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.89	0.38	0.0009	0.0012
30	0.67	0.29	0.0007	0.0010
40	0.43	0.19	0.0004	0.0008
50	0.30	0.13	0.0003	0.0007
60	0.22	0.09	0.0002	0.0006
80	0.14	0.06	0.0001	0.0005
100	0.09	0.04	0.0001	0.0004
150	0.04	0.02	4.4E-05	0.0002
200	0.03	0.01	2.5E-05	0.0001
250	0.02	0.01	1.7E-05	0.0001
500	0.00	0.00	4.4E-06	4.2E-05
1000	0.00	0.00	1.2E-06	1.6E-05

Facility G-03 - 24% Perc

Met Set: Averaged

24% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0151

Ann Rate [g/s]: 0.0016

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.16	0.07	0.0008	1231.74	0.0009
30	33.45	0.32	0.13	0.0015	1650.82	0.0012
40	27.02	0.26	0.11	0.0012	1484.02	0.0011
50	25.03	0.24	0.10	0.0011	2079.26	0.0016
60	20.90	0.20	0.08	0.0010	1915.91	0.0014
80	12.23	0.12	0.05	0.0006	1479.75	0.0011
100	8.02	0.08	0.03	0.0004	1184.75	0.0009
150	3.71	0.04	0.01	0.0002	769.33	0.0006
200	2.14	0.02	0.01	0.0001	550.34	0.0004
250	1.39	0.01	0.01	0.0001	417.99	0.0003
500	0.36	0.00	0.00	1.7E-05	169.20	0.0001
1000	0.10	0.00	0.00	4.4E-06	68.13	5.1E-05

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.16	0.07	0.0008	0.0009
30	0.32	0.13	0.0015	0.0012
40	0.26	0.11	0.0012	0.0011
50	0.24	0.10	0.0011	0.0016
60	0.20	0.08	0.0010	0.0014
80	0.12	0.05	0.0006	0.0011
100	0.08	0.03	0.0004	0.0009
150	0.04	0.01	0.0002	0.0006
200	0.02	0.01	0.0001	0.0004
250	0.01	0.01	0.0001	0.0003
500	0.00	0.00	1.7E-05	0.0001
1000	0.00	0.00	4.4E-06	5.1E-05

Facility G-03 - 41% Perc, 55% MeCl

Met Set: Averaged

41% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0.0259 | Ann Rate [g/s]: 0.0027

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.27	0.11	0.0013	1231.74	0.0016
30	33.45	0.53	0.23	0.0026	1650.82	0.0021
40	27.02	0.43	0.18	0.0021	1484.02	0.0019
50	25.03	0.40	0.17	0.0019	2079.26	0.0027
60	20.90	0.33	0.14	0.0016	1915.91	0.0025
80	12.23	0.19	0.08	0.0009	1479.75	0.0019
100	8.02	0.13	0.05	0.0006	1184.75	0.0015
150	3.71	0.06	0.03	0.0003	769.33	0.0010
200	2.14	0.03	0.01	1.6E-04	550.34	0.0007
250	1.39	0.02	0.01	1.1E-04	417.99	0.0005
500	0.36	0.01	0.00	2.8E-05	169.20	2.2E-04
1000	0.10	0.00	0.00	7.4E-06	68.13	8.8E-05

55% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0347 | Ann Rate [g/s]: 0.0036

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.06	0.03	0.0002	1231.74	0.0031
30	33.45	0.12	0.05	0.0003	1650.82	0.0041
40	27.02	0.10	0.04	0.0002	1484.02	0.0037
50	25.03	0.09	0.04	0.0002	2079.26	0.0052
60	20.90	0.08	0.03	0.0002	1915.91	0.0047
80	12.23	0.04	0.02	0.0001	1479.75	0.0037
100	8.02	0.03	0.01	0.0001	1184.75	0.0029
150	3.71	0.01	0.01	3.3E-05	769.33	0.0019
200	2.14	0.01	0.00	1.9E-05	550.34	0.0014
250	1.39	0.01	0.00	1.3E-05	417.99	0.0010
500	0.36	0.00	0.00	3.3E-06	169.20	0.0004
1000	0.10	0.00	0.00	8.6E-07	68.13	0.0002

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.0000 | Ann Rate [g/s]: 0.0000

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.33	0.14	0.0014	0.0046
30	0.65	0.28	0.0029	0.0062
40	0.53	0.22	0.0023	0.0056
50	0.49	0.21	0.0022	0.0078
60	0.41	0.17	0.0018	0.0072
80	0.24	0.10	0.0011	0.0056
100	0.16	0.07	0.0007	0.0045
150	0.07	0.03	0.0003	0.0029
200	0.04	0.02	0.0002	0.0021
250	0.03	0.01	1.2E-04	0.0016
500	0.01	0.00	3.1E-05	6.4E-04
1000	0.00	0.00	8.3E-06	2.6E-04

Facility G-03 - 46% MeCl

Met Set: Averaged

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

46% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0290 | Ann Rate [g/s]: 0.0030

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.05	0.02	1.7E-05	1231.74	0.0026
30	33.45	0.10	0.04	3.3E-05	1650.82	0.0034
40	27.02	0.08	0.03	2.7E-05	1484.02	0.0031
50	25.03	0.08	0.03	2.5E-05	2079.26	0.0043
60	20.90	0.06	0.03	2.1E-05	1915.91	0.0040
80	12.23	0.04	0.02	1.2E-05	1479.75	0.0031
100	8.02	0.02	0.01	8.0E-06	1184.75	0.0025
150	3.71	0.01	0.00	3.7E-06	769.33	0.0016
200	2.14	0.01	0.00	2.1E-06	550.34	0.0011
250	1.39	0.00	0.00	1.4E-06	417.99	0.0009
500	0.36	0.00	0.00	3.6E-07	169.20	0.0004
1000	0.10	0.00	0.00	9.6E-08	68.13	0.0001

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m]	ISC Ann Emis.	Cancer Risk [x/million]		Harzard Index	ISC Acute Emis	Hazard Index
Center	[ug/m^3]	Resident	Worker	Chronic	[ug/m^3]	Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.05	0.02	1.7E-05	0.0026
30	0.10	0.04	3.3E-05	0.0034
40	0.08	0.03	2.7E-05	0.0031
50	0.08	0.03	2.5E-05	0.0043
60	0.06	0.03	2.1E-05	0.0040
80	0.04	0.02	1.2E-05	0.0031
100	0.02	0.01	8.0E-06	0.0025
150	0.01	0.00	3.7E-06	0.0016
200	0.01	0.00	2.1E-06	0.0011
250	0.00	0.00	1.4E-06	0.0009
500	0.00	0.00	3.6E-07	0.0004
1000	0.00	0.00	9.6E-08	0.0001

Facility G-03 - 97% TCE

Met Set: Averaged

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	16.68	0.00	0.00	0.0000	1231.74	0.0000
30	33.45	0.00	0.00	0.0000	1650.82	0.0000
40	27.02	0.00	0.00	0.0000	1484.02	0.0000
50	25.03	0.00	0.00	0.0000	2079.26	0.0000
60	20.90	0.00	0.00	0.0000	1915.91	0.0000
80	12.23	0.00	0.00	0.0000	1479.75	0.0000
100	8.02	0.00	0.00	0.0000	1184.75	0.0000
150	3.71	0.00	0.00	0.0000	769.33	0.0000
200	2.14	0.00	0.00	0.0000	550.34	0.0000
250	1.39	0.00	0.00	0.0000	417.99	0.0000
500	0.36	0.00	0.00	0.0000	169.20	0.0000
1000	0.10	0.00	0.00	0.0000	68.13	0.0000

98% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.0612 | Ann Rate [g/s]: 0.0064

Distance [m] Center	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	16.68	0.21	0.09	0.0002	1231.74	0.0000
30	33.45	0.43	0.18	0.0003	1650.82	0.0000
40	27.02	0.35	0.15	0.0003	1484.02	0.0000
50	25.03	0.32	0.14	0.0003	2079.26	0.0000
60	20.90	0.27	0.11	0.0002	1915.91	0.0000
80	12.23	0.16	0.07	0.0001	1479.75	0.0000
100	8.02	0.10	0.04	0.0001	1184.75	0.0000
150	3.71	0.05	0.02	3.7E-05	769.33	0.0000
200	2.14	0.03	0.01	2.1E-05	550.34	0.0000
250	1.39	0.02	0.01	1.4E-05	417.99	0.0000
500	0.36	0.00	0.00	3.6E-06	169.20	0.0000
1000	0.10	0.00	0.00	9.6E-07	68.13	0.0000

Total Health Impacts

Distance [m] Center	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	0.21	0.09	0.0002	0.0000
30	0.43	0.18	0.0003	0.0000
40	0.35	0.15	0.0003	0.0000
50	0.32	0.14	0.0003	0.0000
60	0.27	0.11	0.0002	0.0000
80	0.16	0.07	0.0001	0.0000
100	0.10	0.04	0.0001	0.0000
150	0.05	0.02	3.7E-05	0.0000
200	0.03	0.01	2.1E-05	0.0000
250	0.02	0.01	1.4E-05	0.0000
500	0.00	0.00	3.6E-06	0.0000
1000	0.00	0.00	9.6E-07	0.0000

Averaged Multicomponent Health Impacts from General Degreasers for Facility G-03

Weightings:		
	1 24% Perc	5.3%
	2 41% Perc/55% MeCl	1.1%
	3 46% MeCl	7.2%
	4 97% TCE	86.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Center	Resident	Worker	Chronic	Acute
20	0.20	0.08	0.0002	0.0003
30	0.40	0.17	0.0004	0.0004
40	0.32	0.14	0.0003	0.0003
50	0.30	0.13	0.0003	0.0005
60	0.25	0.11	0.0003	0.0004
80	0.15	0.06	0.0001	0.0003
100	0.10	0.04	0.0001	0.0003
150	0.04	0.02	4.5E-05	0.0002
200	0.03	0.01	2.6E-05	0.0001
250	0.02	0.01	1.7E-05	0.0001
500	0.00	0.00	4.4E-06	3.9E-05
1000	0.00	0.00	1.2E-06	1.6E-05

Risk Assessment Summary - 3 Generic Facilities
Multicomponent Impacts - General Degreasers - Default Met

Facility G-01 - 24% Perc

Met Set: Default-0

24% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0151
Ann Rate [g/s]: 0.0016

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	2.90	1.23	0.0140	11342.73	0.0086
30	229.98	2.17	0.92	0.0105	8496.33	0.0064
40	178.09	1.68	0.72	0.0081	6579.11	0.0050
50	141.80	1.34	0.57	0.0065	5238.72	0.0040
60	115.56	1.09	0.46	0.0053	4269.33	0.0032
80	81.09	0.77	0.33	0.0037	2995.85	0.0023
100	60.18	0.57	0.24	0.0028	2223.11	0.0017
150	33.55	0.32	0.13	0.0015	1239.31	0.0009
200	21.63	0.20	0.09	0.0010	799.09	0.0006
250	15.25	0.14	0.06	0.0007	563.57	0.0004
500	5.08	0.05	0.02	0.0002	187.51	0.0001
1000	1.74	0.02	0.01	0.0001	64.26	4.9E-05

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	2.90	1.23	0.0140	0.0086
30	2.17	0.92	0.0105	0.0064
40	1.68	0.72	0.0081	0.0050
50	1.34	0.57	0.0065	0.0040
60	1.09	0.46	0.0053	0.0032
80	0.77	0.33	0.0037	0.0023
100	0.57	0.24	0.0028	0.0017
150	0.32	0.13	0.0015	0.0009
200	0.20	0.09	0.0010	0.0006
250	0.14	0.06	0.0007	0.0004
500	0.05	0.02	0.0002	0.0001
1000	0.02	0.01	0.0001	4.9E-05

Facility G-01 - 41% Perc, 55% MeCl

Met Set: Default-0

41% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0259
Ann Rate [g/s]: 0.0027

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	4.89	2.08	0.0237	11342.73	0.0147
30	229.98	3.66	1.56	0.0177	8496.33	0.0110
40	178.09	2.84	1.21	0.0137	6579.11	0.0085
50	141.80	2.26	0.96	0.0109	5238.72	0.0068
60	115.56	1.84	0.78	0.0089	4269.33	0.0055
80	81.09	1.29	0.55	0.0063	2995.85	0.0039
100	60.18	0.96	0.41	0.0046	2223.11	0.0029
150	33.55	0.53	0.23	0.0026	1239.31	0.0016
200	21.63	0.34	0.15	0.0017	799.09	0.0010
250	15.25	0.24	0.10	0.0012	563.57	0.0007
500	5.08	0.08	0.03	0.0004	187.51	0.0002
1000	1.74	0.03	0.01	0.0001	64.26	0.0001

55% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0347
Ann Rate [g/s]: 0.0036

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	1.11	0.47	0.0028	11342.73	0.0281
30	229.98	0.83	0.35	0.0021	8496.33	0.0211
40	178.09	0.64	0.27	0.0016	6579.11	0.0163
50	141.80	0.51	0.22	0.0013	5238.72	0.0130
60	115.56	0.42	0.18	0.0010	4269.33	0.0106
80	81.09	0.29	0.12	0.0007	2995.85	0.0074
100	60.18	0.22	0.09	0.0005	2223.11	0.0055
150	33.55	0.12	0.05	0.0003	1239.31	0.0031
200	21.63	0.08	0.03	0.0002	799.09	0.0020
250	15.25	0.05	0.02	0.0001	563.57	0.0014
500	5.08	0.02	0.01	4.57E-05	187.51	0.0005
1000	1.74	0.01	0.00	1.57E-05	64.26	0.0002

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	6.00	2.55	0.0264	0.0428
30	4.49	1.91	0.0198	0.0321
40	3.48	1.48	0.0153	0.0248
50	2.77	1.18	0.0122	0.0198
60	2.26	0.96	0.0100	0.0161
80	1.58	0.67	0.0070	0.0113
100	1.18	0.50	0.0052	0.0084
150	0.66	0.28	0.0029	0.0047
200	0.42	0.18	0.0019	0.0030
250	0.30	0.13	0.0013	0.0021
500	0.10	0.04	0.0004	0.0007
1000	0.03	0.01	0.0001	0.0002

Facility G-01 - 46% MeCl

Met Set: Default-0

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

46% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0290 | Ann Rate [g/s]: 0.0030

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.92	0.39	0.0003	11342.73	0.0235
30	229.98	0.69	0.29	0.0002	8496.33	0.0176
40	178.09	0.53	0.23	0.0002	6579.11	0.0136
50	141.80	0.43	0.18	0.0001	5238.72	0.0109
60	115.56	0.35	0.15	0.0001	4269.33	0.0088
80	81.09	0.24	0.10	0.0001	2995.85	0.0062
100	60.18	0.18	0.08	0.0001	2223.11	0.0046
150	33.55	0.10	0.04	3.4E-05	1239.31	0.0026
200	21.63	0.06	0.03	2.2E-05	799.09	0.0017
250	15.25	0.05	0.02	1.5E-05	563.57	0.0012
500	5.08	0.02	0.01	5.1E-06	187.51	0.0004
1000	1.74	0.01	0.00	1.7E-06	64.26	0.0001

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	0.92	0.39	0.0003	0.0235
30	0.69	0.29	0.0002	0.0176
40	0.53	0.23	0.0002	0.0136
50	0.43	0.18	0.0001	0.0109
60	0.35	0.15	0.0001	0.0088
80	0.24	0.10	0.0001	0.0062
100	0.18	0.08	0.0001	0.0046
150	0.10	0.04	3.4E-05	0.0026
200	0.06	0.03	2.2E-05	0.0017
250	0.05	0.02	1.5E-05	0.0012
500	0.02	0.01	5.1E-06	0.0004
1000	0.01	0.00	1.7E-06	0.0001

Facility G-01 - 97% TCE

Met Set: Default-0

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	0.00	0.00	0.0000	11342.73	0.0000
30	229.98	0.00	0.00	0.0000	8496.33	0.0000
40	178.09	0.00	0.00	0.0000	6579.11	0.0000
50	141.80	0.00	0.00	0.0000	5238.72	0.0000
60	115.56	0.00	0.00	0.0000	4269.33	0.0000
80	81.09	0.00	0.00	0.0000	2995.85	0.0000
100	60.18	0.00	0.00	0.0000	2223.11	0.0000
150	33.55	0.00	0.00	0.0000	1239.31	0.0000
200	21.63	0.00	0.00	0.0000	799.09	0.0000
250	15.25	0.00	0.00	0.0000	563.57	0.0000
500	5.08	0.00	0.00	0.0000	187.51	0.0000
1000	1.74	0.00	0.00	0.0000	64.26	0.0000

97% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.0612 | Ann Rate [g/s]: 0.0064

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	307.03	3.93	1.67	0.0031	11342.73	0.0000
30	229.98	2.94	1.25	0.0023	8496.33	0.0000
40	178.09	2.28	0.97	0.0018	6579.11	0.0000
50	141.80	1.82	0.77	0.0014	5238.72	0.0000
60	115.56	1.48	0.63	0.0012	4269.33	0.0000
80	81.09	1.04	0.44	0.0008	2995.85	0.0000
100	60.18	0.77	0.33	0.0006	2223.11	0.0000
150	33.55	0.43	0.18	0.0003	1239.31	0.0000
200	21.63	0.28	0.12	0.0002	799.09	0.0000
250	15.25	0.20	0.08	0.0002	563.57	0.0000
500	5.08	0.06	0.03	0.0001	187.51	0.0000
1000	1.74	0.02	0.01	1.7E-05	64.26	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	3.93	1.67	0.0031	0.0000
30	2.94	1.25	0.0023	0.0000
40	2.28	0.97	0.0018	0.0000
50	1.82	0.77	0.0014	0.0000
60	1.48	0.63	0.0012	0.0000
80	1.04	0.44	0.0008	0.0000
100	0.77	0.33	0.0006	0.0000
150	0.43	0.18	0.0003	0.0000
200	0.28	0.12	0.0002	0.0000
250	0.20	0.08	0.0002	0.0000
500	0.06	0.03	0.0001	0.0000
1000	0.02	0.01	1.7E-05	0.0000

Averaged Multicomponent Health Impacts from General Degreasers for Facility G-01

Weightings:	1	24% Perc	5.3%
	2	41% Perc/55% MeCl	1.1%
	3	46% MeCl	7.2%
	4	97% TCE	86.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	3.67	1.56	0.0037	0.0026
30	2.75	1.17	0.0028	0.0020
40	2.13	0.91	0.0021	0.0015
50	1.69	0.72	0.0017	0.0012
60	1.38	0.59	0.0014	0.0010
80	0.97	0.41	0.0010	0.0007
100	0.72	0.31	0.0007	0.0005
150	0.40	0.17	0.0004	0.0003
200	0.26	0.11	0.0003	0.0002
250	0.18	0.08	0.0002	0.0001
500	0.06	0.03	0.0001	4.3E-05
1000	0.02	0.01	2.1E-05	1.5E-05

Facility G-02 - 24% Perc

Met Set: Default-0

24% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0151

Ann Rate [g/s]: 0.0016

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	1.35	0.57	0.0065	5276.51	0.0040
30	117.98	1.11	0.47	0.0054	4358.64	0.0033
40	98.78	0.93	0.40	0.0045	3649.09	0.0028
50	83.77	0.79	0.34	0.0038	3094.79	0.0023
60	71.89	0.68	0.29	0.0033	2656.01	0.0020
80	54.62	0.52	0.22	0.0025	2017.70	0.0015
100	42.94	0.41	0.17	0.0020	1586.22	0.0012
150	26.25	0.25	0.11	0.0012	969.72	0.0007
200	17.86	0.17	0.07	0.0008	659.99	0.0005
250	13.05	0.12	0.05	0.0006	482.19	0.0004
500	4.69	0.04	0.02	0.0002	173.33	0.0001
1000	1.68	0.02	0.01	0.0001	61.90	4.7E-05

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	1.35	0.57	0.0065	0.0040
30	1.11	0.47	0.0054	0.0033
40	0.93	0.40	0.0045	0.0028
50	0.79	0.34	0.0038	0.0023
60	0.68	0.29	0.0033	0.0020
80	0.52	0.22	0.0025	0.0015
100	0.41	0.17	0.0020	0.0012
150	0.25	0.11	0.0012	0.0007
200	0.17	0.07	0.0008	0.0005
250	0.12	0.05	0.0006	0.0004
500	0.04	0.02	0.0002	0.0001
1000	0.02	0.01	0.0001	4.7E-05

Facility G-02 - 41% Perc, 55% MeCl

Met Set: Default-0

41% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0259
Ann Rate [g/s]: 0.0027

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	2.28	0.97	0.0110	5276.51	0.0068
30	117.98	1.88	0.80	0.0091	4358.64	0.0056
40	98.78	1.57	0.67	0.0076	3649.09	0.0047
50	83.77	1.33	0.57	0.0065	3094.79	0.0040
60	71.89	1.15	0.49	0.0055	2656.01	0.0034
80	54.62	0.87	0.37	0.0042	2017.70	0.0026
100	42.94	0.68	0.29	0.0033	1586.22	0.0021
150	26.25	0.42	0.18	0.0020	969.72	0.0013
200	17.86	0.28	0.12	0.0014	659.99	0.0009
250	13.05	0.21	0.09	0.0010	482.19	0.0006
500	4.69	0.07	0.03	0.0004	173.33	0.0002
1000	1.68	0.03	0.01	0.0001	61.90	8.0E-05

55% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0347
Ann Rate [g/s]: 0.0036

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.51	0.22	0.0013	5276.51	0.0131
30	117.98	0.42	0.18	0.0011	4358.64	0.0108
40	98.78	0.36	0.15	0.0009	3649.09	0.0090
50	83.77	0.30	0.13	0.0008	3094.79	0.0077
60	71.89	0.26	0.11	0.0006	2656.01	0.0066
80	54.62	0.20	0.08	0.0005	2017.70	0.0050
100	42.94	0.15	0.07	0.0004	1586.22	0.0039
150	26.25	0.09	0.04	0.0002	969.72	0.0024
200	17.86	0.06	0.03	0.0002	659.99	0.0016
250	13.05	0.05	0.02	0.0001	482.19	0.0012
500	4.69	0.02	0.01	4.2E-05	173.33	0.0004
1000	1.68	0.01	0.00	1.5E-05	61.90	0.0002

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	2.79	1.19	0.0123	0.0199
30	2.30	0.98	0.0102	0.0164
40	1.93	0.82	0.0085	0.0138
50	1.64	0.70	0.0072	0.0117
60	1.40	0.60	0.0062	0.0100
80	1.07	0.45	0.0047	0.0076
100	0.84	0.36	0.0037	0.0060
150	0.51	0.22	0.0023	0.0037
200	0.35	0.15	0.0015	0.0025
250	0.25	0.11	0.0011	0.0018
500	0.09	0.04	0.0004	0.0007
1000	0.03	0.01	1.4E-04	2.3E-04

Facility G-02 - 46% MeCl

Met Set: Default-0

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

46% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0290 | Ann Rate [g/s]: 0.0030

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.43	0.18	0.0001	5276.51	0.0109
30	117.98	0.35	0.15	0.0001	4358.64	0.0090
40	98.78	0.30	0.13	0.0001	3649.09	0.0076
50	83.77	0.25	0.11	8.4E-05	3094.79	0.0064
60	71.89	0.22	0.09	7.2E-05	2656.01	0.0055
80	54.62	0.16	0.07	5.5E-05	2017.70	0.0042
100	42.94	0.13	0.05	4.3E-05	1586.22	0.0033
150	26.25	0.08	0.03	2.6E-05	969.72	0.0020
200	17.86	0.05	0.02	1.8E-05	659.99	0.0014
250	13.05	0.04	0.02	1.3E-05	482.19	0.0010
500	4.69	0.01	0.01	4.7E-06	173.33	0.0004
1000	1.68	0.01	0.00	1.7E-06	61.90	0.0001

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	0.43	0.18	0.0001	0.0109
30	0.35	0.15	0.0001	0.0090
40	0.30	0.13	0.0001	0.0076
50	0.25	0.11	8.4E-05	0.0064
60	0.22	0.09	7.2E-05	0.0055
80	0.16	0.07	5.5E-05	0.0042
100	0.13	0.05	4.3E-05	0.0033
150	0.08	0.03	2.6E-05	0.0020
200	0.05	0.02	1.8E-05	0.0014
250	0.04	0.02	1.3E-05	0.0010
500	0.01	0.01	4.7E-06	0.0004
1000	0.01	0.00	1.7E-06	0.0001

Facility G-02 - 97% TCE

Met Set: Default-0

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	0.00	0.00	0.0000	5276.51	0.0000
30	117.98	0.00	0.00	0.0000	4358.64	0.0000
40	98.78	0.00	0.00	0.0000	3649.09	0.0000
50	83.77	0.00	0.00	0.0000	3094.79	0.0000
60	71.89	0.00	0.00	0.0000	2656.01	0.0000
80	54.62	0.00	0.00	0.0000	2017.70	0.0000
100	42.94	0.00	0.00	0.0000	1586.22	0.0000
150	26.25	0.00	0.00	0.0000	969.72	0.0000
200	17.86	0.00	0.00	0.0000	659.99	0.0000
250	13.05	0.00	0.00	0.0000	482.19	0.0000
500	4.69	0.00	0.00	0.0000	173.33	0.0000
1000	1.68	0.00	0.00	0.0000	61.90	0.0000

97% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.0612 | Ann Rate [g/s]: 0.0064

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	142.83	1.83	0.78	0.0014	5276.51	0.0000
30	117.98	1.51	0.64	0.0012	4358.64	0.0000
40	98.78	1.26	0.54	0.0010	3649.09	0.0000
50	83.77	1.07	0.46	0.0008	3094.79	0.0000
60	71.89	0.92	0.39	0.0007	2656.01	0.0000
80	54.62	0.70	0.30	0.0005	2017.70	0.0000
100	42.94	0.55	0.23	0.0004	1586.22	0.0000
150	26.25	0.34	0.14	0.0003	969.72	0.0000
200	17.86	0.23	0.10	0.0002	659.99	0.0000
250	13.05	0.17	0.07	0.0001	482.19	0.0000
500	4.69	0.06	0.03	4.7E-05	173.33	0.0000
1000	1.68	0.02	0.01	1.7E-05	61.90	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	1.83	0.78	0.0014	0.0000
30	1.51	0.64	0.0012	0.0000
40	1.26	0.54	0.0010	0.0000
50	1.07	0.46	0.0008	0.0000
60	0.92	0.39	0.0007	0.0000
80	0.70	0.30	0.0005	0.0000
100	0.55	0.23	0.0004	0.0000
150	0.34	0.14	0.0003	0.0000
200	0.23	0.10	0.0002	0.0000
250	0.17	0.07	0.0001	0.0000
500	0.06	0.03	4.7E-05	0.0000
1000	0.02	0.01	1.7E-05	0.0000

Averaged Multicomponent Health Impacts from General Degreasers for Facility G-02

Weightings:	1	24% Perc	5.3%
	2	41% Perc/55% MeCl	1.1%
	3	46% MeCl	7.2%
	4	97% TCE	86.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	1.71	0.73	0.0017	0.0012
30	1.41	0.60	0.0014	0.0010
40	1.18	0.50	0.0012	0.0008
50	1.00	0.43	0.0010	0.0007
60	0.86	0.37	0.0009	0.0006
80	0.65	0.28	0.0007	0.0005
100	0.51	0.22	0.0005	0.0004
150	0.31	0.13	0.0003	0.0002
200	0.21	0.09	0.0002	0.0002
250	0.16	0.07	0.0002	0.0001
500	0.06	0.02	0.0001	4.0E-05
1000	0.02	0.01	2.0E-05	1.4E-05

Facility G-03 - 24% Perc

Met Set: Default-0

24% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0151

Ann Rate [g/s]: 0.0016

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.70	0.30	0.0034	2744.96	0.0021
30	64.57	0.61	0.26	0.0030	2385.45	0.0018
40	56.52	0.53	0.23	0.0026	2088.05	0.0016
50	49.84	0.47	0.20	0.0023	1841.40	0.0014
60	44.27	0.42	0.18	0.0020	1635.59	0.0012
80	35.62	0.34	0.14	0.0016	1315.96	0.0010
100	29.32	0.28	0.12	0.0013	1083.10	0.0008
150	19.45	0.18	0.08	0.0009	718.69	0.0005
200	13.97	0.13	0.06	0.0006	516.25	0.0004
250	10.61	0.10	0.04	0.0005	391.81	0.0003
500	4.18	0.04	0.02	0.0002	154.56	0.0001
1000	1.58	0.01	0.01	0.0001	58.40	4.4E-05

0% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0

Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	0.70	0.30	0.0034	0.0021
30	0.61	0.26	0.0030	0.0018
40	0.53	0.23	0.0026	0.0016
50	0.47	0.20	0.0023	0.0014
60	0.42	0.18	0.0020	0.0012
80	0.34	0.14	0.0016	0.0010
100	0.28	0.12	0.0013	0.0008
150	0.18	0.08	0.0009	0.0005
200	0.13	0.06	0.0006	0.0004
250	0.10	0.04	0.0005	0.0003
500	0.04	0.02	0.0002	0.0001
1000	0.01	0.01	0.0001	4.4E-05

Facility G-03 - 41% Perc, 55% MeCl

Met Set: Default-0

41% Perc

op hrs/wk: 57

Acu Rate [g/s]: 0.0259
Ann Rate [g/s]: 0.0027

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	1.18	0.50	0.0057	2744.96	0.0036
30	64.57	1.03	0.44	0.0050	2385.45	0.0031
40	56.52	0.90	0.38	0.0044	2088.05	0.0027
50	49.84	0.79	0.34	0.0038	1841.40	0.0024
60	44.27	0.71	0.30	0.0034	1635.59	0.0021
80	35.62	0.57	0.24	0.0027	1315.96	0.0017
100	29.32	0.47	0.20	0.0023	1083.10	0.0014
150	19.45	0.31	0.13	0.0015	718.69	0.0009
200	13.97	0.22	0.09	0.0011	516.25	0.0007
250	10.61	0.17	0.07	0.0008	391.81	0.0005
500	4.18	0.07	0.03	0.0003	154.56	2.0E-04
1000	1.58	0.03	0.01	1.2E-04	58.40	7.6E-05

55% MeCl

op hrs/wk: 57

Acu Rate [g/s]: 0.0347
Ann Rate [g/s]: 0.0036

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.27	0.11	0.0007	2744.96	0.0068
30	64.57	0.23	0.10	0.0006	2385.45	0.0059
40	56.52	0.20	0.09	0.0005	2088.05	0.0052
50	49.84	0.18	0.08	0.0004	1841.40	0.0046
60	44.27	0.16	0.07	0.0004	1635.59	0.0041
80	35.62	0.13	0.05	0.0003	1315.96	0.0033
100	29.32	0.11	0.04	0.0003	1083.10	0.0027
150	19.45	0.07	0.03	0.0002	718.69	0.0018
200	13.97	0.05	0.02	0.0001	516.25	0.0013
250	10.61	0.04	0.02	0.0001	391.81	0.0010
500	4.18	0.02	0.01	3.8E-05	154.56	0.0004
1000	1.58	0.01	0.00	1.4E-05	58.40	0.0001

0% TCE

op hrs/wk: 57

Acu Rate [g/s]: 0
Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	1.45	0.62	0.0064	0.0104
30	1.26	0.54	0.0056	0.0090
40	1.10	0.47	0.0049	0.0079
50	0.97	0.41	0.0043	0.0069
60	0.86	0.37	0.0038	0.0062
80	0.70	0.30	0.0031	0.0050
100	0.57	0.24	0.0025	0.0041
150	0.38	0.16	0.0017	0.0027
200	0.27	0.12	0.0012	0.0019
250	0.21	0.09	0.0009	0.0015
500	0.08	0.03	0.0004	5.8E-04
1000	0.03	0.01	1.4E-04	2.2E-04

Facility G-03 - 46% MeCl

Met Set: Default-0

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

46% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0.0290 | Ann Rate [g/s]: 0.0030

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.22	0.09	0.0001	2744.96	0.0057
30	64.57	0.19	0.08	0.0001	2385.45	0.0049
40	56.52	0.17	0.07	0.0001	2088.05	0.0043
50	49.84	0.15	0.06	0.0000	1841.40	0.0038
60	44.27	0.13	0.06	0.0000	1635.59	0.0034
80	35.62	0.11	0.05	3.6E-05	1315.96	0.0027
100	29.32	0.09	0.04	2.9E-05	1083.10	0.0022
150	19.45	0.06	0.02	1.9E-05	718.69	0.0015
200	13.97	0.04	0.02	1.4E-05	516.25	0.0011
250	10.61	0.03	0.01	1.1E-05	391.81	0.0008
500	4.18	0.01	0.01	4.2E-06	154.56	0.0003
1000	1.58	0.00	0.00	1.6E-06	58.40	0.0001

0% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	0.22	0.09	0.0001	0.0057
30	0.19	0.08	0.0001	0.0049
40	0.17	0.07	0.0001	0.0043
50	0.15	0.06	4.98E-05	0.0038
60	0.13	0.06	4.43E-05	0.0034
80	0.11	0.05	3.6E-05	0.0027
100	0.09	0.04	2.9E-05	0.0022
150	0.06	0.02	1.9E-05	0.0015
200	0.04	0.02	1.4E-05	0.0011
250	0.03	0.01	1.1E-05	0.0008
500	0.01	0.01	4.2E-06	0.0003
1000	0.00	0.00	1.6E-06	0.0001

Facility G-03 - 97% TCE

Met Set: Default-0

0% Perc

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

0% MeCl

op hrs/wk: 57 | Acu Rate [g/s]: 0 | Ann Rate [g/s]: 0

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.00	0.00	0.0000	2744.96	0.0000
30	64.57	0.00	0.00	0.0000	2385.45	0.0000
40	56.52	0.00	0.00	0.0000	2088.05	0.0000
50	49.84	0.00	0.00	0.0000	1841.40	0.0000
60	44.27	0.00	0.00	0.0000	1635.59	0.0000
80	35.62	0.00	0.00	0.0000	1315.96	0.0000
100	29.32	0.00	0.00	0.0000	1083.10	0.0000
150	19.45	0.00	0.00	0.0000	718.69	0.0000
200	13.97	0.00	0.00	0.0000	516.25	0.0000
250	10.61	0.00	0.00	0.0000	391.81	0.0000
500	4.18	0.00	0.00	0.0000	154.56	0.0000
1000	1.58	0.00	0.00	0.0000	58.40	0.0000

97% TCE

op hrs/wk: 57 | Acu Rate [g/s]: 0.0612 | Ann Rate [g/s]: 0.0064

Distance [m] Envelope	ISC Ann Emis. [ug/m^3]	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	ISC Acute Emis [ug/m^3]	Hazard Index Acute
20	74.30	0.95	0.40	0.0007	2744.96	0.0000
30	64.57	0.83	0.35	0.0006	2385.45	0.0000
40	56.52	0.72	0.31	0.0006	2088.05	0.0000
50	49.84	0.64	0.27	0.0005	1841.40	0.0000
60	44.27	0.57	0.24	0.0004	1635.59	0.0000
80	35.62	0.46	0.19	0.0004	1315.96	0.0000
100	29.32	0.38	0.16	0.0003	1083.10	0.0000
150	19.45	0.25	0.11	0.0002	718.69	0.0000
200	13.97	0.18	0.08	0.0001	516.25	0.0000
250	10.61	0.14	0.06	0.0001	391.81	0.0000
500	4.18	0.05	0.02	4.2E-05	154.56	0.0000
1000	1.58	0.02	0.01	1.6E-05	58.40	0.0000

Total Health Impacts

Distance [m] Envelope	Cancer Risk [x/million] Resident	Worker	Harzard Index Chronic	Hazard Index Acute
20	0.95	0.40	0.0007	0.0000
30	0.83	0.35	0.0006	0.0000
40	0.72	0.31	0.0006	0.0000
50	0.64	0.27	0.0005	0.0000
60	0.57	0.24	0.0004	0.0000
80	0.46	0.19	0.0004	0.0000
100	0.38	0.16	0.0003	0.0000
150	0.25	0.11	0.0002	0.0000
200	0.18	0.08	0.0001	0.0000
250	0.14	0.06	0.0001	0.0000
500	0.05	0.02	4.2E-05	0.0000
1000	0.02	0.01	1.6E-05	0.0000

Averaged Multicomponent Health Impacts from General Degreasers for Facility G-03

Weightings:	1	24% Perc	5.3%
	2	41% Perc/55% MeCl	1.1%
	3	46% MeCl	7.2%
	4	97% TCE	86.0%

Total Health Impacts

Distance [m]	Cancer Risk [x/million]		Harzard Index	Hazard Index
Envelope	Resident	Worker	Chronic	Acute
20	0.89	0.38	0.0009	0.0006
30	0.77	0.33	0.0008	0.0006
40	0.67	0.29	0.0007	0.0005
50	0.60	0.25	0.0006	0.0004
60	0.53	0.23	0.0005	0.0004
80	0.43	0.18	0.0004	0.0003
100	0.35	0.15	0.0004	0.0002
150	0.23	0.10	0.0002	0.0002
200	0.17	0.07	0.0002	0.0001
250	0.13	0.05	0.0001	0.0001
500	0.05	0.02	0.0001	3.6E-05
1000	0.02	0.01	1.9E-05	1.3E-05

E. Memorandum. Modeling of Perchloroethylene, Methylene Chloride, and Trichloroethylene Emissions from Automotive Maintenance and Repair Facilities

(memo starts on the following page)

Air Resources Board

Alan C. Lloyd, Ph.D.
Chairman
2020 L Street • P.O. Box 2815 • Sacramento. California 95812 • www.arb.ca.gov

Winston H. Hickox
Agency Secretary

Gray Davis
Governor

MEMORANDUM

TO: Todd Wong, Manager
Emissions Evaluation Section
Stationary Source Division

FROM: Andrew Ranzieri, Manager
Modeling Support Section
Planning and Technical Support Division

DATE: January 11, 2000

SUBJECT: MODELING RESULTS FOR PERCHLOROETHYLENE (PERC), METHYLENE CHLORIDE (MECI), AND TRICHLOROETHYLENE (TCE) EMISSIONS FROM AUTOMOTIVE MAINTENANCE AND REPAIR FACILITIES (AMR)

Perchloroethylene (Perc), methylene chloride (MeCl), and trichloroethylene (TCE) are common constituents of automotive consumer products used for Automotive Maintenance and Repair (AMR) activities. Per your request, refined air dispersion modeling has been performed to estimate downwind concentrations from AMR facilities. Specifically, this memo addresses the following requests:

1. Estimate the overall maximum hourly and overall maximum annual concentrations of Perc, MeCl, and TCE attributable to specific AMR facilities;

2. Estimate the maximum hourly and maximum annual concentrations of Perc, MeCl, and TCE attributable to specific AMR facilities experienced by the nearest business receptor (NBR), nearest residential receptor (NRR), maximum exposed individual worker (MEIW), and maximum exposed individual resident (MEIR);

3. Estimate the population exposure to Perc, MeCl, and TCE concentrations attributable to specific AMR facilities; and

4. Estimate the range of hourly and annual Perc, MeCl, and TCE concentrations that might result from the individual operation of three hypothetical, generic facilities in several locations throughout the State of California.

Your staff provided information on thirteen specific facilities. This information is based on site visits that your staff performed. In addition, your staff provided information on three generic facilities that were designed to broadly represent the range of facilities that are in operation in California. Generic facilities are labeled G-01, G-02, and G-03. Table 1A provides the coordinates and general location of each specific facility while Table 1B gives the dimensions and operating schedule for each specific facility. Above-ambient, hourly and annual concentration estimates are provided at locations surrounding each of the facilities. This refined modeling is an enhancement to the screening analyses performed by your staff using the SCREEN3 dispersion model.

Discussion of Model Application

The ISCST3 (Version 97363) air dispersion model was utilized in this project. The model estimates concentrations at specified receptor locations around each facility, directly caused by each facility's emissions. The receptors can be defined as individual locations, a gridded network of locations (defined by a number of rows and columns), or a polar network of locations (defined by a number of points along multiple radials, separated by an angular distance). Table 2 provides a description of the receptor networks used in this analysis. The closest receptor utilized for specific facility modeling is approximately 32 meters from the centroid of the source. Concentrations closer than 32 meters to the source centroid could be higher. This distance was selected based upon the size of the largest of the thirteen facilities to eliminate the chance of receptors falling inside the perimeter of each facility. In addition, discrete receptors were used to identify businesses and residences located nearby each of the facilities by your staff. These receptors are discussed in more detail later. Your staff requested the specific polar distances used for generic facility modeling. These distances are provided in the footnotes of Table 2.

The ISCST model assumes that emissions are totally inert. That is, there are no chemical reactions involving the emissions that occur between the source and receptor. In addition, the modeling options selected for this project are based on the assumption that pollutant deposition, where emissions can fall-out or deposit on the ground or other surfaces, does not occur. These assumptions keep the total mass of facility-specific Perc, MeCl, and TCE emissions constant, which implies a linear relationship between the magnitude of the brake cleaner emissions and the associated concentration at each receptor.

Facility-wide Perc, MeCl, and TCE emissions of 1 gram per second was used. This is referred to as a unit emission rate, which produces corresponding unit concentrations at all modeled receptors. Coupled with the use of a unit emission rate, the linear relationship between emissions released at the source and the directly related

concentrations at receptors surrounding the source allows the effects of multiple facility emission magnitudes to be determined directly. This is done by multiplying the unit concentration estimated at any receptor (using unit emissions) by the specific emission rate for each scenario. Reporting unit concentration results was determined to be most beneficial because a single set of modeling results can be utilized by your staff to estimate the effects of multiple emission-rate scenarios. Thus, your staff must adjust all the concentration estimates reported in this document using facility-specific emissions scenarios in the following manner:

$$\begin{pmatrix} Unit \\ Concentration \end{pmatrix} \times \begin{pmatrix} Scenario \\ Emission \\ Rate \end{pmatrix} = \begin{pmatrix} Scenario \\ Concentration \end{pmatrix} \quad (1)$$

There are a number of plausible routes through which emissions can exit a facility. Site visits and surveys indicate that AMR facilities can have a variety of different ventilation systems, including forced-air systems, passive vents, and fans as well as open doors and windows. However, it is assumed that service bay doors are the overwhelming avenues by which Perc, MeCl, and TCE emissions mix with outdoor air. There are several reasons for this assumption. Most notable is that service bay doors are usually left open. This practice is due to both the comfortable California climate and the practicality of leaving the doors open to allow entrance and exit of automobiles. Also, doors are typically left open because closed doors give the appearance that the facility is closed. Service bay doors are typically the car-width, roll-up variety and, as such, provide a large exit area once they are opened. With respect to facility design, there is a desire to maximize the number of service bays per facility, and, as such, service bay doors typically account for the greatest surface area along the front and/or back of a facility.

When Perc, MeCl, and TCE emissions immediately leave the facility from the service bay door openings, building-induced wind flow and turbulence patterns affect the dispersion of the emissions as the Perc, MeCl, and TCE mixes with the outside air passing by the structure. The effects on the air flowing immediately around the building are caused by higher pressure at the windward side of the building and lower pressure at the leeward side of the building. The magnitude of these effects is a function of wind speed, building dimensions and building orientation.

Based on the processes described above, the facilities were modeled as ISCST3 volume sources using the facility dimensions provided by your staff. Minor adjustments were made to the facility dimensions that were provided in order to adhere to the input requirements of the model. That is, the ISCST3 model is designed to simulate the

dispersion of volume source emissions using volume sources having a square base (i.e., equal length and width). As a result, rectangular buildings, like most of the facilities modeled, are simulated as a series of adjacent volume sources, each having a square foot print. Only two of the facilities modeled are simulated using one volume source (facilities A-28 and O). In addition, the ISCST3 model simulates volume sources as virtual point sources. The details of this methodology are provided in the ISC3 documentation and require three basic input parameters: an initial lateral dimension (sigma x), an initial vertical dimension (sigma y), and the effective release height. The sigma inputs are based on the height of the volume source and the length of each side of each square volume source. To be consistent with initial modeling analyses, the effective emission plume release height is assumed to be half of the building height. Table 3 provides the ISCST3 volume source input parameters used.

Due to the assumptions made about the reactivity and deposition of emissions (i.e., none of either), concentrations attributable to each facility are assumed to be dependent solely on the dispersion of facility emissions by the effects of meteorological parameters. The terrain is assumed to be urban, and, as such, urban dispersion coefficients are applied. It should be noted that this analysis does not account for regional, background concentrations or overlapping plumes of Perc, MeCl, and TCE from other sources that could impact any of the receptors modeled.

Description of Meteorological Data Used

At a fixed geographical location, measured meteorological parameters are expected to fall within historical ranges and to follow a regular, annual pattern with some year-to-year variability. As a result of this consistency, meteorological data that are collected using EPA approved procedures at a specific location can be used in modeling analyses to represent meteorological conditions that are likely to be experienced at the same location in the future. It is also acceptable to utilize off-site meteorological data that are representative of the conditions at the site of analysis (where representativeness is based on specific EPA guidelines).

Site-specific meteorological data are not available for any of the specific AMR facilities. Therefore, representative, off-site meteorological data were used. Also, since a few of the thirteen facilities are located in the same general geographical area, some of the thirteen facilities are represented by the same meteorological data. As a result, modeling for the thirteen facilities utilizes ten different off-site meteorological data collection sites, each of which are representative of the meteorological conditions experienced at one or more facilities. To account for year-to-year variability in meteorological conditions experienced in a region, multiple years of meteorological data were used, where available. In total, forty-five meteorological data sets were used,

comprised of one to six years of data per each of the ten meteorological sites. Only one year of meteorological data were available for facility U while three to six years of data were used for the remaining facilities.

Table 4 lists the representative meteorological data that were used for each of the thirteen specific facilities. Each generic facility was modeled using all of the specific facility meteorological data sets (i.e., all forty-five meteorological data sets). This was done to broadly assess the level of pollutant concentrations that could be associated with different sizes of service facilities located in the different regions around the state that are represented by the ten different meteorological data collection sites. In addition to using all of the specific facility meteorological data, each generic facility was modeled with default meteorological data (i.e., default meteorological data from the SCREEN model). Three default data sets were used, corresponding to wind directions of 0, 45, and 90 degrees- where zero degrees corresponds to the radial parallel to the longest side of each facility and would yield the highest modeled concentrations.

Method for Determination of Hourly Concentrations

One purpose of this analysis is to determine the maximum hourly concentration that might be experienced in the area surrounding an AMR facility. Using the ISCST3 model this is determined with facility-specific inputs such as the facility emissions rate, the hourly operating schedule, and the range of observed meteorological conditions that have historically occurred during each facility's hours of operation. As mentioned earlier, this analysis assumes the facility emission rate to be 1 gram/second (unit emission rate).

All of the facilities modeled in this project operate on a consistent weekly schedule, comprised of a combination of the hour-of-day that a facility is open (i.e., 12AM-12PM) per each day-of-week (i.e., Monday-Sunday). All of the schedules were similar in that each AMR facility operates on a fixed weekday operating schedule (e.g., 9AM-5PM, Monday through Friday) where the weekend hours fall within the scheduled weekday hours (e.g., 10AM-2PM, Saturday).

An important concept in selecting proper meteorological data inputs for worst-case modeling analyses is that meteorological conditions measured on Saturday at 9AM during year 'X' could occur some other year on any day of the week at 9AM. Thus, if an AMR facility is open for business every Saturday at 9AM, then all meteorological conditions historically experienced during that hour of the day, not day of the week, must be considered to estimate the maximum hourly concentration. With this concept in mind, each annual, 24-hour-per-day meteorological data set can be considered to consist of 24 separate data sets (i.e., one per hour of the day, military time). Each of

these 24 fixed-hour data sets represents the range of meteorological conditions that have occurred during the same hour of the day for the entire year.
Hourly concentrations were estimated by the ISCST3 model using all of the meteorological conditions that were measured during any hour-of-day that is specified in the operating schedules provided by your staff, irrespective of the day of the week. Since all of the facilities have weekend hours of operation that are a subset of the weekday hours of operation, meteorological data coincident with the Monday through Friday operating hours-of-day were used. For example, a facility might operate Monday through Friday from 9AM to 5PM and on Saturday from 9AM to 2PM (45 hours per week). For this facility, hourly concentrations were estimated by the ISCST3 using meteorological conditions measured any day of the year from 9AM to 5PM (56 hours per week, 52 weeks per year) for all the years of meteorological data available.

Method for Determination of Annual Concentrations

Another purpose of this analysis is to determine the maximum annual concentration that might be experienced in the area surrounding a facility. The ISCST model calculates long-term, annual concentrations by averaging all the hourly concentrations determined at each receptor over the year represented by the meteorological data input file. This includes concentrations calculated when the facility is not operating (i.e., null hourly concentrations). Thus, the model averages all of the hourly concentration estimates described in the previous section (Determination of Hourly Concentrations) over all hours of the year. For example, a facility that operates Monday through Friday from 9AM to 5PM and on Saturday from 9AM to 2PM is open 45 hours per week. For this facility, 2340 hourly average concentrations per receptor should be considered in calculating the average concentration per non leap year (45 hours-per-week, 52 weeks per year). However, to account for all possible hourly meteorological conditions associated with each hour of facility operation, more hourly concentrations are calculated than correspond to each facility's operating schedule (described in the previous paragraph). That is, using the above example facility, 56 hours per week are modeled rather than 45 hours per week. This results in 9 additional hourly concentrations per week, which are used in calculating the annual average. Thus, the annual average concentrations determined by the model are overestimated. To alleviate overestimation of the annual average concentration estimates, the annual average concentrations calculated by the model were adjusted using a factor of scheduled hours per week over the modeled hours per week. For the example facility used above this reduction factor is 0.804, which is equal to 45 operating hours divided by 56 modeled hours. This adjustment method assumes that the 9 additional concentrations per week fall within the weekly average concentrations associated with the specific 45 hour-per-week operating schedule. Table 5 provides the annual

adjustment factors used for each facility. All of the annual concentration estimates provided in this memo have already been adjusted by these factors.

Modeling Results for Specific Facilities

Grid-Based Receptor Network Results

For each hour of meteorological data used, hourly concentrations specific to a facility's emissions were estimated at each receptor in a gridded network surrounding each of the specific facilities. The utilized receptor networks are described in Table 2. Receptors representing discrete, off-site residences or businesses that might be located in-between the equally spaced, gridded receptors were modeled separately (these results are described in the following section). As described in the previous sections and in Table 4, hourly meteorological conditions from 1 to 6 annual meteorological data sets were used per facility.

For each facility and for each year of meteorological data used, the maximum hourly and maximum annual concentrations were determined out of all of the hourly and annual concentrations estimated to occur at any of the receptors in the gridded receptor network. Thus, 1 to 6 maximum hourly concentrations and 1 to 6 maximum annual concentrations were determined per site (i.e., one maximum hourly and one maximum annual concentration per year of meteorological data). Tables 6A and 6B summarize the high, average, and low statistics for the 1 to 6 maximum annual concentrations and 1 to 6 maximum hourly concentrations, respectively, determined for each site. For example, if five years of meteorological data were available for a facility, modeling might result in maximum, annual-average concentration estimates of 10, 12, 14, 16 and 18 micrograms per cubic meter. In this case, the high would be 18, the low would be 10, and the average would be 14. Tables 6A and 6B also present the range of distance and direction at which the maximum values occur, since the maximum concentrations could occur at different receptors, depending on the corresponding meteorological conditions that produced each maximum. It should be noted again that facility emissions were limited to each facility's hours of operation (Table 1) and modeling was limited to distances greater than 32 meters from the centroid of each source.

Discrete Receptor Results (Nearest Residence/Business Off-Site Receptor

The locations of the nearest business receptor (NBR), nearest residential receptor (NRR), maximum exposed individual worker (MEIW), and maximum exposed individual resident (MEIR) were determined by your staff. Concentrations at these locations were modeled separately as discrete receptors (i.e., stand-alone points on a map). If the distance from the source centroid to the discrete NBR, NRR, MEIW, or MEIR receptor

was determined to be closer than 32 meters, the concentration at 32 meters in the equivalent direction is reported in lieu of the concentration estimated at the discrete business or residential receptor. This was done to stay consistent with the 32-meter, minimum-modeled distance implemented for the receptor network modeling of specific facilities (covered in the previous section). In order to produce these supplemental data points, concentrations were calculated for a polar network of receptors. This polar network consists of 60 receptors where each receptor is spaced 6 degrees apart and located 32 meters from the source centroid.

Your staff determined the locations of the NBR and NRR during site visits. These receptors represent the nearest business and residence to each of the facilities. At each receptor, a maximum hourly concentration and a maximum annual concentration was calculated using each of the one to six years of meteorological data associated with each specific facility (Table 4). The high, low, and average of these one to six values for the NBR and NRR are provided in Tables 7A and 7B.

The locations of potential MEIW and MEIR receptors were determined by your staff using modeling results for the gridded receptor networks, described in the previous section and identified in Table 2. To estimate the location of potential MEIW and MEIR receptors, your staff utilized plots of modeled concentrations overlaid onto street maps as well as sketches of the residences and businesses in the region surrounding each facility. The sketches were made during site visits. Concentrations at all of the potential MEIW and MEIR locations were modeled as discrete receptors. The business receptor having the highest modeled concentration among all of the identified business receptors delineates it as the maximum exposed individual worker (MEIW). Similarly, the residential receptor having the highest modeled concentration among all of the identified residential receptors delineates that receptor as the maximum exposed individual resident (MEIR). Tables 7C and 7D present the facility-specific annual and hourly concentrations, respectively, at the MEIW and MEIR.

Regional Population Impact Results for Specific Facilities

Assessing the impact of source-specific emissions on the population surrounding a source consists of analyzing model-estimated concentrations that have been spatially paired to population estimates. In order to perform this type of analysis, concentration data and population data must be processed to represent the same grid-cell in a gridded network of areas surrounding a facility in one of the following four ways:

1. No processing is required if both forms of data have the same spatial resolution and the existing resolution is sufficient for analyses;

2. Concentration data may be processed to match the spatial resolution of the population data;

3. Population data may be processed to match the spatial resolution of the concentration data; or
4. Both the concentration data and population data are processed to another, third spatial resolution.

In this analysis, processing option number four was used. Population data from the California Department of Finance (CDF) was used. Specifically, the utilized CDF data is census tract population data for 1990, projected to 1997 using CDF growth factors. Based on previous analyses, the population data were spatially re-allocated from representing census tract populations surrounding each of the facilities to representing populations in 1-kilometer by 1-kilometer areas (square grid-cells) surrounding each facility. In processing the population data, the centroid of each grid-cell was assigned to be coincident with a coarse network modeling receptor (Table 2).

Perc, MeCl, and TCE unit concentration data from the modeling analyses were processed to match the 1-kilometer by 1-kilometer grid-cell resolution of the population data. The average of the modeled concentrations for receptors spaced 100 meters apart (Table 2) was used as a representative concentration for each of the nine central 1-kilometer by 1-kilometer grid cells surrounding a facility. Otherwise, the modeled concentrations for receptors spaced 1-kilometer apart were used (Table 2). The reason for using an average concentration is that the modeling analyses presented in the previous section shows that high concentration gradients occur within 100 meters from a facility and, lower, more uniform concentrations are expected to occur at distances beyond 100 meters. A potential drawback to averaging concentrations in the central, grid-cell that contains the AMR facility is that it could underestimate near-source population exposure. That is, all of the 100-meter-spaced receptor concentrations in this grid cell have the same weight in determining the average 1-kilometer by 1-kilometer grid cell concentration. Because there are more receptors beyond 100 meters than inside of 100 meters, the average of all of the receptor concentrations in this grid cell is significantly lower than modeled concentrations within 100 meters from the facility. As a result, the average concentrations within the center 1-kilometer by 1-kilometer grid cell underestimates exposure to Perc, MeCl, or TCE for the population that might be located coincident with high concentration gradients (i.e., generally located within 100 meters from an AMR facility). To account for this, the maximum-modeled concentration should be considered as an upper bound of exposure within the central grid cell.

After concentration and population data are processed to represent grid-cell areas in the same grid system, concentration thresholds are used to stratify the matched population/km^2 and concentration (ug/m^3) data values. Tables 8A through 8M present the cumulative population exposure for the 31-kilometer by 31-kilometer area surrounding each specific facility. These tables show the number of people estimated to be exposed to a specific annual concentration up to the maximum concentration provided in Tables 6 and 7, exclusively from each facility and based on a unit emission rate. For example, Table 8A represents cumulative population exposure for facility A-07, which was modeled using Oakland meteorological data (see Table 4). Table 8A shows that unit emissions from facility A-07 that are under the influence of Oakland 1960 meteorological conditions cause up to 132,661 people to be exposed to Perc, MeCl, and TCE concentrations that can range between 0.09 and 113.00 micrograms per cubic meter. The maximum concentration is considered to account for the effects of averaging 100-meter-spaced receptor concentrations over areas expected to experience a high concentration gradient (this is discussed in the paragraph above). Each table provides an average for the multiple years of data in the last column.

Modeling Results for Generic Facilities

Descriptions of generic facilities are found in Table 1B and in Table 3. Tables 9A and 9B summarize the generic facility modeling results. Appendix A contains more detailed tables of the maximum concentration per indicated distance for each default meteorological condition and specific facility meteorological site. Summary statistics of maximum values per distance (average, high, and low) are tabulated in the last three columns of Appendix A tables, where the summary values used in Tables 9A and 9B are indicated with boxed borders.

Each generic facility was modeled using meteorological data for all 10 sites that were used in specific facility modeling (Table 4). For modeling with these 45 meteorological data sets, a 360-degree polar receptor grid is utilized where angular distances of 6 degrees separate each radial. Each radial has receptors located between 20 meters and 1000 meters from the source centroid.

As indicated in the first three columns in each of the tables in Appendix A, each table contains hourly or annual modeling results for one of the generic facilities at specified distances. All distances are from the facility center, except for default meteorology (DFLT_00, DFLT_45, and DFLT_90), which is discussed in the paragraph below. Each record, or line, in each of the tables in Appendix A presents a single hourly or annual concentration for each of the ten meteorological data sets (BUR, CND, FAT, LAX, MCC, MHR, OAK, RED, SAC, and STN071) estimated to occur at the specified distance from the facility centroid. In the last three columns of each line the high, low, and average of

these ten values is provided. For example, one model run was made for facility G-03 per year of Oakland (OAK) meteorological data (1960, 1961, 1962, 1963, and 1964). Each of these five model runs resulted in one hourly maximum and one annual maximum concentration per distance from the source centroid. Among the five maximum hourly concentrations modeled for facility G-03 using the five different years of Oakland meteorological data, the overall maximum hourly value is 1716 ug/m^3 and occurs 20 meters from the center of the facility using 1964 OAK data. Similarly the maximum annual value is 47 ug/m^3, which occurs 30 meters from the center of the facility using 1962 OAK data. These two concentration values are underlined in the Appendix A tables (without a reference to the associated year of meteorological data). This same process was performed for the remaining 9 meteorological sites, resulting in 10 overall maximum hourly and 10 overall maximum annual values per generic facility and per distance. Tables 9A and 9B provide the 'high', 'low', and 'average' of the 10 overall maximum hourly (i.e., any distance) and 10 overall maximum annual values for each generic facility. These values are found boxed in the Appendix tables as well. Because generic facility modeling included concentration estimates down to 20 meters from the facility centroid, it should be noted that none of the maximum concentrations for any facility, distance, or met year were found to fall within the building footprint.

In applying the 45 meteorological data sets to the generic facilities, each generic facility was oriented with the building length along the East-West direction (i.e., x-axis). Thus, concentrations could be higher in situations where the length of the building, as modeled, is not oriented parallel with the prevailing wind direction for each meteorological data set. This is the orientation known to result in maximum concentrations. To gain some understanding as to the variability that might occur from building orientation effects, default meteorological conditions were applied to the generic facilities using three building length orientations: parallel to the wind direction (DFLT_00); 45 degrees to the wind (DFLT_45); and perpendicular to the wind direction (DFLT_90). Maximum concentrations were found to vary by ten percent for facility G-01, fifteen percent for facility G-02, and forty percent for facility G-03. The range in variability is dependent upon the facility dimensions.

In closing, it should be noted that all concentrations presented in this memo are concentration estimates above background concentrations. Also, the presented analyses give no consideration to background Perc, MeCl, and TCE concentrations or overlapping plumes of these substances from multiple nearby sources simultaneously utilizing Perc, MeCl, and TCE-based products. The overlapping plume case is plausible with specific facilities A-7 and A-8, for example.

Enclosures

TABLES

TABLE 1. Description of Automotive Maintenance and Repair Facilities.

A. Facility Locations.

ID	General Location	UTM Zone	UTM East (m)	UTM North (m)
A-07	Oakland	10	565380	4186595
A-08	Oakland	10	565363	4186618
A-09	Berkeley	10	562308	4191508
A-28	Sacramento	10	636751	4276869
A-52	Marina Del Rey	11	366347	3761855
A-83	Redding	10	553940	4491121
A-86	Fresno	10	786709	4079569
A-92	Fresno	10	788131	4075093
I	Sacramento	10	636216	4268553
O	Walnut Creek	10	582393	4197375
P	Sacramento	10	642904	4267713
T	Glendale	11	384374	3776603
U	Garden Grove	11	414841	3736229

B. Dimensions and Operating Parameters.

ID	L (m)	W (m)	H (m)	Number of Hrs/Wk	Hours Of Operation	Days of Operation
A-07	30.5	10.7	4.6	58	8.0a- 6.0p 8.0a- 4.0p	M-F Sat
A-08	22.9	9.1	4.6	59	8.0a- 6.0p 8.0a- 5.0p	M-F Sat
A-09	21.3	13.7	7.6	59	8.0a- 6.0p 8.0a- 5.0p	M-F Sat
A-28	15.2	15.2	9.1	122.5	5.0a-10.5p	M-Sun
A-52	15.2	7.6	4.6	51	8.0a- 5.0p 8.0a- 2.0p	M-F Sat
A-83	24.4	9.1	6.1	53	8.0a- 5.0p 8.0a- 4.0p	M-F Sat
A-86	53.3	33.5	10.0	60	7.0a- 6.0p 9.0a- 2.0p	M-F Sat
A-92	15.2	7.6	5.2	47	7.5a- 4.0p 7.5a-12.0p	M-F Sat
I	62.8	22.3	9.5	92.5	6.5a- 1.0a	M-F
O	18.3	15.2	6.1	45	9.0a- 6.0p	M-F
P	18.3	10.7	6.1	60	8.0a- 6.0p	M-Sat
T	21.3	9.1	6.1	56.5	8.0a- 5.5p 8.0a- 5.0p	M-F Sat
U	18.3	9.1	6.1	60	8.0a- 6.0p	M-Sat
G-01*	12.2	7.6	4.9	57	8.0a- 6.0p 8.0a- 3.0p	M-F Sat
G-02*	21.3	13.7	7.6	57	8.0a- 6.0p 8.0a- 3.0p	M-F Sat
G-03*	62.5	21.3	7.6	57	8.0a- 6.0p 8.0a- 3.0p	M-F Sat

***** G-01, G-02, and G-03 are 'generic' facilities

TABLE 2. ISCST3 Receptor Networks Used for Non-Discrete Receptor Modeling

Facility Type	Grid Name (Type)	Cell Size	Number of Receptors	Location
Specific	COARSE (Cartesian)	1000m X 1000m	31 X 31 = 961	Centered on Source Centroid
Specific	FINE (Cartesian)	100m X 100m	31 X 31 = 961	Centered on Source Centroid
Specific	VFINE (Cartesian)	20m X 20m	26 X 26 = 676	Centered on Source Centroid
Generic	POLAR[a] (Polar)	Variable. Depends on distance from source.	(360/6) X 36 = 2160	Centered on Source Centroid

The polar network consists of 60 radials, spaced 6 degrees apart, having receptors at the following 36 distances (meters): 20, 30, 40, 50, 60, 70, 80, 90, 100, 120, 140, 150, 160, 180, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10000, and 23000.

TABLE 3. ISCST3 Volume Source Input Parameters.

	Facility Parameters MEASURED (Entire Facility)				Facility Parameters USED IN MODELING (Per volume source)				Dispersion Parameters USED IN MODELING (Per volume source)		
ID[a]	L (m)	W (m)	H (m)	Hrs Per Wk	# of L X L Volumes	L (m)	H (m)	Hrs Per Wk	Sigma - Y	Sigma - Z	Release Height[b] (m)
A-07	30.5	10.7	4.6	58	3	10.0	4.6	70	4.7	2.1	2.3
A-08	22.9	9.1	4.6	59	3	8.4	4.6	70	3.9	2.1	2.3
A-09	21.3	13.7	7.6	59	2	12.2	7.6	70	5.7	3.5	3.8
A-28	15.2	15.2	9.1	122.5	1	15.2	9.1	122.5	3.5	4.3	4.5
A-52	15.2	7.6	4.6	51	2	7.6	4.6	63	3.5	2.1	2.3
A-83	24.4	9.1	6.1	53	3	9.1	6.1	63	4.3	2.8	3.0
A-86	53.3	33.5	10.0	60	2	30.0	10.0	77	14.0	4.7	5.0
A-92	15.2	7.6	5.2	47	2	7.6	5.2	63	3.5	2.4	2.6
I	62.8	22.3	9.5	92.5	3	21.3	9.5	133	9.9	4.4	4.7
O	18.3	15.2	6.1	45	1	15.2	6.1	63	3.7	2.8	3.0
P	18.3	10.7	6.1	60	2	9.8	6.1	70	4.5	2.8	3.0
T	21.3	9.1	6.1	56.5	2	9.1	6.1	70	4.2	2.8	3.0
U	18.3	9.1	6.1	60	2	9.1	6.1	70	4.3	2.8	3.0
G-01[a]	12.2	7.6	4.9	57	2	7.0	4.9	70	3.3	2.3	2.5
G-02[a]	21.3	13.7	7.6	57	2	13.0	7.6	70	6.1	3.5	3.8
G-03[a]	62.5	21.3	7.6	57	3	20.0	7.6	70	9.3	3.5	3.8

G-01, G-02, and G-03 are 'generic' facilities

Release height used in modeling is set to half of the building height.

TABLE 4. Meteorological Data Used for Refined Modeling (ISCST3).

Specific Facility ID (13 Facilities)	Meteorological Site Name (10 Sites)	Meteorological Site Abbreviation	Number of Years of Met Data (45 Total)	Meteorological Data Calendar Years Used
A-07, A-08, A09	Oakland	OAK	5	'60-'64
A-28	McClellan AFB	MCC	5	'53-'57
A-52	LAX	LAX	5	'85-'89
A-83	Redding	RED	3	'87-'89
A-86, A-92	Fresno	FAT	5	'85-'89
I	Sac Exec.	SAC	5	'87, '89-'92
O	Concord	CND	6	'91-'96
P	Mather AFB	MHR	5	'53-'57
T	Burbank	BUR	5	'58-'62
U	Anaheim	STN07161	1	'81

TABLE 5. Adjustment Factors for Annual Average Concentrations.

ID	Specific Hours Per Week	Modeled Hours Per Week	Annual Modeled Concentration Adjustment Factor
A-07	58	70	0.829
A-08	59	70	0.843
A-09	59	70	0.843
A-28	122.5	122.5	1.000
A-52	51	63	0.810
A-83	53	63	0.841
A-86	60	77	0.779
A-92	47	63	0.746
I	92.5	133	0.695
O	45	63	0.714
P	60	70	0.857
T	56.5	70	0.807
U	60	70	0.857
G-01[a]	57	70	0.814
G-02[a]	57	70	0.814
G-03[a]	57	70	0.814

a. G-01, G-02, and G-03 are 'generic' facilities

TABLE 6. Specific Facility Impacts on Grid-Based Receptors Per 1 g/s Emission Rate.

A. Maximum **ANNUAL** Perc, MeCl, and TCE Concentrations (ug/m^3).

Facility ID	Site and Years of Met. Data *One max. annual concentration generated per year of met data.*	Direction Range[a] (deg.)	Distance Range (m)	High[b] Max. Conc.	Low[b] Max. Conc.	Avg.[b] Max. Conc.
A-07	Oakland '60-'64	108-108	32-32	120	107	113
A-08	Oakland '60-'64	108-108	32-32	155	140	147
A-09	Oakland '60-'64	108-108	32-32	124	110	118
A-28	McClellan AFB '53-'57	342-342	32-32	322	209	261
A-52	LAX '85-'89	72-108	32-32	104	92	100
A-83	Redding '87-'89	162-162	32-32	100	91	95
A-86	Fresno '85-'89	101-135	42-51	40	34	37
A-92	Fresno '85-'89	108-108	32-32	102	80	88
I	Sac Exec. '87, '89-'92	349- 11	51-51	83	74	79
O	Concord '91-'96	162-162	32-32	97	82	89
P	Mather AFB '53-'57	342- 72	32-32	105	78	91
T	Burbank '58-'62	288-342	32-32	217	108	152
U	Anaheim '81	72-72	32-32	337	337	337

Direction is measured clockwise, from North.

For each facility, one maximum concentration and associated location was determined per year of meteorological data used for modeling (during hours of operation). For example, facility A-7 has five years of Oakland meteorological data (Table 4; 1960,1961,1962,1963, and 1964). Thus, five maximum annual estimates at five locations resulted for facility A-7. The tabulated high, low, and average concentrations are the high, low, and average statistics based on these concentrations. Therefor, if the concentrations were 1, 2, 3, 4, and 5, then the low would be 1, the average would be 3 and the high would be 5 (ug/m^3). The distance and direction ranges indicate the variability in location for the estimated maximum concentrations.

B. Maximum **HOURLY** Perc, MeCl, and TCE Concentrations (ug/m^3).

Facility ID	Site and Years of Met. Data *One maximum hourly concentration is calculated per year of met data.*	Direction Range[a] (deg.)	Distance Range (m)	High[b] Max. Conc.	Low[b] Max. Conc.	Avg.[b] Max. Conc.
A-07	Oakland '60-'64	198- 33	32-42	5027	3799	4614
A-08	Oakland '60-'64	252-288	32-32	5597	4269	5067
A-09	Oakland '60-'64	252-108	32-32	3442	2703	3062
A-28	McClellan AFB '53-'57	288- 18	32-42	5370	3977	5034
A-52	LAX '85-'89	315-342	32-42	5096	4208	4600
A-83	Redding '87-'89	162-198	32-32	6364	4241	5316
A-86	Fresno '85-'89	101-301	51-58	1594	1077	1403
A-92	Fresno '85-'89	135-315	32-42	5990	4383	5015
I	Sac Exec. '87, '89-'92	135-348	42-51	2231	1489	1995
O	Concord '91-'96	342-108	32-32	7335	7323	7329
P	Mather AFB '53-'57	252- 72	32-32	3289	2548	2952
T	Burbank '58-'62	288-108	32-32	5841	5835	5837
U	Anaheim '81	108-108	32-32	5554	5554	5554

a, b. See Table 6A footnote, above. The same method was used here, but for hourly data.

TABLE 7. Facility Impacts on Business/ Residence Receptors (1 g/s Emission Rate).

A. **NEAREST** Business/Residential Receptor Maximum **ANNUAL** Concentrations (ug/m^3).

Type	ID	X (m)	Y (m)	Distance[a] (m)	Direction[b] (deg.)	HIGH[c]	LOW[c]	AVG[c]
Bus.	A-07	-5	20	32 *	348	47	33	41
	A-08	10	-10	32 *	132	114	87	98
(NBR)	A-09	0	10	32 *	0	36	27	32
	A-28	-80	-90	120	222	4	2	3
	A-52	-30	-10	32	252	31	24	29
	A-83	-30	0	32 *	270	23	23	23
	A-86	60	-160	171	159	4	3	3
	A-92	-30	10	32	288	78	70	73
	I	30	90	95	18	33	27	30
	O	0	-26	32 *	180	89	76	82
	P	0	-31	32 *	180	51	27	38
	T	0	-30	32 *	180	20	13	17
	U	91	0	91	90	22	22	22
Res.	A-07	10	0	32 *	90	124	107	115
	A-08	-40	10	41	284	15	7	12
(NRR)	A-09	30	0	32 *	90	145	126	134
	A-28	-90	-10	91	264	6	2	4
	A-52	-35	30	46	311	32	26	28
	A-83	0	-35	35	180	78	72	75
	A-86	250	250	354	45	1	0	1
	A-92	-50	-50	71	225	6	5	5
	I	-130	70	148	298	6	5	6
	O	-100	0	100	270	2	1	1
	P	-35	0	35	270	10	5	7
	T	0	6	32 *	0	190	96	135
	U	0	6	32 *	0	139	139	139

NOTES:

The symbol **"*"** indicates the receptor is closer than 32 meters from the source centroid. In this case, the concentration is replaced with modeling results for the estimated concentration at 32 meters in the equivalent direction from the source (i.e., +/- 3 degrees).

Direction is measured clockwise, from North.

For each facility and receptor, one maximum concentration was modeled per year of meteorological data indicated in Table 4 (during hours of operation). For example, facility A-7 has five years of Oakland meteorological data (1960,1961,1962,1963, and 1964). Thus, five maximum estimates were made for each A-7 receptor. The tabulated high, low, and average concentrations are the high, low, and average statistics based on these concentrations. Therefor, if the concentrations were 1, 2, 3, 4, and 5, then the low would be 1, the average would be 3 and the high would be 5 (ug/m^3).

TABLE 7 (continued).

B. **NEAREST** Business/Residential Receptor Maximum **HOURLY** Concentrations (ug/m^3).

Type	ID	X (m)	Y (m)	Distance[a] (m)		Direction[b] (deg.)	HIGH[c]	LOW[c]	AVG[c]
Bus.	A-07	-5	20	32	*	348	3818	2724	3021
	A-08	10	-10	32	*	132	5430	3356	4485
(NBR)	A-09	0	10	32	*	0	2333	1752	1937
	A-28	-80	-90	120		222	1404	733	976
	A-52	-30	-10	32		252	2496	1914	2311
	A-83	-30	0	32	*	270	2966	2095	2654
	A-86	60	-160	171		159	439	253	345
	A-92	-30	10	32		288	5903	4006	4467
	I	30	90	95		18	960	721	771
	O	0	-26	32	*	180	7258	6540	7085
	P	0	-31	32	*	180	2261	1462	1862
	T	0	-30	32	*	180	3148	2948	3059
	U	91	0	91		90	2399	2399	2399
Res.	A-07	10	0	32	*	90	3399	2200	2615
	A-08	-40	10	41		284	4340	1836	3605
(NRR)	A-09	30	0	32	*	90	3437	2318	2712
	A-28	-90	-10	91		264	1351	1202	1302
	A-52	-35	30	46		311	4098	3073	3720
	A-83	0	-35	35		180	3972	3742	3865
	A-86	250	250	354		45	155	60	121
	A-92	-50	-50	71		225	1265	1263	1264
	I	-130	70	148		298	746	503	592
	O	-100	0	100		270	2139	1344	1906
	P	-35	0	35		270	2652	2360	2537
	T	0	6	32	*	0	3148	3026	3112
	U	0	6	32	*	0	3107	3107	3107

NOTES:

The symbol **"*"** indicates the receptor is closer than 32 meters from the source centroid. In this case, the concentration is replaced with modeling results for the estimated concentration at 32 meters in the equivalent direction from the source (i.e., +/- 3 degrees).

Direction is measured clockwise, from North.

For each facility and receptor, one maximum concentration was modeled per year of meteorological data indicated in Table 4 (during hours of operation). For example, facility A-7 has five years of Oakland meteorological data (1960,1961,1962,1963, and 1964). Thus, five maximum estimates were made for each A-7 receptor. The tabulated high, low, and average concentrations are the high, low, and average statistics based on these concentrations. Therefor, if the concentrations were 1, 2, 3, 4, and 5, then the low would be 1, the average would be 3 and the high would be 5 (ug/m^3).

TABLE 7 (continued).

C. **MAXIMUM** Exposed Resident and Off-Site Worker **ANNUAL** Concentrations (ug/m^3).

Type	ID	X (m)	Y (m)	Distance[a] (m)	Direction[b] (deg.)	HIGH[c]	LOW[c]	AVG[c]
Bus.	A-07	50	10	51	79	51	41	47
	A-08	30	30	42	45	32	29	30
(MEIW)	A-09	-10	30	32	342	30	20	27
	A-28	0	130	130	0	43	23	32
	A-52	30	-10	32	108	104	81	96
	A-83	-10	30	32	342	73	72	72
	A-86	-160	50	168	287	4	4	4
	A-92	-30	10	32	288	78	70	73
	I	30	90	95	18	33	27	30
	O	0	-20	32 *	180	89	76	82
	P	0	30	32 *	0	90	50	70
	T	0	30	32 *	0	190	96	135
	U	-10	30	32	342	124	124	124
Res.	A-07	30	-10	32	108	124	111	117
	A-08	0	30	32 *	0	45	38	40
(MEIR)	A-09	30	-10	32	108	126	112	120
	A-28	10	-90	91	174	28	17	20
	A-52	-40	30	50	307	28	23	25
	A-83	10	-50	51	169	49	45	46
	A-86	150	-50	158	108	7	6	6
	A-92	-50	-30	58	239	11	8	9
	I	70	140	157	27	14	12	13
	O	-100	0	100	270	2	1	1
	P	-30	-30	42	225	14	5	8
	T	30	110	114	15	26	13	19
	U	30	10	32	72	337	337	337

NOTES:

The symbol **"*"** indicates the receptor is closer than 32 meters from the source centroid. In this case, the concentration is replaced with modeling results for the estimated concentration at 32 meters in the equivalent direction from the source (i.e., +/- 3 degrees).

Direction is measured clockwise, from North.

For each facility and receptor, one maximum concentration was modeled per year of meteorological data indicated in Table 4 (during hours of operation). For example, facility A-7 has five years of Oakland meteorological data (1960,1961,1962,1963, and 1964). Thus, five maximum estimates were made for each A-7 receptor. The tabulated high, low, and average concentrations are the high, low, and average statistics based on these concentrations. Therefor, if the concentrations were 1, 2, 3, 4, and 5, then the low would be 1, the average would be 3 and the high would be 5 (ug/m^3).

TABLE 7 (continued).

D. **MAXIMUM** Exposed Resident and Off-Site Worker **HOURLY** Concentrations (ug/m^3).

Type	ID	X (m)	Y (m)	Distance[a] (m)	Direction[b] (deg.)	HIGH[c]	LOW[c]	AVG[c]
Bus.	A-07	50	10	51	79	1964	1502	1674
	A-08	30	30	42	45	3176	1780	2203
(MEIW)	A-09	-10	30	32	342	2506	1797	2118
	A-28	0	130	130	0	1229	822	1002
	A-52	30	-10	32	108	2809	2079	2373
	A-83	-10	30	32	342	3550	2837	3142
	A-86	-160	50	168	287	597	389	436
	A-92	-30	10	32	288	5903	4006	4467
	I	30	90	95	18	960	721	771
	O	0	-20	32 *	180	7258	6540	7085
	P	0	30	32 *	0	2180	1630	1950
	T	0	30	32 *	0	3148	3026	3112
	U	-10	30	32	342	3453	3453	3453
Res.	A-07	30	-10	32	108	3196	2331	2732
	A-08	0	30	32 *	0	3076	2639	2911
(MEIR)	A-09	30	-10	32	108	3089	2335	2609
	A-28	10	-90	91	174	2019	1320	1606
	A-52	-40	30	50	307	3630	2525	3283
	A-83	10	-50	51	169	3739	2467	3016
	A-86	150	-50	158	108	425	407	418
	A-92	-50	-30	58	239	1808	1514	1604
	I	70	140	157	27	665	417	483
	O	-100	0	100	270	2139	1344	1906
	P	-30	-30	42	225	2537	1689	2009
	T	30	110	114	15	1166	994	1124
	U	30	10	32	72	4600	4600	4600

NOTES:

The symbol **"*"** indicates the receptor is closer than 32 meters from the source centroid. In this case, the concentration is replaced with modeling results for the estimated concentration at 32 meters in the equivalent direction from the source (i.e., +/- 3 degrees).

Direction is measured clockwise, from North.

For each facility and receptor, one maximum concentration was modeled per year of meteorological data indicated in Table 4 (during hours of operation). For example, facility A-7 has five years of Oakland meteorological data (1960,1961,1962,1963, and 1964). Thus, five maximum estimates were made for each A-7 receptor. The tabulated high, low, and average concentrations are the high, low, and average statistics based on these concentrations. Therefor, if the concentrations were 1, 2, 3, 4, and 5, then the low would be 1, the average would be 3 and the high would be 5 (ug/m^3).

TABLE 8. Specific Facility ANNUAL Population Exposure Estimates.

A. Facility A-07

ug/m³ >=	OAK60	OAK61	OAK62	OAK63	OAK64	AVG
0.000	1,300,824	1,300,824	1,300,824	1,300,824	1,300,824	1,300,824
0.001	593,781	610,692	638,801	610,352	618,981	614,521
0.003	377,141	385,071	401,672	391,357	423,603	395,769
0.004	268,996	281,562	283,035	268,881	312,438	282,982
0.006	192,742	203,315	220,437	216,063	234,450	213,401
0.007	176,510	174,360	181,645	165,209	194,184	178,382
0.009	132,661	143,847	149,503	143,106	142,784	142,380
0.010	112,796	115,642	119,774	119,184	131,794	119,838
0.011	103,975	106,927	105,949	105,949	119,588	108,478
0.013	95,571	90,808	99,529	100,217	95,886	96,402
0.014	87,623	86,550	91,753	78,587	87,623	86,427
0.016	80,258	69,719	87,623	70,114	79,699	77,483
0.017	59,443	61,804	61,804	66,517	67,676	63,449
0.020	56,185	58,546	54,494	63,259	55,002	57,497
0.024	52,133	52,133	52,133	56,185	44,033	51,323
0.031	38,289	42,785	38,289	42,785	38,289	40,087
0.041	29,615	33,907	33,907	33,907	29,615	32,190
0.047	25,101	25,101	25,101	25,101	25,101	25,101
0.054	12,008	12,008	20,702	16,407	20,702	16,365
0.163	4,302	4,302	12,008	4,302	4,302	5,843

B. Facility A-08

ug/m³ >=	OAK60	OAK61	OAK62	OAK63	OAK64	AVG
0.000	1,298,421	1,298,421	1,298,421	1,298,421	1,298,421	1,298,421
0.002	590,998	609,064	642,256	600,990	614,831	611,628
0.003	372,900	377,214	399,569	385,651	420,565	391,180
0.005	261,893	274,300	275,762	261,797	307,484	276,247
0.007	184,887	194,806	212,897	209,257	228,425	206,054
0.008	169,370	166,343	174,693	159,288	187,052	171,349
0.010	126,558	138,071	142,244	138,443	136,695	136,402
0.012	108,318	110,608	115,203	114,991	125,842	114,992
0.013	99,571	102,518	101,459	101,459	114,377	103,877
0.015	91,942	87,863	95,049	96,524	92,286	92,733
0.017	84,017	84,323	87,735	76,691	84,017	83,357
0.019	77,735	68,209	84,017	68,395	76,686	75,008
0.022	58,222	60,385	60,385	65,271	65,342	61,921
0.027	55,503	57,666	53,927	62,552	53,285	56,587
0.030	51,764	51,764	51,764	55,503	43,504	50,860
0.039	38,296	43,057	38,296	43,057	38,296	40,200
0.051	29,753	33,482	33,482	33,482	29,753	31,990
0.059	25,126	25,126	25,126	25,126	25,126	25,126
0.069	11,295	11,295	20,723	15,698	20,723	15,947
0.194	4,211	4,211	11,295	4,211	4,211	5,628

Table 8 (continued)

C. Facility A-09

ug/m³ >=	OAK60	OAK61	OAK62	OAK63	OAK64	AVG
0.000	1,312,711	1,312,711	1,312,711	1,312,711	1,312,711	1,312,711
0.002	461,066	490,388	553,210	496,290	538,802	507,951
0.003	238,173	254,190	260,944	250,042	284,618	257,593
0.005	180,277	185,757	184,326	176,966	204,019	186,269
0.007	141,163	139,784	149,326	149,895	154,487	146,931
0.008	129,661	123,896	131,211	119,883	136,115	128,153
0.010	100,604	107,792	108,405	106,942	108,725	106,494
0.012	88,336	92,591	97,057	94,838	103,117	95,188
0.013	81,759	87,248	87,159	87,159	91,990	87,063
0.015	74,224	78,410	84,116	82,351	74,512	78,723
0.017	70,551	68,201	81,316	55,115	70,551	69,147
0.019	64,602	53,233	66,237	55,034	59,604	59,742
0.022	40,825	45,646	45,646	48,401	52,148	46,533
0.025	36,270	41,091	40,945	41,091	41,992	40,278
0.030	36,043	36,124	36,124	36,270	29,165	34,745
0.039	24,938	25,019	24,938	24,938	24,938	24,954
0.051	18,565	24,038	24,038	24,038	18,565	21,849
0.061	12,930	8,709	12,930	8,709	12,930	11,242
0.067	7,013	7,013	11,234	8,709	11,234	9,041
0.743	2,155	2,155	2,155	2,155	2,155	2,155

D. Facility A-28

ug/m³ >=	MCC53	MCC54	MCC55	MCC56	MCC57	AVG
0.000	853,095	853,095	853,095	853,095	853,095	853,095
0.005	336,956	244,734	258,971	261,167	304,476	281,261
0.010	152,153	130,058	111,712	118,223	153,537	133,137
0.015	101,215	91,732	74,343	85,137	103,752	91,236
0.020	74,472	72,513	60,757	60,643	80,683	69,814
0.025	56,940	60,365	48,257	51,498	60,060	55,424
0.030	51,002	52,680	44,621	43,235	55,228	49,353
0.035	46,583	46,926	38,132	37,554	47,649	43,369
0.040	42,005	42,711	33,432	35,676	44,600	39,685
0.045	33,304	39,721	30,784	30,490	36,312	34,122
0.050	29,854	36,606	29,768	27,816	32,714	31,352
0.055	28,045	30,502	26,357	25,693	29,550	28,029
0.065	27,308	24,391	21,311	20,938	26,277	24,045
0.075	26,644	24,059	16,667	19,865	23,407	22,128
0.090	18,016	19,815	14,885	13,206	21,023	17,389
0.115	15,591	13,124	9,246	11,339	13,018	12,464
0.190	9,246	9,990	7,821	6,655	9,246	8,592
0.245	6,053	7,478	4,887	4,887	7,821	6,225
0.300	3,520	6,053	3,520	3,520	6,655	4,654
0.890	2,246	3,520	2,246	2,246	2,246	2,501

Table 8 (continued)

E. Facility A-52

ug/m³ >=	LAX85	LAX86	LAX87	LAX88	LAX89	AVG
0.000	1,911,577	1,911,577	1,911,577	1,911,577	1,911,577	1,911,577
0.002	1,130,443	1,228,549	1,037,868	1,014,739	1,036,357	1,089,591
0.003	854,499	937,504	765,428	738,152	725,801	804,277
0.005	652,146	743,174	599,519	569,739	579,928	628,901
0.007	532,602	568,336	432,623	437,277	458,270	485,822
0.008	424,140	392,907	319,160	324,663	367,086	365,591
0.010	345,824	261,121	208,983	234,383	283,070	266,676
0.012	267,884	189,198	148,624	166,623	205,039	195,474
0.013	190,073	135,967	115,113	113,764	146,519	140,287
0.015	148,053	119,347	94,304	98,527	118,533	115,753
0.017	128,942	99,260	87,609	92,729	95,507	100,809
0.019	97,016	89,290	73,257	76,942	86,713	84,644
0.022	82,073	74,752	68,307	66,778	72,393	72,861
0.025	73,257	63,594	58,959	64,584	65,565	65,192
0.027	70,515	61,003	47,844	51,106	60,778	58,249
0.030	56,104	46,885	43,994	43,994	47,038	47,603
0.035	37,278	43,035	34,180	33,428	39,926	37,569
0.040	33,428	35,507	27,682	27,682	27,682	30,396
0.050	27,682	18,396	24,941	24,941	24,941	24,180
0.074	13,494	16,516	13,494	13,494	13,494	14,098
0.084	11,614	10,461	5,559	5,559	7,439	8,126
0.178	5,559	2,912	2,912	2,912	5,559	3,971

F. Facility A-83

ug/m³ >=	RED87	RED88	RED89	AVG
0.000	112,941	112,941	112,941	112,941
0.002	89,292	89,242	89,142	89,225
0.003	52,432	52,712	52,779	52,641
0.005	37,020	37,554	37,304	37,293
0.006	30,812	30,816	29,777	30,468
0.008	26,178	24,850	26,095	25,708
0.010	21,145	20,579	22,341	21,355
0.011	19,024	16,358	15,791	17,058
0.013	14,959	14,732	13,303	14,331
0.015	12,290	13,610	11,994	12,631
0.018	11,095	11,483	11,095	11,224
0.019	10,441	10,584	10,584	10,536
0.021	9,238	9,930	9,930	9,699
0.024	8,627	9,238	8,627	8,831
0.031	7,773	7,773	7,773	7,773
0.034	6,208	6,971	7,010	6,730
0.037	5,514	5,636	6,369	5,840
0.041	4,873	4,873	4,873	4,873
0.044	4,148	3,041	2,869	3,353
0.099	2,144	2,144	2,144	2,144
0.126	1,460	1,460	1,460	1,460
0.784	732	732	732	732

Table 8 (continued)

G. Facility A-86

ug/m³ >=	FAT85	FAT86	FAT87	FAT88	FAT89	AVG
0.000	477,274	477,274	477,274	477,274	477,274	477,274
0.002	337,850	357,191	365,419	345,969	360,539	353,394
0.005	189,459	195,914	190,852	193,009	198,355	193,518
0.007	122,495	115,982	113,292	127,364	125,293	120,885
0.009	88,155	90,536	89,186	94,273	93,712	91,172
0.012	69,045	65,932	69,097	71,003	67,033	68,422
0.014	61,387	56,575	51,317	57,462	57,647	56,878
0.016	50,274	42,812	43,953	52,206	51,786	48,206
0.019	42,477	36,961	40,079	45,061	42,363	41,388
0.021	36,262	34,734	32,810	38,542	34,233	35,316
0.023	32,264	32,120	30,583	34,166	30,017	31,830
0.026	27,712	29,380	26,620	31,954	25,851	28,303
0.028	24,594	26,532	25,123	26,688	23,237	25,235
0.030	21,993	25,277	21,267	23,495	21,982	22,803
0.035	19,341	18,784	18,086	18,733	18,733	18,735
0.042	14,427	16,132	16,132	16,132	14,427	15,450
0.068	11,486	11,486	11,486	11,486	11,486	11,486
0.079	8,179	10,025	10,025	10,025	9,826	9,616
0.093	6,519	8,179	6,519	8,365	8,365	7,589
0.110	4,654	4,654	4,654	6,519	6,519	5,400
0.150	3,334	1,473	1,473	1,473	1,473	1,845

H. Facility A-92

ug/m³ >=	FAT85	FAT86	FAT87	FAT88	FAT89	AVG
0.000	480,503	480,503	480,503	480,503	480,503	480,503
0.001	440,557	449,563	444,538	441,142	419,626	439,085
0.003	303,217	322,739	314,524	320,171	298,091	311,748
0.004	215,408	229,536	226,347	243,631	220,907	227,166
0.006	161,621	166,135	164,117	185,768	171,039	169,736
0.007	128,853	126,454	123,923	138,497	121,661	127,878
0.009	104,696	96,909	97,175	97,329	96,405	98,503
0.010	87,407	82,324	74,577	82,633	85,664	82,521
0.012	65,065	62,702	60,778	68,515	74,858	66,384
0.015	51,490	50,656	50,265	57,420	51,468	52,260
0.016	47,845	48,257	46,086	49,518	45,757	47,493
0.018	43,470	44,243	44,612	46,086	43,217	44,326
0.021	28,911	36,404	30,128	34,940	36,658	33,408
0.024	26,364	28,911	26,379	29,584	29,125	28,073
0.028	23,685	21,598	24,277	25,835	23,156	23,710
0.036	19,513	18,656	18,656	18,656	18,656	18,827
0.046	16,571	16,571	16,571	16,571	16,571	16,571
0.061	14,070	14,070	14,070	14,070	14,070	14,070
0.073	7,238	9,135	9,135	11,103	12,173	9,757
0.109	4,648	2,566	2,566	2,566	4,648	3,399

Table 8 (continued)

I. Facility I

ug/m^3 >=	SAC87	SAC89	SAC90	SAC91	SAC92	AVG
0.000	835,067	835,067	835,067	835,067	835,067	835,067
0.003	616,863	583,043	595,798	660,226	593,897	609,965
0.007	407,925	392,503	382,010	389,060	337,401	381,780
0.010	255,630	260,975	259,979	264,887	243,465	256,987
0.014	190,772	189,272	188,723	195,665	162,879	185,462
0.017	147,049	148,575	140,133	145,184	128,760	141,940
0.021	111,221	114,656	107,673	104,389	93,765	106,341
0.024	92,233	95,042	90,766	91,046	79,814	89,780
0.028	80,336	86,746	74,401	73,027	64,357	75,773
0.031	70,194	67,152	61,781	66,766	58,729	64,924
0.035	61,109	53,007	54,003	59,492	46,362	54,795
0.042	48,541	43,005	45,882	45,436	42,865	45,146
0.049	38,818	38,765	39,701	32,807	34,241	36,866
0.052	36,030	37,839	34,785	31,187	33,037	34,576
0.056	35,420	36,030	30,311	28,527	30,377	32,133
0.063	26,718	30,316	25,514	25,514	24,090	26,430
0.076	24,090	24,090	22,656	20,641	20,641	22,424
0.097	16,129	18,144	18,560	18,210	18,560	17,921
0.132	14,071	10,543	14,330	10,209	10,233	11,877
0.153	6,681	8,744	8,744	4,699	6,681	7,110
0.226	4,699	3,066	3,066	3,066	3,066	3,393
1.685	1,408	1,408	1,408	1,408	1,408	1,408

Table 8 (continued)

J. Facility O

ug/m³ >=	CND91	CND92	CND93	CND94	CND95	CND96	AVG
0.000	603,481	603,481	603,481	603,481	603,481	603,481	603,481
0.002	508,112	540,788	554,104	544,946	548,281	455,248	525,247
0.004	365,435	383,659	433,291	398,513	378,358	372,090	388,558
0.006	292,785	310,334	320,173	320,625	299,405	297,826	306,858
0.009	228,054	235,912	258,210	250,769	231,755	241,739	241,073
0.011	188,290	202,250	215,623	209,214	195,479	195,075	200,989
0.013	149,185	165,981	174,375	176,230	163,935	157,113	164,470
0.015	122,756	132,596	141,095	142,698	135,401	124,679	133,204
0.017	102,917	108,755	116,198	124,379	115,768	108,810	112,805
0.019	81,179	89,284	96,943	110,316	99,212	91,766	94,783
0.021	72,324	79,092	79,257	91,625	78,914	74,137	79,225
0.024	59,163	65,619	65,330	72,069	71,828	64,869	66,480
0.026	49,965	53,890	61,623	62,927	56,756	52,949	56,352
0.028	46,466	48,922	45,717	57,013	48,922	46,521	48,927
0.030	44,601	37,355	44,323	49,977	44,618	44,200	44,179
0.032	37,397	34,965	40,283	41,412	38,565	33,361	37,664
0.034	31,722	33,778	37,662	36,192	31,403	30,051	33,468
0.039	24,115	27,615	31,369	31,689	28,782	23,657	27,871
0.043	20,369	17,453	23,501	23,659	19,845	22,015	21,140
0.054	15,428	15,379	17,453	17,453	17,453	15,428	16,432
0.064	13,354	11,717	11,717	15,428	13,354	13,354	13,154
0.084	7,553	7,553	9,644	9,626	7,483	7,553	8,235
0.099	5,410	5,410	7,553	5,410	5,410	5,410	5,767
0.122	3,468	3,468	3,468	5,410	3,468	3,468	3,792
0.827	1,930	1,930	1,930	1,930	1,930	1,930	1,930

K. Facility P

ug/m³ >=	MHR53	MHR54	MHR55	MHR56	MHR57	AVG
0.000	850,528	850,528	850,528	850,528	850,528	850,528
0.002	336,898	369,410	391,227	399,119	386,840	376,699
0.003	122,354	145,148	147,265	180,129	185,226	156,024
0.005	70,818	82,345	81,595	94,854	111,053	88,133
0.007	54,021	58,867	61,688	62,010	68,499	61,017
0.009	44,268	47,769	47,770	49,509	53,389	48,541
0.010	41,246	41,139	40,973	41,324	41,643	41,265
0.012	31,912	35,589	34,948	37,060	37,633	35,428
0.014	30,062	32,358	33,715	33,200	32,912	32,449
0.015	26,538	29,676	27,840	27,586	31,519	28,632
0.019	23,174	26,333	24,904	26,112	28,926	25,890
0.021	21,735	23,951	23,465	23,432	27,197	23,956
0.024	19,615	22,489	20,989	20,956	24,546	21,719
0.033	15,310	13,848	13,848	18,930	18,930	16,173
0.045	12,060	12,060	12,060	12,060	14,839	12,616
0.070	9,053	10,827	9,053	5,517	5,517	7,993
0.747	2,369	2,369	2,369	2,369	2,369	2,369

Table 8 (continued)

L. Facility T

ug/m³ >=	BUR58	BUR59	BUR60	BUR61	BUR62	AVG
0.000	3,024,643	3,024,643	3,024,643	3,024,643	3,024,643	3,024,643
0.003	739,728	942,735	632,531	511,097	475,138	660,246
0.006	347,090	418,212	292,115	224,567	225,716	301,540
0.010	229,804	266,095	192,544	151,565	153,430	198,688
0.013	176,395	183,100	157,425	120,645	118,033	151,120
0.016	144,802	159,209	118,996	89,994	99,606	122,521
0.019	128,284	138,963	103,654	81,619	86,028	107,710
0.023	103,748	104,316	75,682	64,699	67,048	83,099
0.026	87,841	94,759	71,483	60,264	63,812	75,632
0.029	77,493	91,123	67,048	54,321	60,086	70,014
0.036	71,483	71,483	53,982	47,020	44,547	57,703
0.039	60,264	67,048	47,783	34,745	34,745	48,917
0.045	48,273	54,555	44,547	28,894	32,255	41,705
0.052	44,547	48,612	28,894	20,072	26,404	33,706
0.065	34,745	34,745	20,072	16,128	16,128	24,364
0.090	16,128	20,072	17,387	7,303	13,443	14,867
0.252	7,303	7,303	7,303	3,802	7,303	6,603

Table 8 (continued)

M. Facility U

ug/m³ >=	STN0718	AVG
0.000	1,961,694	1,961,694
0.003	1,219,573	1,219,573
0.007	805,311	805,311
0.010	543,541	543,541
0.014	383,889	383,889
0.017	260,905	260,905
0.021	196,552	196,552
0.024	163,914	163,914
0.027	136,273	136,273
0.031	114,592	114,592
0.034	105,462	105,462
0.038	81,959	81,959
0.041	79,952	79,952
0.045	70,117	70,117
0.048	64,952	64,952
0.051	63,818	63,818
0.058	57,422	57,422
0.062	54,507	54,507
0.065	49,921	49,921
0.069	43,111	43,111
0.086	39,043	39,043
0.089	35,161	35,161
0.093	31,650	31,650
0.103	23,210	23,210
0.106	19,585	19,585
0.209	15,611	15,611
0.237	10,965	10,965
0.254	7,225	7,225
1.714	3,683	3,683

TABLE 9. Generic Facility Concentration Estimates Per 1 g/s Emission Rate.

A. Maximum **ANNUAL** Perc, MeCl, and TCE Concentrations (ug/m^3).

ID	Met. Data Used	Direction Range (deg.)	Distance Range (m)	High Max. Conc.	Low Max. Conc.	Avg. Max. Conc.
G-01	10 Sites, Multi-Year	N/A	20	617	198	327
G-02	10 Sites, Multi-Year	N/A	20	397	121	198
G-03	10 Sites, Multi-Year	N/A	30	154	47	72

NOTE: *All met data indicated in Table 9A is used per generic facility. High, low, and average statistics are based on the single highest concentrations estimated per met site (i.e., a sample size of ten, per generic facility). Direction is omitted due to assuming an arbitrary facility orientation (length along X-axis).*

B. Maximum **HOURLY** Perc, MeCl, and TCE Concentrations (ug/m^3).

ID	Met. Data Used	Direction Range (deg.)	Distance Range [1] (m)	High Max. Conc.	Low Max. Conc.	Avg. Max. Conc.
G-01	10 Sites, Multi-Year	N/A	20	12,418	8,383	10,938
	Default 'screening'		*20*	*11,343*	*10,449*	*10,757*
G-02	10 Sites, Multi-Year	N/A	20	5,533	3,794	4,986
	Default 'screening'		*20*	*5,277*	*4,628*	*4,864*
G-03	10 Sites, Multi-Year	N/A	50	2,644	1,713	2,079
	Default 'screening'		*20*	*2,745*	*1,955*	*2,281*

NOTE:

Building orientation was set up in two different ways. For default, 'screening' runs distances are measured from each facility's leading edge. For all other runs distances are measured from the facility centroid. Thus, default, 'screening' distances can be adjusted for comparison by adding half of each facility's length to these distances and to distance in Appendix A (6, 10, and 30 meters, respectively, for G-01, G-02, and G-03). Thus, the adjusted distances for the indicated maximum hourly screening concentrations for G-01, G-02, and G-03 would be 26 meters, 30 meters, and 50 meters, respectively.

All met data indicated in Table 9A is used per generic facility. High, low, and average statistics are based on the single highest concentrations estimated per met site (i.e., a sample size of ten, per generic facility). Direction is omitted due to assuming an arbitrary facility orientation (length along X-axis).

Appendix A

Generic Facility
Maximum Hourly and Maximum Annual
Modeling Results

IMPORTANT NOTE:

Building orientation was set up in two different ways. For default, 'screening' runs distances are measured from each facility's leading edge. For all other runs, distances are measured from the facility centroid. This difference has not been accounted for in the following tables. Thus, default, 'screening' concentrations at specific distances reported in the following tables can be adjusted for comparison to other concentrations (i.e. from the facility center) by adding half of each facility's length to the indicated distances (6, 10, and 30 meters, respectively, for G-01, G-02, and G-03).

Appendix A: ISCST3 Generic Facility Concentration Results vs. Distance Using Default and Regional Met Data

SITENAME	PERIOD	DISTANCE	DFLT_00	DFLT_45	DFLT_90	BUR	CND	FAT	LAX	MCC	MHR	OAK	RED	SAC	STN071	AVERAGE	LOW	HIGH
G01	1-HR	20	11343	10449	10480	12418	12418	11156	8383	11008	8471	10520	11400	11199	12413	10938	8383	12418
G01	1-HR	30	8496	7887	8249	9255	9255	8403	5997	8490	5762	8021	8621	8535	9249	8159	5762	9255
G01	1-HR	40	6579	6106	6464	7115	7115	6522	4610	6666	4465	6282	6687	6652	7110	6322	4465	7115
G01	1-HR	50	5239	4934	5112	5625	5625	5186	3645	5344	3546	5030	5317	5307	5620	5025	3546	5625
G01	1-HR	60	4269	4064	4114	4555	4555	4215	2952	4368	2879	4106	4323	4324	4551	4083	2879	4555
G01	1-HR	70	3547	3404	3460	3764	3764	3490	2439	3634	2382	3411	3581	3588	3760	3381	2382	3764
G01	1-HR	80	2996	2892	2947	3164	3164	2938	2050	3070	2004	2877	3016	3026	3160	2847	2004	3164
G01	1-HR	90	2565	2488	2539	2698	2698	2507	1748	2628	1710	2460	2576	2587	2694	2430	1710	2698
G01	1-HR	100	2223	2165	2210	2329	2329	2166	1509	2275	1478	2127	2226	2238	2326	2100	1478	2329
G01	1-HR	120	1720	1684	1720	1791	1791	1665	1160	1757	1141	1639	1714	1725	1788	1617	1141	1791
G01	1-HR	140	1373	1350	1378	1423	1423	1323	1011	1400	909	1304	1364	1374	1421	1295	909	1423
G01	1-HR	150	1239	1220	1245	1282	1282	1192	953	1262	820	1174	1228	1238	1280	1171	820	1282
G01	1-HR	160	1125	1109	1131	1161	1161	1079	902	1145	743	1064	1113	1122	1159	1065	743	1161
G01	1-HR	180	940	929	947	967	967	899	815	955	621	886	929	936	966	894	621	967
G01	1-HR	200	799	791	805	820	820	761	744	810	527	751	789	794	819	764	527	820
G01	1-HR	250	564	559	568	576	576	533	612	570	371	526	556	558	574	545	371	612
G01	1-HR	300	422	420	426	430	430	398	521	426	278	392	416	417	429	414	278	521
G01	1-HR	350	330	329	333	335	335	310	454	332	217	306	325	326	335	328	217	454
G01	1-HR	400	267	266	269	271	271	250	403	268	175	246	262	263	270	268	175	403
G01	1-HR	450	222	221	223	224	224	206	363	222	145	203	217	218	224	225	145	363
G01	1-HR	500	188	187	189	189	189	174	331	188	123	172	184	184	189	192	123	331
G01	1-HR	600	141	140	142	142	142	130	282	141	92	128	138	138	142	147	92	282
G01	1-HR	700	111	111	111	112	112	102	246	111	72	100	108	108	111	118	72	246
G01	1-HR	800	90	90	91	91	91	83	220	90	59	81	88	88	91	98	59	220
G01	1-HR	900	75	75	76	76	76	69	198	75	49	68	74	74	76	83	49	198
G01	1-HR	1000	64	64	64	65	65	59	181	64	42	58	63	63	65	72	42	181
G01	1-HR	2000	24	24	24	24	24	21	103	23	15	21	23	23	24	30	15	103
G01	1-HR	3000	14	14	14	14	14	12	75	14	9	12	13	13	14	19	9	75
G01	1-HR	4000	10	10	10	10	10	8	61	9	6	8	9	9	10	14	6	61
G01	1-HR	5000	7	7	7	7	7	6	52	7	5	6	7	7	7	11	5	52
G01	1-HR	6000	6	6	6	6	6	5	46	6	4	5	6	6	6	9	4	46
G01	1-HR	7000	5	5	5	5	5	4	41	5	3	4	5	5	5	8	3	41
G01	1-HR	8000	4	4	4	4	4	3	37	4	3	3	4	4	4	7	3	37
G01	1-HR	9000	4	4	4	4	4	3	34	4	2	3	4	4	4	6	2	34
G01	1-HR	10000	3	3	3	3	3	2	32	3	2	2	3	3	3	6	2	32
G01	1-HR	23000	1	1	1	1	1	1	18	1	1	1	1	1	2	3	1	18

SITENAME	PERIOD	DISTANCE	DFLT_00	DFLT_45	DFLT_90	BUR	CND	FAT	LAX	MCC	MHR	OAK	RED	SAC	STN071	AVERAGE	LOW	HIGH
G02	1-HR	20	5277	4688	4628	5528	5533	5151	4438	4940	3794	4686	5263	5079	5444	4986	3794	5533
G02	1-HR	30	4359	3967	3997	4845	4845	4330	3329	4201	3374	4028	4406	4307	4844	4251	3329	4845
G02	1-HR	40	3649	3368	3418	4048	4048	3636	2623	3603	2579	3439	3722	3661	4047	3541	2579	4048
G02	1-HR	50	3095	2869	2982	3418	3418	3085	2215	3101	2119	2942	3169	3130	3416	3001	2119	3418
G02	1-HR	60	2656	2459	2596	2918	2918	2652	1891	2687	1819	2532	2722	2698	2916	2575	1819	2918
G02	1-HR	70	2304	2128	2263	2518	2518	2300	1631	2345	1576	2209	2360	2345	2516	2232	1576	2518
G02	1-HR	80	2018	1881	1979	2194	2194	2012	1421	2062	1378	1941	2064	2055	2192	1951	1378	2194
G02	1-HR	90	1782	1674	1739	1928	1928	1774	1249	1825	1214	1717	1820	1815	1926	1720	1214	1928
G02	1-HR	100	1586	1500	1536	1708	1708	1575	1162	1627	1077	1530	1616	1615	1707	1533	1077	1708
G02	1-HR	120	1282	1224	1241	1370	1370	1267	1021	1316	865	1235	1301	1302	1368	1242	865	1370
G02	1-HR	140	1059	1019	1037	1124	1124	1042	911	1088	711	1019	1070	1073	1123	1029	711	1124
G02	1-HR	150	970	936	953	1026	1026	952	865	995	650	932	978	981	1025	943	650	1026
G02	1-HR	160	892	863	879	941	941	873	823	915	596	855	898	901	940	868	596	941
G02	1-HR	180	762	741	755	801	801	743	751	781	507	729	765	768	800	744	507	801
G02	1-HR	200	660	644	657	691	691	641	690	675	439	630	660	664	690	647	439	691
G02	1-HR	250	482	474	483	501	501	464	576	492	319	457	479	483	500	477	319	576
G02	1-HR	300	370	365	372	382	382	354	495	377	245	349	366	369	382	370	245	495
G02	1-HR	350	295	292	297	303	303	281	435	299	195	277	291	294	303	298	195	435
G02	1-HR	400	242	240	243	248	248	229	389	245	159	226	239	240	247	247	159	389
G02	1-HR	450	203	201	204	207	207	191	352	205	134	189	200	201	207	209	134	352
G02	1-HR	500	173	172	174	177	177	163	321	175	114	160	171	171	176	181	114	321
G02	1-HR	600	132	131	133	134	134	123	275	133	87	121	130	130	134	140	87	275
G02	1-HR	700	105	104	105	106	106	97	241	105	69	96	103	103	106	113	69	241
G02	1-HR	800	86	86	86	87	87	80	216	86	56	78	84	84	87	94	56	216
G02	1-HR	900	72	72	73	73	73	67	195	72	47	65	71	71	73	81	47	195
G02	1-HR	1000	62	62	62	62	62	57	179	62	40	56	61	61	62	70	40	179
G02	1-HR	2000	23	23	23	23	23	21	102	23	15	20	23	23	23	30	15	102
G02	1-HR	3000	14	14	14	14	14	12	75	13	9	12	13	13	14	19	9	75
G02	1-HR	4000	9	9	9	9	9	8	61	9	6	8	9	9	9	14	6	61
G02	1-HR	5000	7	7	7	7	7	6	52	7	5	6	7	7	7	11	5	52
G02	1-HR	6000	6	6	6	6	6	5	46	6	4	5	6	6	6	9	4	46
G02	1-HR	7000	5	5	5	5	5	4	41	5	3	4	5	5	5	8	3	41
G02	1-HR	8000	4	4	4	4	4	3	37	4	3	3	4	4	4	7	3	37
G02	1-HR	9000	4	4	4	4	4	3	34	4	2	3	4	4	4	6	2	34
G02	1-HR	10000	3	3	3	3	3	2	32	3	2	2	3	3	3	6	2	32
G02	1-HR	23000	1	1	1	1	1	1	18	1	1	1	1	1	2	3	1	18

SITENAME	PERIOD	DISTANCE	DFLT_00	DFLT_45	DFLT_90	BUR	CND	FAT	LAX	MCC	MHR	OAK	RED	SAC	STN071	AVERAGE	LOW	HIGH
G03	1-HR	20	2745	2144	1955	1344	1345	1266	993	1325	958	1242	1204	1296	1344	1232	958	1345
G03	1-HR	30	2385	1902	1899	1965	1965	1668	1273	1554	1290	1457	1727	1644	1964	1651	1273	1965
G03	1-HR	40	2088	1703	1724	1702	1702	1473	1103	1492	1241	1456	1518	1452	1702	1484	1103	1702
G03	1-HR	50	1841	1533	1510	2641	2644	1934	1713	1765	1735	1716	2116	1885	2644	2079	1713	2644
G03	1-HR	60	1636	1387	1375	2498	2498	1747	1619	1582	1547	1622	1858	1691	2497	1916	1547	2498
G03	1-HR	70	1463	1252	1259	2180	2180	1553	1413	1382	1268	1416	1678	1516	2179	1676	1268	2180
G03	1-HR	80	1316	1139	1153	1916	1916	1403	1241	1215	1058	1244	1511	1379	1915	1480	1058	1916
G03	1-HR	90	1191	1048	1062	1695	1695	1280	1099	1118	896	1101	1361	1252	1695	1319	896	1695
G03	1-HR	100	1083	967	986	1511	1511	1168	979	1034	791	981	1227	1135	1510	1185	791	1511
G03	1-HR	120	909	827	843	1223	1223	977	833	882	667	824	1006	937	1222	980	667	1223
G03	1-HR	140	774	713	723	1012	1012	825	761	754	569	717	837	805	1011	830	569	1012
G03	1-HR	150	719	664	681	927	927	761	729	699	527	670	777	750	927	769	527	927
G03	1-HR	160	669	619	642	853	853	703	699	654	490	627	722	700	852	715	490	853
G03	1-HR	180	585	542	571	730	730	606	645	580	426	551	630	614	730	624	426	730
G03	1-HR	200	516	477	509	633	633	528	601	517	374	487	554	543	633	550	374	633
G03	1-HR	250	392	357	388	464	464	396	517	399	280	368	416	411	464	418	280	517
G03	1-HR	300	310	287	303	358	358	311	454	318	218	292	326	324	357	331	218	454
G03	1-HR	350	252	237	242	286	286	252	404	260	176	238	263	263	285	271	176	404
G03	1-HR	400	210	200	199	235	235	209	365	217	145	199	218	218	235	228	145	365
G03	1-HR	450	179	171	171	198	198	176	333	185	123	169	184	185	197	195	123	333
G03	1-HR	500	155	149	149	169	169	151	306	159	105	146	158	159	169	169	105	306
G03	1-HR	600	120	116	117	129	129	116	265	123	80	113	122	122	129	133	80	265
G03	1-HR	700	96	94	95	103	103	93	234	99	64	90	97	98	102	108	64	234
G03	1-HR	800	80	78	79	84	84	76	210	82	53	74	80	81	84	91	53	210
G03	1-HR	900	68	67	67	71	71	64	191	69	45	63	67	68	71	78	45	191
G03	1-HR	1000	58	58	58	61	61	55	175	59	39	54	58	59	61	68	39	175
G03	1-HR	2000	23	23	23	23	23	21	101	23	15	20	22	22	23	29	15	101
G03	1-HR	3000	13	13	13	14	14	12	74	13	9	11	13	13	14	19	9	74
G03	1-HR	4000	9	9	9	9	9	8	60	9	6	8	9	9	9	14	6	60
G03	1-HR	5000	7	7	7	7	7	6	52	7	5	6	7	7	7	11	5	52
G03	1-HR	6000	6	6	6	6	6	5	45	6	4	5	6	6	6	9	4	45
G03	1-HR	7000	5	5	5	5	5	4	41	5	3	4	5	5	5	8	3	41
G03	1-HR	8000	4	4	4	4	4	3	37	4	3	3	4	4	4	7	3	37
G03	1-HR	9000	4	4	4	4	4	3	34	4	2	3	4	4	4	6	2	34
G03	1-HR	10000	3	3	3	3	3	2	32	3	2	2	3	3	3	6	2	32
G03	1-HR	23000	1	1	1	1	1	1	18	1	1	1	1	1	2	3	1	18

Appendix A: ISCST3 Generic Facility Concentration Results vs. Distance Using Default and Regional Met Data

SITENAME	PERIOD	DISTANCE	DFLT_00 DFLT_45 DFLT_90	BUR	CND	FAT	LAX	MCC	MHR	OAK	RED	SAC	STN071	AVERAGE	LOW	HIGH
G01	ANNUAL	20	Not Applicable w/ Annual	617	266	262	358	291	209	272	198	206	588	327	198	617
G01	ANNUAL	30	Not Applicable w/ Annual	353	150	147	216	169	119	151	117	115	328	186	115	353
G01	ANNUAL	40	Not Applicable w/ Annual	227	96	94	144	109	76	96	77	73	209	120	73	227
G01	ANNUAL	50	Not Applicable w/ Annual	158	68	66	102	76	53	67	54	50	145	84	50	158
G01	ANNUAL	60	Not Applicable w/ Annual	116	50	48	76	56	39	49	40	37	106	62	37	116
G01	ANNUAL	70	Not Applicable w/ Annual	88	39	37	59	43	30	38	31	28	81	47	28	88
G01	ANNUAL	80	Not Applicable w/ Annual	70	31	29	47	34	23	30	25	22	64	37	22	70
G01	ANNUAL	90	Not Applicable w/ Annual	56	25	24	39	28	19	24	20	18	52	30	18	56
G01	ANNUAL	100	Not Applicable w/ Annual	47	21	20	32	23	16	20	17	15	43	25	15	47
G01	ANNUAL	120	Not Applicable w/ Annual	33	15	14	23	16	11	14	12	10	30	18	10	33
G01	ANNUAL	140	Not Applicable w/ Annual	25	11	11	18	12	8	11	9	8	23	14	8	25
G01	ANNUAL	150	Not Applicable w/ Annual	22	10	9	16	11	7	9	8	7	20	12	7	22
G01	ANNUAL	160	Not Applicable w/ Annual	19	9	8	14	10	7	8	7	6	18	11	6	19
G01	ANNUAL	180	Not Applicable w/ Annual	15	7	7	11	8	5	7	6	5	14	8	5	15
G01	ANNUAL	200	Not Applicable w/ Annual	13	6	5	9	6	4	5	5	4	12	7	4	13
G01	ANNUAL	250	Not Applicable w/ Annual	8	4	4	6	4	3	4	3	3	8	5	3	8
G01	ANNUAL	300	Not Applicable w/ Annual	6	3	2	4	3	2	3	2	2	5	3	2	6
G01	ANNUAL	350	Not Applicable w/ Annual	4	2	2	3	2	1	2	2	1	4	2	1	4
G01	ANNUAL	400	Not Applicable w/ Annual	3	2	1	3	2	1	1	1	1	3	2	1	3
G01	ANNUAL	450	Not Applicable w/ Annual	3	1	1	2	1	1	1	1	1	2	1	1	3
G01	ANNUAL	500	Not Applicable w/ Annual	2	1	1	2	1	1	1	1	1	2	1	1	2
G01	ANNUAL	600	Not Applicable w/ Annual	2	1	1	1	1	1	1	1	0	1	1	0	2
G01	ANNUAL	700	Not Applicable w/ Annual	1	1	0	1	1	0	1	0	0	1	1	0	1
G01	ANNUAL	800	Not Applicable w/ Annual	1	0	0	1	0	0	0	0	0	1	0	0	1
G01	ANNUAL	900	Not Applicable w/ Annual	1	0	0	1	0	0	0	0	0	1	0	0	1
G01	ANNUAL	1000	Not Applicable w/ Annual	1	0	0	0	0	0	0	0	0	1	0	0	1
G01	ANNUAL	2000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G01	ANNUAL	3000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G01	ANNUAL	4000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G01	ANNUAL	5000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G01	ANNUAL	6000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G01	ANNUAL	7000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G01	ANNUAL	8000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G01	ANNUAL	9000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G01	ANNUAL	10000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G01	ANNUAL	23000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0

SITENAME	PERIOD	DISTANCE	DFLT_00 DFLT_45 DFLT_90	BUR	CND	FAT	LAX	MCC	MHR	OAK	RED	SAC	STN071	AVERAGE	LOW	HIGH
G02	ANNUAL	20	Not Applicable w/ Annual	397	173	155	181	178	135	138	121	135	370	198	121	397
G02	ANNUAL	30	Not Applicable w/ Annual	257	114	113	148	121	88	118	82	88	251	138	82	257
G02	ANNUAL	40	Not Applicable w/ Annual	177	77	75	106	84	61	79	58	59	168	94	58	177
G02	ANNUAL	50	Not Applicable w/ Annual	129	55	54	79	62	44	56	43	42	120	69	42	129
G02	ANNUAL	60	Not Applicable w/ Annual	98	42	41	61	47	33	42	33	32	91	52	32	98
G02	ANNUAL	70	Not Applicable w/ Annual	76	33	32	49	37	26	33	26	25	71	41	25	76
G02	ANNUAL	80	Not Applicable w/ Annual	61	27	26	40	30	21	26	21	20	57	33	20	61
G02	ANNUAL	90	Not Applicable w/ Annual	50	22	21	33	25	17	22	18	16	46	27	16	50
G02	ANNUAL	100	Not Applicable w/ Annual	42	18	18	28	21	14	18	15	13	39	23	13	42
G02	ANNUAL	120	Not Applicable w/ Annual	31	14	13	21	15	10	13	11	10	28	16	10	31
G02	ANNUAL	140	Not Applicable w/ Annual	23	10	10	16	11	8	10	8	7	21	13	7	23
G02	ANNUAL	150	Not Applicable w/ Annual	20	9	9	14	10	7	9	7	6	19	11	6	20
G02	ANNUAL	160	Not Applicable w/ Annual	18	8	8	13	9	6	8	7	6	17	10	6	18
G02	ANNUAL	180	Not Applicable w/ Annual	15	7	6	10	7	5	6	5	5	13	8	5	15
G02	ANNUAL	200	Not Applicable w/ Annual	12	6	5	9	6	4	5	4	4	11	7	4	12
G02	ANNUAL	250	Not Applicable w/ Annual	8	4	3	6	4	3	3	3	2	7	4	2	8
G02	ANNUAL	300	Not Applicable w/ Annual	6	3	2	4	3	2	2	2	2	5	3	2	6
G02	ANNUAL	350	Not Applicable w/ Annual	4	2	2	3	2	1	2	2	1	4	2	1	4
G02	ANNUAL	400	Not Applicable w/ Annual	3	2	1	2	2	1	1	1	1	3	2	1	3
G02	ANNUAL	450	Not Applicable w/ Annual	3	1	1	2	1	1	1	1	1	2	1	1	3
G02	ANNUAL	500	Not Applicable w/ Annual	2	1	1	2	1	1	1	1	1	2	1	1	2
G02	ANNUAL	600	Not Applicable w/ Annual	1	1	1	1	1	1	1	1	0	1	1	0	1
G02	ANNUAL	700	Not Applicable w/ Annual	1	1	0	1	1	0	1	0	0	1	1	0	1
G02	ANNUAL	800	Not Applicable w/ Annual	1	0	0	1	0	0	0	0	0	1	0	0	1
G02	ANNUAL	900	Not Applicable w/ Annual	1	0	0	1	0	0	0	0	0	1	0	0	1
G02	ANNUAL	1000	Not Applicable w/ Annual	1	0	0	0	0	0	0	0	0	1	0	0	1
G02	ANNUAL	2000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G02	ANNUAL	3000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G02	ANNUAL	4000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G02	ANNUAL	5000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G02	ANNUAL	6000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G02	ANNUAL	7000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G02	ANNUAL	8000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G02	ANNUAL	9000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G02	ANNUAL	10000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G02	ANNUAL	23000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0

SITENAME	PERIOD	DISTANCE	DFLT_00 DFLT_45 DFLT_90	BUR	CND	FAT	LAX	MCC	MHR	OAK	RED	SAC	STN071	AVERAGE	LOW	HIGH
G03	ANNUAL	20	Not Applicable w/ Annual	71	40	41	45	25	30	32	26	31	90	43	25	90
G03	ANNUAL	30	Not Applicable w/ Annual	154	67	52	59	63	54	47	47	54	128	72	47	154
G03	ANNUAL	40	Not Applicable w/ Annual	140	64	47	45	57	49	38	44	49	119	65	38	140
G03	ANNUAL	50	Not Applicable w/ Annual	113	57	57	77	43	44	55	38	42	126	65	38	126
G03	ANNUAL	60	Not Applicable w/ Annual	80	41	48	64	34	37	53	27	31	96	51	27	96
G03	ANNUAL	70	Not Applicable w/ Annual	62	31	35	50	28	27	39	21	23	72	39	21	72
G03	ANNUAL	80	Not Applicable w/ Annual	51	24	27	40	24	21	30	17	18	56	31	17	56
G03	ANNUAL	90	Not Applicable w/ Annual	42	20	22	33	20	16	24	15	15	45	25	15	45
G03	ANNUAL	100	Not Applicable w/ Annual	36	17	18	28	17	13	20	12	13	37	21	12	37
G03	ANNUAL	120	Not Applicable w/ Annual	27	12	13	20	13	9	14	9	9	27	15	9	27
G03	ANNUAL	140	Not Applicable w/ Annual	21	9	10	16	10	7	10	7	7	20	12	7	21
G03	ANNUAL	150	Not Applicable w/ Annual	19	8	8	14	9	6	9	7	6	18	10	6	19
G03	ANNUAL	160	Not Applicable w/ Annual	17	8	8	12	8	6	8	6	6	16	9	6	17
G03	ANNUAL	180	Not Applicable w/ Annual	14	6	6	10	7	5	6	5	4	13	8	4	14
G03	ANNUAL	200	Not Applicable w/ Annual	11	5	5	8	6	4	5	4	4	11	6	4	11
G03	ANNUAL	250	Not Applicable w/ Annual	8	4	3	6	4	3	3	3	2	7	4	2	8
G03	ANNUAL	300	Not Applicable w/ Annual	5	3	2	4	3	2	2	2	2	5	3	2	5
G03	ANNUAL	350	Not Applicable w/ Annual	4	2	2	3	2	1	2	2	1	4	2	1	4
G03	ANNUAL	400	Not Applicable w/ Annual	3	2	1	2	2	1	1	1	1	3	2	1	3
G03	ANNUAL	450	Not Applicable w/ Annual	3	1	1	2	1	1	1	1	1	2	1	1	3
G03	ANNUAL	500	Not Applicable w/ Annual	2	1	1	2	1	1	1	1	1	2	1	1	2
G03	ANNUAL	600	Not Applicable w/ Annual	1	1	1	1	1	1	1	1	0	1	1	0	1
G03	ANNUAL	700	Not Applicable w/ Annual	1	1	0	1	1	0	0	0	0	1	1	0	1
G03	ANNUAL	800	Not Applicable w/ Annual	1	0	0	1	0	0	0	0	0	1	0	0	1
G03	ANNUAL	900	Not Applicable w/ Annual	1	0	0	1	0	0	0	0	0	1	0	0	1
G03	ANNUAL	1000	Not Applicable w/ Annual	1	0	0	0	0	0	0	0	0	1	0	0	1
G03	ANNUAL	2000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G03	ANNUAL	3000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G03	ANNUAL	4000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G03	ANNUAL	5000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G03	ANNUAL	6000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G03	ANNUAL	7000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G03	ANNUAL	8000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G03	ANNUAL	9000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G03	ANNUAL	10000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0
G03	ANNUAL	23000	Not Applicable w/ Annual	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix E

Statewide Population Exposure Estimate Modeling Memorandums

Memorandum 1. Analysis and Population Exposure Estimates for Perchloroethylene Needs Assessment for Brake Cleaning Products, Updated With 1997 Data (April 7, 1999)

Air Resources Board

Alan C. Lloyd, Ph.D.
Chairman
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Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

MEMORANDUM

TO: Todd Wong, Manager
Emissions Evaluation Section
Stationary Source Division

FROM: Bob Effa, Manager
Client Support Services Section
Planning & Technical Support Division

DATE: April 7, 1999

SUBJECT: ANALYSIS AND POPULATION EXPOSURE ESTIMATES FOR PERCHLOROETHYLENE NEEDS ASSESSMENT FOR BRAKE CLEANING PRODUCTS, **UPDATED WITH 1997 DATA**

This memorandum is in response to your request for an update of an additional year of data to our March 26, 1998, memo of the same subject regarding an analysis of ambient perchloroethylene data and population-weighted exposure. All remarks regarding data and methods used in the previous memo apply to this work. Due to time constraints, we did not attempt to refine the previous analyses. All tables of results follow the same format as those in the March 26, 1998, memo, with the addition of 1997 statistics. The same information for 1990-1996 are reprinted for ease of comparison. In addition, a table displaying site names and their site numbers is part of the new Appendix. The following highlights some additional information.

ADDITIONAL DATA

This analysis is based on ambient data collected by the Air Resources Board (ARB) and compiled in the ARB Air Toxics database. The 1997 data were extracted on March 29, 1999. Thus, this analysis does not reflect any changes that may have occurred since that time. In 1997, one site in the San Francisco Bay Area (Richmond) closed and was replaced by a site in San Pablo. Also, the addition of the Salton Sea Air Basin added Calexico to the monitoring network. Since this site only has data from July 1995 to December 1997, and this analysis examines perchloroethylene exposure trends from 1990 to 1997, the data from this site were not used in the calculation of population exposure.

Missing data points in 1997

During the analysis of 1997 data, we encountered 5 sites with missing data as shown in Table 1. To develop the population-weighted perchloroethylene exposure estimates, we had to populate the data set with the most accurate data estimates available for the calculation of the mean of monthly means. In the case of Richmond being replaced by San Pablo in the San Francisco Bay Area, we simply combined the data into one set for one site (Richmond). For the other sites with missing 1997 data, we incorporated 1996 data in the same manner used in our previous memo. Riverside-Rubidoux had only one value for 1997; therefore, we used its 1996 data completely in the calculation of population-weighted exposure.

TABLE 1

Perchloroethylene Data Analysis
Missing Values in 1997 Data Set and
the Mean of Monthly Means Based on Replaced Data

Site Name	Year	Month(s) Missing	Calculated Mean of Monthly Means
Richmond-13th St	1997	May-Dec	0.040 ppbv
San Pablo-El Portal	1997	Jan-April	(replaces Richmond)
Chico-Manzanita Ave	1997	May	0.040 ppbv
Fremont-Chapel Way	1997	March-September	0.044 ppbv
Los Angeles-N. Main St	1997	Aug-September	0.324 ppbv
Riverside-Rubidoux	1997	February-Dec	0.175 ppbv

There were no unusual observations in 1997, hence no need for an update to Table 2 of our previous memo.

CLARIFICATION ON METHODOLOGY

Although we used the same methodology as that in the March 26, 1998 memo, some clarification is in order.

On page 5 of the previous memo, in the second paragraph of the "Methodology" section, the calculation of population exposure estimates for basins other than the South Coast and San Francisco Bay reduces to using the basin-wide mean of monthly mean concentrations, with missing values handled as described above.

On page 6 of the previous memo, the second sentence should state that "the overall statewide population-weighted exposure was calculated by multiplying the estimated annual average perchloroethylene exposure for a given air basin by its population, added across all

basins, then divided by the total population of the state". In other words, the statewide exposure estimate is a weighted average of the basin exposures, with weights determined by the basin populations.

On page 8 of the previous memo, the last paragraph should detail the calculation of basin-specific summary statistics as follows. The minimum, maximum, arithmetic mean, standard deviation and the number of sites are calculated from all values from all sites within the basin. For the basin mean of monthly means, the basin monthly mean is first calculated for each month based on site means for the month. Then the twelve basin monthly means are averaged to obtain the basin-wide annual mean of monthly means. Missing 1997 data have been estimated using 1996 information in the calculation of basin-wide mean of monthly means.

UNCERTAINTY AND LIMITATIONS OF ANALYSIS

There are a number of factors that contribute to uncertainty in the data and in the conclusions drawn from the data. These are not necessarily easy to quantify. Three such factors are discussed below, and they underscore the need to use caution when drawing conclusions from a limited set of data.

One source of uncertainty in our results is attributable to having a very limited number of sites throughout the state and to the infrequency of sampling. As discussed in the March 26, 1998, memo, the statewide population-weighted perchloroethylene exposure is calculated based on a limited data set derived from a statewide network of only 21 or 22 sites that collect one 24-hour sample every twelve days.

MLD conducts performance audits of the toxics program through both laboratory and field audits. Laboratory audits test the analytical methods and are conducted semi-annually. Field audits test the accuracy of the full toxics sampling procedure through a method referred to as "through-the-probe" (TTP) performance audits. These audits test the sample collection, transport, storage and analytical integrity of the toxics sampling effort. TTP audits are quite time consuming and are only conducted annually at each site. MLD publishes the results on the Internet. For perchloroethylene, the latest TTP audit information on the ARB web site indicates an average accuracy for the 20-plus sites to range from -21.5% to +7.2% between 1993 and 1997.

Yet another assumption to keep in mind is that the ambient concentrations of perchloroethylene we used in our analysis represent only outdoor exposures. Essentially, the exposure estimates assume 24 hours a day of outdoor exposure, without considering indoor exposure to this compound. Therefore, caution should be exercised when using these population exposure estimates.

RESULTS

The results of the exposure analysis are summarized in Table 3, with 1997 results added to the far-right column. The estimated statewide population-weighted perchloroethylene

exposure, shown at the bottom of the table, decreases from 0.203 ppb-year/person in 1996 to 0.168 ppb-year/person in 1997. The general trend for statewide perchloroethylene population-weighted exposure is downward in all basins, with the exception occurring in San Francisco Air Basin (slight increase from 0.068 in 1996 to 0.071 ppb-year/person in 1997).

TABLE 3

Estimated Air Basin Population-Weighted* Perchloroethylene Exposure
based on 1990 Census (ppb-year/person)**

Air Basin	1990	1991	1992	1993	1994	1995	1996	1997
South Coast	0.590	0.542	0.430	0.472	0.410	0.392	0.330	0.264
South Central Coast	0.181	0.160	0.124	0.095	0.110	0.100	0.104	0.081
San Diego	0.280	0.261	0.262	0.193	0.204	0.244	0.133	0.124
San Francisco	0.196	0.223	0.158	0.124	0.082	0.091	0.068	0.071
San Joaquin Valley	0.121	0.131	0.105	0.410	0.067	0.070	0.064	0.056
Sacramento Valley	0.070	0.075	0.058	0.051	0.181	0.053	0.054	0.053

Air Basin Population Data Used in Calculating Statewide Perchloroethylene Exposure

Air Basin	1990	1991	1992	1993	1994	1995	1996	1997
South Coast	10684933	10910823	11124105	11206222	11298530	11372003	11441517	11608906
South Central Coast	1041100	1055600	1072600	1080800	1092900	1104100	1108500	1128000
San Diego	2511400	2560800	2611500	2625100	2650700	2669200	2694900	2763400
San Francisco	4324700	4377500	4451700	4511100	4543300	4569800	4649400	4743500
San Joaquin Valley	1977876	2040876	2097395	2130385	2158376	2192027	2226921	2260164
Sacramento Valley	1377350	1413279	1440859	1458943	1469597	1482705	1502236	1524248
SUM	21917359	22358878	22798159	23012550	23213403	23389835	23623474	24028218

Estimated Statewide Population-Weighted Perchloroethylene Exposure
ppb-year/person**

Statewide WTD AVG	0.382	0.362	0.290	0.322	0.262	0.251	0.203	0.168

* Only air basins with perchloroethylene monitoring included in this table. Air basin population-weighted exposure is calculated using mean of monthly means for all sites within basin.

** Population exposure units are a concentration for a given duration per person; For this analysis, the units are ppb-year/person.

In summary, this exposure analysis was developed with data from the six air basins listed above. The South Coast and San Francisco Bay basins were population-weighted using census tract data, and the rest of the basins were estimated using basin-wide annual mean of monthly mean concentrations. The six areas represent approximately 72% of the statewide population. Details of the analysis methods can be found in the March 26, 1998, memo.

SUMMARY TABLES IN APPENDIX

The site and air basin annual summary statistics have been updated with 1997 results. Table A-3 has also been added to aid in identifying the sites.

cc: Bart Croes, PTSD
Hien Tran, PTSD

APPENDIX

TABLE A-1

Site Summary Table

Annual Site Specific Summary Statistics

ARB SITE	YEAR	Air Basin	County	NO_ OBS	Site Mean (ppbv)	Standard Deviation (ppbv)	Mean of Monthly Mean (ppbv)	Site Maximum (ppbv)	Site Minimum (ppbv)
7000069	1990	SC	LA	31	1.193	1.087	1.191	5.000	0.200
7000069	1991	SC	LA	29	0.761	0.615	0.785	2.400	0.070
7000069	1992	SC	LA	30	0.615	0.305	0.609	1.500	0.110
7000069	1993	SC	LA	33	0.601	0.472	0.620	1.700	0.040
7000069	1994	SC	LA	29	0.641	0.530	0.663	2.100	0.040
7000069	1995	SC	LA	31	0.494	0.360	0.487	1.700	0.030
7000069	1996	SC	LA	30	0.428	0.230	0.440	1.400	0.090
7000069	1997	SC	LA	29	0.379	0.234	0.356	1.200	0.100
7000072	1990	SC	LA	31	0.475	0.359	0.477	1.500	0.090
7000072	1991	SC	LA	29	0.341	0.292	0.355	1.100	0.040
7000072	1992	SC	LA	30	0.353	0.247	0.349	1.200	0.100
7000072	1993	SC	LA	32	0.384	0.462	0.433	1.500	0.010
7000072	1994	SC	LA	30	0.301	0.335	0.321	1.300	0.010
7000072	1995	SC	LA	31	0.317	0.346	0.318	1.600	0.030
7000072	1996	SC	LA	25	0.241	0.266	0.226	1.100	0.010
7000072	1997	SC	LA	30	0.228	0.182	0.225	0.500	0.020
7000087	1990	SC	LA	29	0.545	0.256	0.551	1.100	0.240
7000087	1991	SC	LA	28	0.608	0.540	0.604	2.800	0.070
7000087	1992	SC	LA	31	0.519	0.209	0.536	1.000	0.200
7000087	1993	SC	LA	26	0.535	0.326	0.588	1.100	0.050
7000087	1994	SC	LA	30	0.522	0.425	0.503	2.000	0.030
7000087	1995	SC	LA	31	0.581	0.380	0.574	1.400	0.060
7000087	1996	SC	LA	28	0.492	0.315	0.502	1.500	0.120
7000087	1997	SC	LA	22	0.339	0.150	0.337	0.700	0.060
3300144	1990	SC	RIV	28	0.235	0.127	0.237	0.440	0.030
3300144	1991	SC	RIV	29	0.266	0.200	0.276	0.870	0.060
3300144	1992	SC	RIV	30	0.200	0.119	0.201	0.420	0.020
3300144	1993	SC	RIV	29	0.199	0.167	0.198	0.700	0.020
3300144	1994	SC	RIV	31	0.184	0.181	0.191	0.950	0.020
3300144	1995	SC	RIV	31	0.183	0.146	0.177	0.530	0.030
3300144	1996	SC	RIV	31	0.178	0.200	0.176	1.100	0.040
3300144	1997	SC	RIV	1	0.050	n/a	0.050	0.050	0.050
3600175	1990	SC	SBD	27	0.434	0.201	0.423	1.000	0.210
3600175	1991	SC	SBD	28	0.675	1.233	0.717	6.800	0.150

ARB SITE	YEAR	Air Basin	County	NO_ OBS	Site Mean (ppbv)	Standard Deviation (ppbv)	Mean of Monthly Mean (ppbv)	Site Maximum (ppbv)	Site Minimum (ppbv)
3600175	1992	SC	SBD	27	0.360	0.180	0.364	0.680	0.070
3600175	1993	SC	SBD	29	0.392	0.286	0.398	1.100	0.040
3600175	1994	SC	SBD	31	0.284	0.165	0.286	0.820	0.030
3600175	1995	SC	SBD	31	0.265	0.143	0.263	0.550	0.060
3600175	1996	SC	SBD	28	0.203	0.122	0.199	0.530	0.050
3600175	1997	SC	SBD	30	0.198	0.090	0.193	0.400	0.070
4200388	1990	SCC	SBA	27	0.171	0.117	0.176	0.540	0.040
4200388	1991	SCC	SBA	34	0.133	0.093	0.124	0.420	0.040
4200388	1992	SCC	SBA	28	0.098	0.057	0.095	0.310	0.020
4200388	1993	SCC	SBA	31	0.075	0.055	0.075	0.280	0.020
4200388	1994	SCC	SBA	30	0.092	0.118	0.095	0.490	LOD
4200388	1995	SCC	SBA	29	0.075	0.062	0.082	0.280	0.020
4200388	1996	SCC	SBA	30	0.120	0.253	0.120	1.400	0.010
4200388	1997	SCC	SBA	29	0.103	0.088	0.095	0.300	0.010
5600434	1990	SCC	VEN	29	0.190	0.115	0.199	0.520	0.030
5600434	1991	SCC	VEN	28	0.186	0.136	0.192	0.670	0.040
5600434	1992	SCC	VEN	29	0.149	0.097	0.152	0.450	0.020
5600434	1993	SCC	VEN	28	0.116	0.108	0.111	0.580	0.020
5600434	1994	SCC	VEN	29	0.129	0.124	0.122	0.490	0.010
5600434	1995	SCC	VEN	31	0.126	0.110	0.125	0.440	0.020
5600434	1996	SCC	VEN	30	0.087	0.058	0.088	0.300	0.030
5600434	1997	SCC	VEN	29	0.061	0.046	0.068	0.200	0.010
8000114	1990	SD	SD	31	0.235	0.107	0.236	0.480	0.080
8000114	1991	SD	SD	30	0.228	0.129	0.229	0.530	0.060
8000114	1992	SD	SD	30	0.213	0.130	0.208	0.650	0.060
8000114	1993	SD	SD	31	0.141	0.110	0.144	0.530	0.020
8000114	1994	SD	SD	31	0.123	0.121	0.132	0.510	LOD
8000114	1995	SD	SD	29	0.147	0.133	0.146	0.540	0.020
8000114	1996	SD	SD	27	0.124	0.100	0.129	0.450	0.020
8000114	1997	SD	SD	29	0.111	0.099	0.102	0.400	0.010
8000131	1990	SD	SD	31	0.324	0.258	0.329	1.100	0.050
8000131	1991	SD	SD	29	0.293	0.268	0.308	1.300	0.040
8000131	1992	SD	SD	29	0.311	0.222	0.319	0.800	0.060
8000131	1993	SD	SD	28	0.245	0.200	0.256	0.890	0.020
8000131	1994	SD	SD	29	0.285	0.321	0.291	1.600	0.010
8000131	1995	SD	SD	29	0.342	0.585	0.352	3.200	0.040
8000131	1996	SD	SD	30	0.142	0.149	0.168	0.580	0.020
8000131	1997	SD	SD	26	0.147	0.127	0.146	0.500	0.010

ARB SITE	YEAR	Air Basin	County	NO_ OBS	Site Mean (ppbv)	Standard Deviation (ppbv)	Mean of Monthly Mean (ppbv)	Site Maximum (ppbv)	Site Minimum (ppbv)
6000336	1990	SFBA	ALA	30	0.187	0.137	0.189	0.550	0.040
6000336	1991	SFBA	ALA	30	0.210	0.146	0.210	0.540	0.020
6000336	1992	SFBA	ALA	30	0.136	0.119	0.134	0.630	0.030
6000336	1993	SFBA	ALA	30	0.114	0.103	0.114	0.450	0.010
6000336	1994	SFBA	ALA	31	0.095	0.072	0.086	0.290	LOD
6000336	1995	SFBA	ALA	30	0.121	0.077	0.118	0.290	0.030
6000336	1996	SFBA	ALA	31	0.068	0.043	0.069	0.210	0.010
6000336	1997	SFBA	ALA	13	0.062	0.066	0.063	0.200	0.010
0700433	1990	SFBA	CC	29	0.121	0.070	0.121	0.300	0.030
0700433	1991	SFBA	CC	29	0.148	0.077	0.147	0.310	0.030
0700433	1992	SFBA	CC	29	0.097	0.055	0.094	0.240	0.020
0700433	1993	SFBA	CC	30	0.092	0.081	0.092	0.420	0.020
0700433	1994	SFBA	CC	31	0.057	0.057	0.056	0.260	LOD
0700433	1995	SFBA	CC	30	0.043	0.025	0.043	0.100	0.010
0700433	1996	SFBA	CC	31	0.030	0.023	0.031	0.090	LOD
0700433	1997	SFBA	CC	9	0.068	0.060	0.066	0.200	0.010
0700440	1990	SFBA	CC	28	0.325	0.248	0.337	1.000	0.040
0700440	1991	SFBA	CC	29	0.438	0.450	0.419	1.700	0.030
0700440	1992	SFBA	CC	31	0.391	0.404	0.390	1.600	0.040
0700440	1993	SFBA	CC	30	0.207	0.254	0.204	1.100	0.010
0700440	1994	SFBA	CC	32	0.102	0.099	0.098	0.390	LOD
0700440	1995	SFBA	CC	30	0.157	0.242	0.147	1.100	0.020
0700440	1996	SFBA	CC	31	0.082	0.112	0.082	0.600	0.010
0700440	1997	SFBA	CC	29	0.097	0.130	0.102	0.400	0.010
0700445	1997	SFBA	CC	20	0.030	0.044	0.028	0.200	0.005
4300382	1990	SFBA	SCL	27	0.163	0.127	0.161	0.530	0.050
4300382	1991	SFBA	SCL	28	0.152	0.098	0.153	0.410	0.040
4300382	1992	SFBA	SCL	31	0.100	0.073	0.100	0.370	0.030
4300382	1993	SFBA	SCL	30	0.096	0.088	0.094	0.310	0.010
4300382	1994	SFBA	SCL	31	0.072	0.091	0.064	0.440	LOD
4300382	1995	SFBA	SCL	30	0.074	0.070	0.069	0.350	0.020
4300382	1996	SFBA	SCL	31	0.069	0.079	0.068	0.310	LOD
4300382	1997	SFBA	SCL	27	0.099	0.122	0.097	0.500	0.005
9000306	1990	SFBA	SF	28	0.191	0.103	0.199	0.390	0.040
9000306	1991	SFBA	SF	26	0.226	0.182	0.229	0.810	0.030
9000306	1992	SFBA	SF	31	0.133	0.081	0.131	0.360	0.030
9000306	1993	SFBA	SF	28	0.133	0.108	0.133	0.480	0.010
9000306	1994	SFBA	SF	30	0.105	0.100	0.105	0.390	0.010
9000306	1995	SFBA	SF	29	0.097	0.083	0.092	0.380	0.020

ARB SITE	YEAR	Air Basin	County	NO_ OBS	Site Mean (ppbv)	Standard Deviation (ppbv)	Mean of Monthly Mean (ppbv)	Site Maximum (ppbv)	Site Minimum (ppbv)
9000306	1996	SFBA	SF	31	0.084	0.085	0.084	0.420	0.010
9000306	1997	SFBA	SF	29	0.065	0.054	0.064	0.200	0.010
1000246	1990	SJV	FRE	27	0.117	0.095	0.119	0.470	0.040
1000246	1991	SJV	FRE	30	0.140	0.128	0.142	0.690	0.020
1000246	1992	SJV	FRE	30	0.103	0.055	0.102	0.270	0.040
1000246	1993	SJV	FRE	30	0.098	0.091	0.100	0.450	0.020
1000246	1994	SJV	FRE	31	0.063	0.067	0.062	0.250	LOD
1000246	1995	SJV	FRE	30	0.068	0.071	0.065	0.310	0.020
1000246	1996	SJV	FRE	31	0.040	0.029	0.041	0.150	0.010
1000246	1997	SJV	FRE	29	0.044	0.028	0.042	0.100	0.010
1500203	1990	SJV	KER	32	0.093	0.058	0.087	0.290	0.030
1500203	1991	SJV	KER	29	0.126	0.112	0.127	0.520	0.030
1500203	1992	SJV	KER	31	0.077	0.043	0.075	0.200	0.030
1500203	1993	SJV	KER	30	1.299	5.306	1.481	28.000	0.010
1500203*	1993	SJV	KER	29	0.378	1.678	0.317	9.100	0.010
1500203	1994	SJV	KER	9	0.059	0.060	0.050	0.210	0.020
1500255	1994	SJV	KER	23	0.054	0.072	0.055	0.330	LOD
1500255	1995	SJV	KER	32	0.098	0.182	0.092	1.000	0.010
1500255	1996	SJV	KER	32	0.104	0.264	0.119	1.500	LOD
1500255	1997	SJV	KER	32	0.036	0.035	0.036	0.200	0.005
3900252	1990	SJV	SJ	30	0.129	0.068	0.129	0.300	0.040
3900252	1991	SJV	SJ	29	0.115	0.050	0.113	0.220	0.040
3900252	1992	SJV	SJ	28	0.120	0.076	0.120	0.380	0.040
3900252	1993	SJV	SJ	34	0.125	0.173	0.120	0.860	0.020
3900252	1994	SJV	SJ	31	0.066	0.062	0.066	0.240	LOD
3900252	1995	SJV	SJ	30	0.063	0.044	0.061	0.220	0.020
3900252	1996	SJV	SJ	31	0.069	0.075	0.068	0.350	0.010
3900252	1997	SJV	SJ	28	0.096	0.114	0.095	0.400	0.005
5000568	1990	SJV	STA	31	0.144	0.097	0.145	0.370	0.040
5000568	1991	SJV	STA	30	0.142	0.173	0.150	0.870	0.020
5000568	1992	SJV	STA	31	0.120	0.140	0.118	0.790	0.030
5000568	1993	SJV	STA	30	0.116	0.178	0.109	0.850	0.020
5000568	1994	SJV	STA	31	0.093	0.198	0.087	1.100	LOD
5000568	1995	SJV	STA	30	0.052	0.053	0.053	0.230	0.010
5000568	1996	SJV	STA	31	0.043	0.042	0.044	0.220	0.010
5000568	1997	SJV	STA	29	0.049	0.061	0.050	0.300	0.005
1300698	1997	SS	IMP	30	0.105	0.161	0.099	0.800	0.005
0400628	1992	SV	BUT	16	0.053	0.033	0.051	0.120	LOD
0400628	1993	SV	BUT	30	0.056	0.046	0.057	0.190	LOD

* Site 1500203 without 28 ppbv value included

ARB SITE	YEAR	Air Basin	County	NO_ OBS	Site Mean (ppbv)	Standard Deviation (ppbv)	Mean of Monthly Mean (ppbv)	Site Maximum (ppbv)	Site Minimum (ppbv)
0400628	1994	SV	BUT	31	0.299	1.376	0.266	7.700	LOD
0400628	1995	SV	BUT	30	0.052	0.052	0.047	0.210	0.010
0400628	1996	SV	BUT	31	0.048	0.054	0.049	0.260	LOD
0400628	1997	SV	BUT	28	0.041	0.058	0.039	0.300	0.005
0400633	1990	SV	BUT	29	0.047	0.016	0.047	0.080	0.020
0400633	1991	SV	BUT	28	0.055	0.025	0.054	0.110	0.020
0400633	1992	SV	BUT	15	0.047	0.024	0.046	0.090	0.020
3100822	1993	SV	PLA	23	0.045	0.024	0.045	0.090	0.010
3100822	1994	SV	PLA	31	0.062	0.080	0.065	0.440	LOD
3100822	1995	SV	PLA	30	0.054	0.034	0.051	0.160	0.010
3100822	1996	SV	PLA	30	0.060	0.070	0.061	0.340	0.010
3100822	1997	SV	PLA	29	0.065	0.061	0.065	0.200	0.010
3400293	1990	SV	SAC	28	0.092	0.049	0.095	0.260	0.040
3400293	1991	SV	SAC	29	0.095	0.047	0.094	0.230	0.030
3400293	1992	SV	SAC	31	0.075	0.039	0.076	0.180	0.020
3400293	1993	SV	SAC	6	0.053	0.010	0.054	0.070	0.040

TABLE A-2
Air Basin Summary Table
Air Basin Annual Summary Statistics

Air Basin	Year	Number of Sites	Air Basin Arithmetic Mean (ppbv)	Standard Deviation (ppbv)	Air Basin Mean of Monthly Means (ppbv)	Air Basin Maximum (ppbv)	Air Basin Minimum (ppbv)
SC	1990	5	0.588	0.636	0.576	5.000	0.030
SC	1991	5	0.529	0.694	0.530	6.800	0.040
SC	1992	5	0.411	0.263	0.409	1.500	0.020
SC	1993	5	0.424	0.389	0.422	1.700	0.010
SC	1994	5	0.383	0.387	0.386	2.100	0.010
SC	1995	5	0.368	0.327	0.368	1.700	0.030
SC	1996	5	0.309	0.264	0.309	1.500	0.010
SC	1997	5	0.279	0.187	0.255	1.200	0.020
SCC	1990	2	0.181	0.115	0.181	0.540	0.030
SCC	1991	2	0.157	0.116	0.160	0.670	0.040
SCC	1992	2	0.124	0.084	0.124	0.450	0.020
SCC	1993	2	0.094	0.086	0.095	0.580	0.020
SCC	1994	2	0.110	0.121	0.110	0.490	0.005
SCC	1995	2	0.101	0.093	0.100	0.440	0.020
SCC	1996	2	0.104	0.183	0.104	1.400	0.010
SCC	1997	2	0.082	0.073	0.082	0.300	0.010
SD	1990	2	0.280	0.201	0.280	1.100	0.050
SD	1991	2	0.260	0.210	0.261	1.300	0.040
SD	1992	2	0.261	0.186	0.262	0.800	0.060
SD	1993	2	0.190	0.166	0.193	0.890	0.020
SD	1994	2	0.201	0.251	0.204	1.600	0.005
SD	1995	2	0.244	0.432	0.244	3.200	0.020
SD	1996	2	0.134	0.128	0.133	0.580	0.020
SD	1997	2	0.128	0.114	0.124	0.500	0.010
SFBA	1990	5	0.197	0.162	0.197	1.000	0.030
SFBA	1991	5	0.235	0.255	0.235	1.700	0.020
SFBA	1992	5	0.173	0.225	0.172	1.600	0.020
SFBA	1993	5	0.128	0.147	0.128	1.100	0.010
SFBA	1994	5	0.086	0.086	0.086	0.440	0.005
SFBA	1995	5	0.098	0.129	0.098	1.100	0.010
SFBA	1996	5	0.067	0.077	0.067	0.600	0.005
SFBA	1997	5	0.074	0.095	0.070	0.500	0.005
SJV	1990	4	0.121	0.082	0.121	0.470	0.030

Air Basin	Year	Number of Sites	Air Basin Arithmetic Mean (ppbv)	Standard Deviation (ppbv)	Air Basin Mean of Monthly Means (ppbv)	Air Basin Maximum (ppbv)	Air Basin Minimum (ppbv)
SJV	1991	4	0.131	0.123	0.131	0.870	0.020
SJV	1992	4	0.104	0.088	0.105	0.790	0.030
SJV	1993	4	0.400	2.630	0.410	28.000	0.010
SJV*	1993	4	0.176	0.823	0.179	9.100	0.010
SJV	1994	5	0.069	0.113	0.067	1.100	0.005
SJV	1995	4	0.071	0.105	0.070	1.000	0.010
SJV	1996	4	0.064	0.142	0.064	1.500	0.005
SJV	1997	4	0.055	0.070	0.056	0.400	0.005
SS	1997	1	0.105	0.161	0.099	0.800	0.005
SV	1990	2	0.069	0.042	0.070	0.260	0.020
SV	1991	2	0.075	0.043	0.075	0.230	0.020
SV	1992	3	0.063	0.036	0.058	0.180	0.005
SV	1993	3	0.051	0.036	0.051	0.190	0.005
SV	1994	2	0.181	0.974	0.181	7.700	0.005
SV	1995	2	0.053	0.043	0.053	0.210	0.010
SV	1996	2	0.054	0.062	0.054	0.340	0.005
SV	1997	2	0.053	0.061	0.053	0.300	0.005

* SJV value with 28 ppbv value excluded

TABLE A-3
Site Identification Table
Site Number and Site Name, by Basin and County

ARB Site	Site Name	Air Basin	County
7000069	Burbank-W Palm Avenue	SC	LA
7000072	North Long Beach	SC	LA
7000087	Los Angeles-North Main Street	SC	LA
3300144	Riverside-Rubidoux	SC	RIV
3600175	Upland-San Bernardino Road	SC	SBD
4200388	Santa Barbara-W Carillo Street	SCC	SBA
5600434	Simi Valley-Cochran Street	SCC	VEN
8000114	Chula Vista	SD	SD
8000131	El Cajon-Redwood Avenue	SD	SD
6000336	Fremont-Chapel Way	SFBA	ALA
0700433	Richmond-13th Street	SFBA	CC
0700440	Concord-2975 Treat Blvd	SFBA	CC
0700445	San Pablo-El Portal	SFBA	CC
4300382	San Jose-4th Street	SFBA	SCL
9000306	San Francisco-Arkansas Street	SFBA	SF
1000246	Fresno-1st Street	SJV	FRE
1500255	Bakersfield-5558 California Avenue	SJV	KER
3900252	Stockton-Hazelton Street	SJV	SJ
5000568	Modesto-14th Street	SJV	STA
1300698	Calexico-Ethel Street	SS	IMP
0400628	Chico-Manzanita Avenue	SV	BUT
3100822	Roseville-N Sunrise Blvd	SV	PLA

Memorandum 2. Analysis and Population Exposure Estimates for Perchloroethylene Needs Assessment for Brake Cleaning Products (March 26, 1998)

Cal/EPA

California Environmental Protection

Air Resources Board

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MEMORANDUM

TO: Todd Wong
Stationary Source Division

FROM: Bob Effa
Technical Support Division

DATE: March 26, 1998

SUBJECT: ANALYSIS AND POPULATION EXPOSURE ESTIMATES FOR PERCHLOROETHYLENE NEEDS ASSESSMENT FOR BRAKE CLEANING PRODUCTS

This memorandum is in response to your request for an analysis of ambient perchlorethylene data and population-weighted exposure. It is our understanding that this analysis is to be used for a perc needs assessment of brake repair facilities to serve as the basis for determining whether an airborne toxic control measure (ATCM) is needed for these products. This analysis is based on ambient data, and as such, includes perchlorethylene emissions from all sources. There is no way to differentiate in the ambient air between perchloroethylene emissions from one source versus another. If the potential risk from brake cleaning products alone is to be assessed, the contribution from other sources would need to be quantified and subtracted from the ambient data.

BACKGROUND

This analysis is based on ambient data collected by the Air Resources Board (ARB) and compiled in the ARB Air Toxics database. The data used in this analysis cover the time period from January 2, 1990 to December 29, 1996. All data used in this analysis were extracted on November 14, 1997. As of February 25, 1998, there have been no changes to the data. This analysis does not reflect any changes that may have occurred since that time. The data used in this analysis are available on CD (*California Ambient Air Quality Data CD# TSD-97-008*) from the Technical Support Division (TSD).

DATA

Ambient Sampling and Analysis

Perchloroethylene data are collected by the ARB toxics sampling network, which currently consists of 21 monitoring sites located throughout the state. All data used in this analysis were collected during routine toxics pollutant monitoring. They come from a total of 24 sites. Seventeen of these sites have been in operation from 1990 to 1996. Three sites have been closed and replaced by three new sites in the same general area (Bakersfield-Chester Ave with Bakersfield-California Ave, Citrus Heights-Sunrise Blvd with Roseville N. Sunrise Blvd, and Chico-Salem St with Chico-Manzanita Ave). The 24th site, in Calexico, has been in operation since July, 1995. Since this site only has data for one complete year (1996), and this analysis examines perchloroethylene trends over 7 years, the data from this site were not used in this analysis. There is also a 25th site at Fresno-Olive St., but this site has only one observation and is being discarded. As noted, some sites have moved within air basin boundaries, and this move did not pose a problem for the purpose of our analysis.

The data analysis and population exposure estimates presented below are based on data collected from the ARB toxics sampling network. These data are collected over a 24 hour period every twelve days by the Monitoring and Laboratory Division (MLD). The data are analyzed by MLD staff using Method MLD052 (Cryogenic Trap Preconcentration with Capillary Column Gas Chromatography-PID/ECD Detectors). Perchloroethylene concentrations are measured using Electron Capture Detector (ECD).

The number of samples available per site during the study period ranged from 42 to 213 observations. Of the 4206 observations collected during this time, 35 were below the limit of detection (LOD) of 0.01 ppbv for the study period. These values pose a problem to the analysis but they cannot be ignored since a mean calculated without these observations would overestimate the true mean. To account for these below LOD values, we estimated their values to be ½ of the LOD.

Missing data points

In the course of analyzing the data for this analysis, we found that some data points were missing. This is to be expected, but it can pose problems to the analysis. If the pollutant being measured has seasonal patterns, and several points are missing from the same season, the analysis results could be skewed either high or low. If there are no data collected at a given site during a month, a mean of monthly means cannot be calculated for that year and the rest of the data for that site/year must be thrown out.

During this analysis, we encountered 8 sites with missing data as shown in Table 1. To develop the population-weighted perchloroethylene exposure estimates, we had to populate the data set with the most accurate data estimates available. We

used two different methods to estimate the missing data. The first method applied to five sites where data were missing for only one month, with data from adjacent months available. For these sites, we simply took the average of the monthly means from the two adjacent months to impute the missing values. The second method was applied to the remaining three sites. One site was missing only one month of data, but it did not have a value for the previous month available as it was the first month of our sample period (January 1990). The other two sites were missing a three month block of data. All three sites used the same methodology to estimate the missing data. For these sites, we took the mean of monthly means for the months of data available, and for the same months of data in an adjacent (following) year. From this data we calculated the ratio of the mean of monthly means. To complete the data set, we took the months with missing data and populated them with data from an adjacent (following) year. To correct for different magnitudes of emissions from the two years, this data was then adjusted using the ratio of mean of monthly means. For example, we will look at the January 1990 value. To estimate the missing value, we calculated a mean of monthly means using the remaining months of the year (1990) from the site with missing data. We then calculated a mean of monthly means for the following year (1991) using the same months of data. The next step was to calculate the ratio of means of monthly means to account for the difference in air quality for the two years of interest. The January (1990) monthly mean was then imputed by multiplying the January (1991) value by the ratio of the means of monthly means to more accurately describe the missing value.

A simpler approach would have been to calculate a mean value from the existing data. The problem with this approach is that you would effectively be populating the missing data with the average site value for the year. Thus, this would not reflect any seasonal patterns the data may possess, and would result in a less accurate estimate that could skew the analysis results.

TABLE 1

Perchloroethylene Data Analysis Missing Values in Data Set			
Site Name	Year	Month(s) Missing	Calculated Value(s)
Chula Vista	1996	September	0.127 ppbv
El Cajon-Redwood Ave	1994	December	0.458 ppbv
Richmond-13th St	1990	January	0.145 ppbv
San Francisco-Arkansas St	1990	May	0.174 ppbv

Perchloroethylene Data Analysis Missing Values in Data Set			
San Francisco-Arkansas St	1993	December	0.176 ppbv
Stockton-Hazelton St	1993	January	0.108 ppbv
Fresno-1st St	1990	January-March	0.140, 0.157, 0.077 ppbv
North Long Beach	1996	August-October	0.116, 0.168, 0.155 ppbv

Unusual Observation

The highest concentration reported during the study period was 28 ppbv at the Bakersfield-Chester St. site in the San Joaquin Valley Air Basin on February 12, 1993. The second highest concentration was 9.1 ppbv at the Bakersfield-Chester St. site on January 31, 1993. The 28 ppbv value is much higher than the remaining data collected and is subject to scrutiny. The Monitoring and Laboratory Division (MLD) checked and confirmed the value. There is no valid reason to discard the value, so it remains in our database. To assess the sensitivity of our estimates to such high concentrations, we performed two analyses by including or excluding the data point. When this value is compared to the remaining values at the Chester St. site, it is more than 21 times higher than the average for that site. A brief summary of the effects of this data point are shown in Table 2.

TABLE 2

Results of Perchloroethylene Data Analysis Bakersfield-Chester St Site for 1993			
	with 28 ppbv value	without 28 ppbv value	Percent Change
Site Arithmetic Mean Concentration	1.299 ppbv	0.378 ppbv	-71%
Air Basin Arithmetic Mean Concentration	0.400 ppbv	0.176 ppbv	-56%

Results of Perchloroethylene Data Analysis Bakersfield-Chester St Site for 1993			
Statewide Arithmetic Mean Concentration	0.253 ppbv	0.207 ppbv	-18%
Statewide Population-Weighted Exposure	0.322 ppb/year	0.301 ppb/year	-7%

Unless otherwise noted, all results presented in this report are calculated with the 28 ppbv value included.

Population Data

Population data used in the exposure analysis come from two sources: the 1990 census and the California Department of Finance (DOF). The census data is used in the South Coast and San Francisco Air Basins as an input to the population exposure weighting program, while the DOF data is used in all areas to represent the actual population. The study area for this analysis covers six air basins, and approximately 72% of the statewide population.

METHODOLOGY

The population exposure estimate consists of two parts. The first part is an estimate of the pollutant exposure in a given air basin. This will yield an average exposure for each air basin in the study. Due to data limitations, population exposure estimates were calculated differently for different air basins. For the South Coast Air Basin and the San Francisco Air Basin, the exposure estimates are calculated using a population exposure weighting program that interpolates site-specific mean of monthly mean perchloroethylene concentrations to population values assigned to census tract centroids (a census tract centroid is the approximate center of a United States Census Bureau census tract). The population exposure weighting program used 1990 census data in the South Coast and San Francisco Air Basins. There are no growth factors available by census tract, so 1990 census data was used for the population estimate for all years of the analysis.

For the other air basins for which we have data, the number of monitors are too limited to represent the entire air basin. For those areas, we limited our analysis to the counties which had monitors. First, we computed a "basin wide" mean concentration from the mean of monthly means of the basin. Then, we assumed that all people in counties with monitoring sites are exposed to this estimated mean annual concentration (i.e., if an air basin contains four counties, and only two of the counties

had monitors, the population of the two counties with monitors would be used in the exposure analysis). The population estimates for these areas of the study used DOF data for this step.

The results of this first step are presented in the top portion of Table 3. This is the population-weighted perchloroethylene exposure by air basin. For example, the per capita average concentration to which the population in the South Coast Air Basin were exposed during 1990 was 0.590 ppb. This declined to 0.330 ppb for 1996. For the San Joaquin Valley Air Basin, the average concentration for the population represented by the four counties included in the analysis was 0.121 ppb in 1990, dropping to 0.064 ppb in 1996.

The second step of the exposure calculation was the same for all air basins. The overall statewide population-weighted exposure was calculated by multiplying the estimated annual average perchloroethylene concentration for a given air basin by its population (represented as a fraction of the total of the air basin populations in this study). This value was calculated for each air basin in the study, and the results are summed to create an estimated overall statewide population-weighted exposure estimate. The DOF population figures are shown in the middle portion of Table 3.

RESULTS

The results of the exposure analysis are summarized in Table 3. The estimated statewide perchloroethylene exposure, shown at the bottom of the table, decreases from 0.382 to 0.203 ppbv from 1990 to 1996. The highest air basin concentrations (shown at the top of the table) occurred in the South Coast, where the annual mean perchloroethylene concentrations decreased from 0.590 ppbv in 1990 to 0.330 ppbv in 1996. The general trend for statewide is decreasing, except for a slight increase from 1992 to 1993 due to the 28 ppbv value in the San Joaquin Valley. If the 28 ppbv value is not included in the analysis, the trend decreases for all years.

TABLE 3

Estimated Air Basin Population-Weighted* Perchloroethylene Exposure ppb-year/person**							
Air Basin	1990	1991	1992	1993	1994	1995	1996
South Coast	0.590	0.542	0.430	0.472	0.410	0.392	0.330
South Central Coast	0.181	0.160	0.124	0.095	0.110	0.100	0.104
San Diego	0.280	0.261	0.262	0.193	0.204	0.244	0.133
San Francisco	0.196	0.223	0.158	0.124	0.082	0.091	0.068
San Joaquin Valley	0.121	0.131	0.105	0.410	0.067	0.070	0.064
Sacramento Valley	0.070	0.075	0.058	0.051	0.181	0.053	0.054
Air Basin Population Data Used in Calculating Statewide Perchloroethylene Exposure							
Air Basin	1990	1991	1992	1993	1994	1995	1996
South Coast	10684933	10910823	11124105	11206222	11298530	11372003	11441517
South Central Coast	1041100	1055600	1072600	1080800	1092900	1104100	1108500
San Diego	2511400	2560800	2611500	2625100	2650700	2669200	2694900
San Francisco	4324700	4377500	4451700	4511100	4543300	4569800	4649400
San Joaquin Valley	1977876	2040876	2097395	2130385	2158376	2192027	2226921
Sacramento Valley	1377350	1413279	1440859	1458943	1469597	1482705	1502236
SUM	21917359	22358878	22798159	23012550	23213403	23389835	23623474
Estimated Statewide Population-Weighted Perchloroethylene Exposure ppb-year/person**							
Statewide WTD AVG	0.382	0.362	0.290	0.322	0.262	0.251	0.203

* Only air basins with perchloroethylene monitoring included in this table. Air basin population-weighted exposure is calculated using mean of monthly means for all sites within basin.

** Population exposure units are a concentration for a given duration per person; For this analysis, the units are ppb-year/person.

In summary, this exposure analysis was developed with data from the six areas listed above. The South Coast and San Francisco Bay Area were population-weighted using census tract data, and the rest of the areas were population-weighted

using county (with monitoring data) population data. The six areas represent approximately 72% of the statewide population.

LIMITATIONS OF ANALYSIS

This analysis was designed to produce a statewide population-weighted perchloroethylene exposure. Ideally, to complete such an analysis, daily perchloroethylene concentrations from all areas of the state would be available. Unfortunately, this is not the case. Currently, our monitoring network operates on a one in twelve day sampling schedule, at only 21 sites within six air basins throughout California. At this time, the minimum number of sites and frequency of sampling required to accurately represent the true statewide exposure are uncertain. Therefore, caution should be exercised when using these exposure estimates.

SUMMARY TABLES IN APPENDIX

Annual summary statistics for each site during the study period are listed in the appendix in the Site Summary Table. These statistics include the annual site minimum, maximum, arithmetic mean, standard deviation, mean of monthly means, and number of observations. The annual mean concentration for the site is calculated as the mean of monthly means for the site. The standard deviation is calculated using all values rather than the monthly means. When a site contains a reading below the LOD for a particular year, the mean concentration and standard deviation are calculated using ½ LOD as an estimate for the below LOD value.

Basin-specific summary statistics are calculated on an annual basis and are listed in the Appendix in the Air Basin Summary Table. These statistics are calculated using the values from each site within an air basin. These statistics include the minimum and maximum, the arithmetic mean, standard deviation of values from all sites within the air basin, the mean of monthly site means, and the number of sites in the air basin.

cc: Bart Croes, TSD
Tom Lusk , TSD

APPENDIX

Site Summary Table
Annual Site Specific Summary Statistics

ARB SITE	YEAR	Air Basin	County	NO_ OBS	Site Mean (ppbv)	Standard Deviation (ppbv)	Mean of Monthly Mean (ppbv)	Site Maximum (ppbv)	Site Minimum (ppbv)
7000069	1990	SC	LA	31	1.193	1.087	1.191	5.000	0.200
7000069	1991	SC	LA	29	0.761	0.615	0.785	2.400	0.070
7000069	1992	SC	LA	30	0.615	0.305	0.609	1.500	0.110
7000069	1993	SC	LA	33	0.601	0.472	0.620	1.700	0.040
7000069	1994	SC	LA	29	0.641	0.530	0.663	2.100	0.040
7000069	1995	SC	LA	31	0.494	0.360	0.487	1.700	0.030
7000069	1996	SC	LA	30	0.428	0.230	0.440	1.400	0.090
7000072	1990	SC	LA	31	0.475	0.359	0.477	1.500	0.090
7000072	1991	SC	LA	29	0.341	0.292	0.355	1.100	0.040
7000072	1992	SC	LA	30	0.353	0.247	0.349	1.200	0.100
7000072	1993	SC	LA	32	0.384	0.462	0.433	1.500	0.010
7000072	1994	SC	LA	30	0.301	0.335	0.321	1.300	0.010
7000072	1995	SC	LA	31	0.317	0.346	0.318	1.600	0.030
7000072	1996	SC	LA	25	0.241	0.266	0.226	1.100	0.010
7000087	1990	SC	LA	29	0.545	0.256	0.551	1.100	0.240
7000087	1991	SC	LA	28	0.608	0.540	0.604	2.800	0.070
7000087	1992	SC	LA	31	0.519	0.209	0.536	1.000	0.200
7000087	1993	SC	LA	26	0.535	0.326	0.588	1.100	0.050
7000087	1994	SC	LA	30	0.522	0.425	0.503	2.000	0.030
7000087	1995	SC	LA	31	0.581	0.380	0.574	1.400	0.060
7000087	1996	SC	LA	28	0.492	0.315	0.502	1.500	0.120
3300144	1990	SC	RIV	28	0.235	0.127	0.237	0.440	0.030
3300144	1991	SC	RIV	29	0.266	0.200	0.276	0.870	0.060
3300144	1992	SC	RIV	30	0.200	0.119	0.201	0.420	0.020
3300144	1993	SC	RIV	29	0.199	0.167	0.198	0.700	0.020
3300144	1994	SC	RIV	31	0.184	0.181	0.191	0.950	0.020
3300144	1995	SC	RIV	31	0.183	0.146	0.177	0.530	0.030
3300144	1996	SC	RIV	31	0.178	0.200	0.176	1.100	0.040
3600175	1990	SC	SBD	27	0.434	0.201	0.423	1.000	0.210
3600175	1991	SC	SBD	28	0.675	1.233	0.717	6.800	0.150
3600175	1992	SC	SBD	27	0.360	0.180	0.364	0.680	0.070
3600175	1993	SC	SBD	29	0.392	0.286	0.398	1.100	0.040
3600175	1994	SC	SBD	31	0.284	0.165	0.286	0.820	0.030
3600175	1995	SC	SBD	31	0.265	0.143	0.263	0.550	0.060

ARB SITE	YEAR	Air Basin	County	NO_ OBS	Site Mean (ppbv)	Standard Deviation (ppbv)	Mean of Monthly Mean (ppbv)	Site Maximum (ppbv)	Site Minimum (ppbv)
3600175	1996	SC	SBD	28	0.203	0.122	0.199	0.530	0.050
4200388	1990	SCC	SBA	27	0.171	0.117	0.176	0.540	0.040
4200388	1991	SCC	SBA	34	0.133	0.093	0.124	0.420	0.040
4200388	1992	SCC	SBA	28	0.098	0.057	0.095	0.310	0.020
4200388	1993	SCC	SBA	31	0.075	0.055	0.075	0.280	0.020
4200388	1994	SCC	SBA	30	0.092	0.118	0.095	0.490	LOD
4200388	1995	SCC	SBA	29	0.075	0.062	0.082	0.280	0.020
4200388	1996	SCC	SBA	30	0.120	0.253	0.120	1.400	0.010
5600434	1990	SCC	VEN	29	0.190	0.115	0.199	0.520	0.030
5600434	1991	SCC	VEN	28	0.186	0.136	0.192	0.670	0.040
5600434	1992	SCC	VEN	29	0.149	0.097	0.152	0.450	0.020
5600434	1993	SCC	VEN	28	0.116	0.108	0.111	0.580	0.020
5600434	1994	SCC	VEN	29	0.129	0.124	0.122	0.490	0.010
5600434	1995	SCC	VEN	31	0.126	0.110	0.125	0.440	0.020
5600434	1996	SCC	VEN	30	0.087	0.058	0.088	0.300	0.030
8000114	1990	SD	SD	31	0.235	0.107	0.236	0.480	0.080
8000114	1991	SD	SD	30	0.228	0.129	0.229	0.530	0.060
8000114	1992	SD	SD	30	0.213	0.130	0.208	0.650	0.060
8000114	1993	SD	SD	31	0.141	0.110	0.144	0.530	0.020
8000114	1994	SD	SD	31	0.123	0.121	0.132	0.510	LOD
8000114	1995	SD	SD	29	0.147	0.133	0.146	0.540	0.020
8000114	1996	SD	SD	27	0.124	0.100	0.129	0.450	0.020
8000131	1990	SD	SD	31	0.324	0.258	0.329	1.100	0.050
8000131	1991	SD	SD	29	0.293	0.268	0.308	1.300	0.040
8000131	1992	SD	SD	29	0.311	0.222	0.319	0.800	0.060
8000131	1993	SD	SD	28	0.245	0.200	0.256	0.890	0.020
8000131	1994	SD	SD	29	0.285	0.321	0.291	1.600	0.010
8000131	1995	SD	SD	29	0.342	0.585	0.352	3.200	0.040
8000131	1996	SD	SD	30	0.142	0.149	0.168	0.580	0.020
6000336	1990	SFBA	ALA	30	0.187	0.137	0.189	0.550	0.040
6000336	1991	SFBA	ALA	30	0.210	0.146	0.210	0.540	0.020
6000336	1992	SFBA	ALA	30	0.136	0.119	0.134	0.630	0.030
6000336	1993	SFBA	ALA	30	0.114	0.103	0.114	0.450	0.010
6000336	1994	SFBA	ALA	31	0.095	0.072	0.086	0.290	LOD
6000336	1995	SFBA	ALA	30	0.121	0.077	0.118	0.290	0.030
6000336	1996	SFBA	ALA	31	0.068	0.043	0.069	0.210	0.010
0700433	1990	SFBA	CC	29	0.121	0.070	0.121	0.300	0.030
0700433	1991	SFBA	CC	29	0.148	0.077	0.147	0.310	0.030
0700433	1992	SFBA	CC	29	0.097	0.055	0.094	0.240	0.020
0700433	1993	SFBA	CC	30	0.092	0.081	0.092	0.420	0.020

ARB SITE	YEAR	Air Basin	County	NO_ OBS	Site Mean (ppbv)	Standard Deviation (ppbv)	Mean of Monthly Mean (ppbv)	Site Maximum (ppbv)	Site Minimum (ppbv)
0700433	1994	SFBA	CC	31	0.057	0.057	0.056	0.260	LOD
0700433	1995	SFBA	CC	30	0.043	0.025	0.043	0.100	0.010
0700433	1996	SFBA	CC	31	0.030	0.023	0.031	0.090	LOD
0700440	1990	SFBA	CC	28	0.325	0.248	0.337	1.000	0.040
0700440	1991	SFBA	CC	29	0.438	0.450	0.419	1.700	0.030
0700440	1992	SFBA	CC	31	0.391	0.404	0.390	1.600	0.040
0700440	1993	SFBA	CC	30	0.207	0.254	0.204	1.100	0.010
0700440	1994	SFBA	CC	32	0.102	0.099	0.098	0.390	LOD
0700440	1995	SFBA	CC	30	0.157	0.242	0.147	1.100	0.020
0700440	1996	SFBA	CC	31	0.082	0.112	0.082	0.600	0.010
4300382	1990	SFBA	SCL	27	0.163	0.127	0.161	0.530	0.050
4300382	1991	SFBA	SCL	28	0.152	0.098	0.153	0.410	0.040
4300382	1992	SFBA	SCL	31	0.100	0.073	0.100	0.370	0.030
4300382	1993	SFBA	SCL	30	0.096	0.088	0.094	0.310	0.010
4300382	1994	SFBA	SCL	31	0.072	0.091	0.064	0.440	LOD
4300382	1995	SFBA	SCL	30	0.074	0.070	0.069	0.350	0.020
4300382	1996	SFBA	SCL	31	0.069	0.079	0.068	0.310	LOD
9000306	1990	SFBA	SF	28	0.191	0.103	0.199	0.390	0.040
9000306	1991	SFBA	SF	26	0.226	0.182	0.229	0.810	0.030
9000306	1992	SFBA	SF	31	0.133	0.081	0.131	0.360	0.030
9000306	1993	SFBA	SF	28	0.133	0.108	0.133	0.480	0.010
9000306	1994	SFBA	SF	30	0.105	0.100	0.105	0.390	0.010
9000306	1995	SFBA	SF	29	0.097	0.083	0.092	0.380	0.020
9000306	1996	SFBA	SF	31	0.084	0.085	0.084	0.420	0.010
1000246	1990	SJV	FRE	27	0.117	0.095	0.119	0.470	0.040
1000246	1991	SJV	FRE	30	0.140	0.128	0.142	0.690	0.020
1000246	1992	SJV	FRE	30	0.103	0.055	0.102	0.270	0.040
1000246	1993	SJV	FRE	30	0.098	0.091	0.100	0.450	0.020
1000246	1994	SJV	FRE	31	0.063	0.067	0.062	0.250	LOD
1000246	1995	SJV	FRE	30	0.068	0.071	0.065	0.310	0.020
1000246	1996	SJV	FRE	31	0.040	0.029	0.041	0.150	0.010
1500203	1990	SJV	KER	32	0.093	0.058	0.087	0.290	0.030
1500203	1991	SJV	KER	29	0.126	0.112	0.127	0.520	0.030
1500203	1992	SJV	KER	31	0.077	0.043	0.075	0.200	0.030
1500203	1993	SJV	KER	30	1.299	5.306	1.481	28.000	0.010
1500203*	1993	SJV	KER	29	0.378	1.678	0.317	9.100	0.010
1500203	1994	SJV	KER	9	0.059	0.060	0.050	0.210	0.020
1500255	1994	SJV	KER	23	0.054	0.072	0.055	0.330	LOD
1500255	1995	SJV	KER	32	0.098	0.182	0.092	1.000	0.010
1500255	1996	SJV	KER	32	0.104	0.264	0.119	1.500	LOD

* Site 1500203 without 28 ppbv value included

ARB SITE	YEAR	Air Basin	County	NO_ OBS	Site Mean (ppbv)	Standard Deviation (ppbv)	Mean of Monthly Mean (ppbv)	Site Maximum (ppbv)	Site Minimum (ppbv)
3900252	1990	SJV	SJ	30	0.129	0.068	0.129	0.300	0.040
3900252	1991	SJV	SJ	29	0.115	0.050	0.113	0.220	0.040
3900252	1992	SJV	SJ	28	0.120	0.076	0.120	0.380	0.040
3900252	1993	SJV	SJ	34	0.125	0.173	0.120	0.860	0.020
3900252	1994	SJV	SJ	31	0.066	0.062	0.066	0.240	LOD
3900252	1995	SJV	SJ	30	0.063	0.044	0.061	0.220	0.020
3900252	1996	SJV	SJ	31	0.069	0.075	0.068	0.350	0.010
5000568	1990	SJV	STA	31	0.144	0.097	0.145	0.370	0.040
5000568	1991	SJV	STA	30	0.142	0.173	0.150	0.870	0.020
5000568	1992	SJV	STA	31	0.120	0.140	0.118	0.790	0.030
5000568	1993	SJV	STA	30	0.116	0.178	0.109	0.850	0.020
5000568	1994	SJV	STA	31	0.093	0.198	0.087	1.100	LOD
5000568	1995	SJV	STA	30	0.052	0.053	0.053	0.230	0.010
5000568	1996	SJV	STA	31	0.043	0.042	0.044	0.220	0.010
0400628	1992	SV	BUT	16	0.053	0.033	0.051	0.120	LOD
0400628	1993	SV	BUT	30	0.056	0.046	0.057	0.190	LOD
0400628	1994	SV	BUT	31	0.299	1.376	0.266	7.700	LOD
0400628	1995	SV	BUT	30	0.052	0.052	0.047	0.210	0.010
0400628	1996	SV	BUT	31	0.048	0.054	0.049	0.260	LOD
0400633	1990	SV	BUT	29	0.047	0.016	0.047	0.080	0.020
0400633	1991	SV	BUT	28	0.055	0.025	0.054	0.110	0.020
0400633	1992	SV	BUT	15	0.047	0.024	0.046	0.090	0.020
3100822	1993	SV	PLA	23	0.045	0.024	0.045	0.090	0.010
3100822	1994	SV	PLA	31	0.062	0.080	0.065	0.440	LOD
3100822	1995	SV	PLA	30	0.054	0.034	0.051	0.160	0.010
3100822	1996	SV	PLA	30	0.060	0.070	0.061	0.340	0.010
3400293	1990	SV	SAC	28	0.092	0.049	0.095	0.260	0.040
3400293	1991	SV	SAC	29	0.095	0.047	0.094	0.230	0.030
3400293	1992	SV	SAC	31	0.075	0.039	0.076	0.180	0.020
3400293	1993	SV	SAC	6	0.053	0.010	0.054	0.070	0.040

Air Basin Summary Table

Air Basin Annual Summary Statistics

Air Basin	Year	Number of Sites	Air Basin Arithmetic Mean (ppbv)	Standard Deviation (ppbv)	Air Basin Mean of Monthly Means (ppbv)	Air Basin Maximum (ppbv)	Air Basin Minimum (ppbv)
SC	1990	5	0.588	0.636	0.576	5.000	0.030
SC	1991	5	0.529	0.694	0.530	6.800	0.040
SC	1992	5	0.411	0.263	0.409	1.500	0.020
SC	1993	5	0.424	0.389	0.422	1.700	0.010
SC	1994	5	0.383	0.387	0.386	2.100	0.010
SC	1995	5	0.368	0.327	0.368	1.700	0.030
SC	1996	5	0.309	0.264	0.309	1.500	0.010
SCC	1990	2	0.181	0.115	0.181	0.540	0.030
SCC	1991	2	0.157	0.116	0.160	0.670	0.040
SCC	1992	2	0.124	0.084	0.124	0.450	0.020
SCC	1993	2	0.094	0.086	0.095	0.580	0.020
SCC	1994	2	0.110	0.121	0.110	0.490	0.005
SCC	1995	2	0.101	0.093	0.100	0.440	0.020
SCC	1996	2	0.104	0.183	0.104	1.400	0.010
SD	1990	2	0.280	0.201	0.280	1.100	0.050
SD	1991	2	0.260	0.210	0.261	1.300	0.040
SD	1992	2	0.261	0.186	0.262	0.800	0.060
SD	1993	2	0.190	0.166	0.193	0.890	0.020
SD	1994	2	0.201	0.251	0.204	1.600	0.005
SD	1995	2	0.244	0.432	0.244	3.200	0.020
SD	1996	2	0.134	0.128	0.133	0.580	0.020
SFBA	1990	5	0.197	0.162	0.197	1.000	0.030
SFBA	1991	5	0.235	0.255	0.235	1.700	0.020
SFBA	1992	5	0.173	0.225	0.172	1.600	0.020
SFBA	1993	5	0.128	0.147	0.128	1.100	0.010
SFBA	1994	5	0.086	0.086	0.086	0.440	0.005
SFBA	1995	5	0.098	0.129	0.098	1.100	0.010
SFBA	1996	5	0.067	0.077	0.067	0.600	0.005
SJV	1990	4	0.121	0.082	0.121	0.470	0.030
SJV	1991	4	0.131	0.123	0.131	0.870	0.020
SJV	1992	4	0.104	0.088	0.105	0.790	0.030
SJV	1993	4	0.400	2.630	0.410	28.000	0.010
SJV*	1993	4	0.176	0.823	0.179	9.100	0.010
SJV	1994	5	0.069	0.113	0.067	1.100	0.005
SJV	1995	4	0.071	0.105	0.070	1.000	0.010
SJV	1996	4	0.064	0.142	0.064	1.500	0.005
SV	1990	2	0.069	0.042	0.070	0.260	0.020

* SJV value with 28 ppbv value excluded

Air Basin	Year	Number of Sites	Air Basin Arithmetic Mean (ppbv)	Standard Deviation (ppbv)	Air Basin Mean of Monthly Means (ppbv)	Air Basin Maximum (ppbv)	Air Basin Minimum (ppbv)
SV	1991	2	0.075	0.043	0.075	0.230	0.020
SV	1992	3	0.063	0.036	0.058	0.180	0.005
SV	1993	3	0.051	0.036	0.051	0.190	0.005
SV	1994	2	0.181	0.974	0.181	7.700	0.005
SV	1995	2	0.053	0.043	0.053	0.210	0.010
SV	1996	2	0.054	0.062	0.054	0.340	0.005

* SJV value with 28 ppbv value excluded

Appendix F

Selection of Specific and Generic Facilities for ISCST3 Modeling

Appendix F. Selection of Specific and Generic Facilities for ISCST3 Modeling

The majority of the modeling performed was done using the SCREEN3 air dispersion model because it is easy to use and allows the consideration of many modeling scenarios in a relatively short period of time. The ISCST3 air dispersion models offers the opportunity to perform a more refined analysis of a facility's potential risk; however, modeling scenarios considered under this model are more resource intensive. As a result, only a limited number of facilities could be selected for modeling using ISCST3. Thirteen specific facilities from the site visits as well as 3 generic facilities that were developed to represent a broad range of facilities statewide, were selected. This appendix outlines how the specific facilities were selected, how the generic facilities were developed, and how representative product formulations for the generic facilities were derived.

A. Selection of the 13 Specific Facilities

The main goal in selecting the 13 specific facilities was to obtain good representation of the five facility types (general automotive, fleets, service stations, dedicated brake shops, and dealerships) defined in the Status Report (ARB, 1997a) in several locations throughout the state with good population densities. In order to conduct this type of analysis, meteorological (met) and census data needs to be available for any selected area; therefore, facilities located in areas without met data or good census information could not be candidates for selection.

Another goal was to select facilities representing five key population areas revealed by the site visits. Those areas are: Sacramento, Los Angeles, the San Francisco Bay Area, San Joaquin Valley, and the North State area. Combined, these regions represent mostly urban areas which is appropriate because the majority of California's population lives in largely urban areas. Additionally, potential residential and business receptors in these areas tend to be located nearby the automotive maintenance and repair facilities.

The site visits showed that 55 facilities were using chlorinated products, all of which were modeled using the SCREEN3 air dispersion model. Thirty-two of these facilities showed potential risks greater than 10 chances per million (based on Perc usage and modeling using SCREEN3). The 10 chances per million level was selected because it is a common public risk notification level used in many local air districts; it should not be construed as any sort of regulatory guideline. Since public health protection is a major concern, the higher risk facilities were selected as candidates for ISCST3 modeling so long as the above criteria was able to be satisfied. As a result, facilities with lower risk values were selected in some cases to ensure that all the facility types and the five population areas were represented. Using these criteria, 13 specific facilities were selected. Table F-1 summarizes the five regions, the selected met sets for each region, and the represented facility types.

Table F-1. Met Data Sets and Facility Types per Region

Geographic Region	Met Data Sets	Facility Types
Los Angeles	Anaheim 1981 Burbank 1958-62 LAX 1985-89	General Automotive
North State	Redding 1987-89	General Automotive
Sacramento	Sac Exec 1987, 1989-92 Mather AFB 1953-57 McClellan AFB 1953-57	Brake Shop Fleet
San Francisco Bay Area	Concord 1991-96 Oakland 1960-64	General Automotive
San Joaquin Valley	Fresno 1985-89	Dealership Service Station

B. Development of the 3 Generic Facilities

The purpose of developing the 3 generic facilities was to provide a mechanism for estimating potential health impacts for all facilities statewide, including facilities located in areas where met data is not available. The basis for the generic facilities came from the 137 site visits, the statewide survey of automotive maintenance and repair facilities, as well as follow-up visits and telephone calls used to verify collected information. Using this information, the universe of facilities was separated into three representative groups: generic facility G-01 (small), generic facility G-02 (medium), and generic facility G-03 (large).

The site visit data was analyzed to determine the source characteristics of the generic facilities. Several approaches were considered including averaging the facility volumes over a specified range and focusing on the smaller facility volumes. These approaches were rejected because they would have either underestimated or overestimated potential health impacts. The data revealed that product usage was not related to facility size which means that both low and high usage rates can be found at small and large facilities. Additionally, a comparison of the facility volumes showed gaps that naturally separated the facilities into five groupings or facility size ranges. The very smallest group and largest group of facilities were excluded to avoid unnecessarily underestimating or overestimating potential health impacts. This approach created a rough cut of facility sizes for each generic facility.

Due to the limited availability of modeling resources, one representative building size needed to be selected for each of the three facility size ranges. Before selecting the discrete building size, however, the number of brake jobs that were being performed in each facility size

range was examined (note: a typical brake job can consist of either one-axle or two-axle jobs). The data showed that the overall number of brake jobs ranged from 1 to 160 jobs per week and that facilities doing more brake work (and therefore using more chlorinated product) populated all three size ranges. An interesting observation was that the facility with the greatest number of brake jobs was at the lower end of each size range (in terms of facility volume) which indicates that facilities at the higher end of the size range would most likely be able to handle the same throughput. It also means that setting the building size for each generic facility at the lower end of the range would not overestimate potential health impacts. As a result, the building dimensions were set at the lower end of each facility size range. The throughput of brake jobs was then set to approximate the throughput at the lower end facilities. While the throughput of brake jobs for these facilities is higher than others in the range, it creates a health-protective facility that can effectively handle the variations in usage rates. It also allows for the capture of product use on other activities and, therefore, is a more realistic model of total product usage that minimizes the frequency that a generic facility would underestimate potential health impacts. Table F-2 summarizes what had been developed at this point.

Table F-2. Proposed Generic Facilities

Facility	Facility Size Range (by volume)	Proposed Representative Volume	Number of Brake Jobs at Proposed Volume [per week]
G-01	453 m^3 to 2140 m^3	453 m^3	18
G-02	2230 m^3 to 8494 m^3	2230 m^3	58
G-03	9241 m^3 to 37167 m^3	10157 m^3	54

Now that the generic facilities had been roughly identified, several quality control checks were employed to verify that the building dimensions and throughput of brake jobs were set properly and could adequately characterize automotive service and repair facilities statewide. Sales by facility size and number of service bays reported in the May 1996 Brake & Front End Brake Repair Survey (MarketScope, 1996) were compared to site visit data to check for consistency. This check underscores that the facility size ranges for the generic facilities are consistent with trends that have been observed nationwide. Additionally, the number of bays that were dedicated to brake work were compared with site visit data to determine if they were consistent with the generic volumes and reported number of jobs per week. This comparison was necessary to minimize the possibility that a generic facility would assume that a facility would be doing more work than it was physically capable of doing. Finally, a random selection of respondents to the Automotive Service Facility Questionnaire (Facility Survey) were polled to verify the accuracy of the reported data (a copy of the survey form can be found in Appendix B). Additional site visits were then made to several of these facilities to obtain source characteristic information. The information obtained from these additional site visits confirmed that the

building dimensions and throughput of brake jobs for the generic facilities was reasonable.

In order to gain an idea of the statewide representativeness of the generic facilities, the sales/service bay distribution reported in the May 1996 Brake & Front End Brake Repair Survey (MarketScope, 1996) and the distribution of the number of service bays per facility reported in the Norton study (Norton, 1993) was compared to the ARB data. With this information, it was estimated that generic facility G-01 represents approximately 37% of California automotive service facilities, G-02 represents approximately 43%, and G-03 represents approximately 20%. Table F-2 summarizes the generic facility characteristics that were used in the modeling scenarios under ISCST3. A summary of the generic facility modeling results, including modeling input parameters and assumptions, are presented in Appendix D.

Table F-3. Summary of Generic Facility Characteristics

Facility	Brake Job Range [per week]	Facility Volume [m^3]	Height [m]	Length [m]	Width [m]	Number of Brake Jobs [per week]	Represented Facility Types
G-01	1 to 75	453	4.9	12.2	7.6	20	Brake Shop Dealership General Automotive Service Station
G-02	1 to 115	2230	7.6	21.3	13.7	60	Brake Shop Dealership Fleet General Automotive Service Station
G-03	1 to 160	10157	7.6	62.5	21.3	60	Dealership Fleet General Automotive

C. Development of Perc, MeCl, and TCE Usage Rates in Brake Cleaners, Carburetor Cleaners, Engine Degreasers, and General Degreasers

An important observation made during the site visits was that products labeled as brake cleaners, carburetor cleaners, engine degreasers, and general degreasers were often used on a variety of tasks. For example, several facilities reported using aerosol brake cleaning products to do engine degreasing work while others used general degreasers to clean brake parts. Many technicians indicated that this cross usage occurs because the products in each of these categories are designed to remove grime, grease, oil and dirt and, therefore, are suitable for tasks for which they may not be labeled.

Since products from these categories represent a varying range of compositions with regard to Perc, MeCl, and TCE, each category was separated into representative formulations based on available data. The data sources for this exercise where the Facility Survey and the 1997 Consumer and Commercial Products Survey. The Facility Survey provided information on product usage rates and was used to estimate the average cans per week of product usage in each category. Formulation information was also extracted from this database. The 1997 Consumer and Commercial Products Survey also contained formulation information as well as sales information. The sales information was used to weight the relative contributions of the formulations into one composite. The site visits also provided usage and formulation information on brake cleaning products.

In order to simplify the presentation of data associated with this task, the contributions to total generic facility risk from carburetor cleaners, engine degreasers, and general degreasers is combined into two health impact estimates for each generic facility: one estimate for default meteorology and another which is the average of the health impacts for the 10 specific met locations. Since more information was available for brake cleaners than the other three categories, the representative formulations derived for this category are used discretely for each met set including the default. A summary of the representative product formulations used is presented in Table F-4.

Table F-4. Representative Product Formulations Used in Generic Facility Modeling

Product Category			
Brake Cleaners	**Carburetor Cleaners**	**Engine Degreasers**	**General Degreasers**
All met locations: ➜ 94% Perc ➜ 65% Perc Four met locations[1]: ➜ 55% Perc, 25% MeCl ➜ 40% Perc, 30% MeCl, 20% TCE ➜ 55% Perc, 43% TCE	Single composite based on[2]: ➜ 68% Perc ➜ 57% MeCl	Single composite based on[2]: ➜ 47% Perc ➜ 99% TCE	Single composite based on[2]: ➜ 24% Perc ➜ 41% Perc, 55% MeCl ➜ 46% MeCl ➜ 97% TCE

1. Burbank, Anaheim, Oakland and default met for chronic effects; Fresno, Concord, Mather, and default met for acute effects.
2. Composite is based on average of 10 met sets. Default meteorology is considered independently.

In order to estimate the total health impacts (or some desired subset) at a generic facility, the individual contributions must be added. For example, let's assume that we are looking at generic facility G-01 located in the Burbank, California area where a 94% Perc brake product is being used. Let's assume further that this facility also uses products from the other three product categories and that we are interested in estimating potential health impacts at 20 meters from the center of the facility. Using Appendix D, we would look up the corresponding health impact values. Table F-5 summarizes the calculation method and provides give the results.

Table F-5. Facility G-01 Health Impacts at Burbank at 20 Meters Using a 94% Perc Aerosol Brake Cleaning Product and other Automotive Consumer Products

Product Category	Potential Cancer Risk [chances per million]		Hazard Index	
	Resident	Worker	Acute	Chronic
94% Perc Brake Cleaner[1]	47.41	20.18	0.0727	0.2296
Carburetor Cleaner	0.74	0.32	0.0164	0.0017
Engine Degreaser	2.19	0.93	0.0109	0.0061
General Purpose Degreaser	1.37	0.58	0.0040	0.0017
Total Impacts:	**51.71**	**22.01**	**0.1040**	**0.2391**

1. These health values assume a 20 brake job per week throughput and 1 19-oz can per job used. Please see Appendix D for more information.

If we consider the same example but instead assume that a multicomponent brake cleaning product containing 55% Perc and 25% MeCl is being used, Table F-6 would then summarize the calculation method and provide the results for this scenario.

Table F-6. Facility G-01 Health Impacts at Burbank at 20 Meters Using a Multicomponent Aerosol Brake Cleaning Product and other Automotive Consumer Products

Product Category	Potential Cancer Risk [chances per million]		Hazard Index	
	Resident	Worker	Acute	Chronic
55% Perc, 25% MeCl Brake Cleaner[1]	29.87	12.71	0.0701	0.2303
Carburetor Cleaner	0.74	0.32	0.0164	0.0017
Engine Degreaser	2.19	0.93	0.0109	0.0061
General Purpose Degreaser	1.37	0.58	0.0040	0.0017
Total Impacts:	**34.17**	**14.54**	**0.1014**	**0.2398**

1. These health values assume a 20 brake job per week throughput and 1 19-oz can per job used. Please see Appendix D for more information.

Using these examples as a guideline in conjunction with the data in Appendix D, the total potential health impacts at a generic facility under a variety of conditions can be estimated.

It is expected that the usage estimates for carburetor cleaners, engine degreasers, and general degreasers underestimate their contribution to the overall risk. This expectation is based on the limited data available with regard to product usage rates in these categories. Due to this limitation, usage rates were capped at three and one-third (3⅓)14-ounce cans per week for carburetor cleaners, three 18-ounce cans per week for engine degreasers, and three 16-ounce cans for general degreasers. These amounts are the average usage rates for each category found in the Facility Survey supported by sales data in the 1997 Consumer and Commercial Products Survey. While it seems reasonable that these products would most likely be used at a greater rate than indicated here, the ARB currently does not possess sufficient data to justify higher usage rates. As a result, potential health impacts from these three categories may be underestimated by an unknown degree.

REFERENCES FOR APPENDIX F

ARB, 1997a. Perchloroethylene Need Assessment for Automotive Consumer Products: Status Report, California Air Resources Board, June 1997.

MarketScope, 1996. "1996 Brake Repair Study", prepared by MarketScope for Brake and Front End Magazine, May 1996.

Norton, 1993. "Usage of Chemical Brake Cleaners in Automotive Repair Facilities", John Norton, School of Business Administration, George Mason University, Fairfax, VA, November 8, 1993.

Appendix G

Compounds in Products

Appendix G. Compounds in Products

The compounds listed in Table H-1 were compiled from material safety data sheets of brake cleaners, carburetor and air intake cleaners, engine degreasers and general purpose degreasers that are currently being used in California or were stated as being used in responses to the Automotive Service Facility Questionnaire (Automotive Survey).

Table G-1. Compounds Currently Found In Automotive Consumer Products

COMPOUND NAME	CAS No.[1]	VOC [2]	TAC [3]	Candidate TAC [4]	URF [5]	AREL [6]	CREL [7]
Acetone	67641						
Aliphatic Petroleum Distillates (Petroleum Naphtha)	64742898	Yes					
Ammonia	7664417			Yes		3.20e+03	1.00e+02
Aromatic Solvent (petroleum)	68477316	Yes					
Benzene	71432	Yes	Yes		2.90e-05	1.30e+03	7.10e+01
Butane	106978	Yes					
Butanol	78922	Yes		Yes			
2-Butoxyethanol (EGBE; Ethylene Glycol Monobutyl Ether)	111762	Yes				1.40e+04	2.00e+01
1,2 Butylene Oxide (inhibitor) (1,2 Epoxybutane)	106887	Yes	Yes				2.00e+01
Carbon Dioxide	124389						
2-Chlorotoluene	95498	Yes					
Cyclohexane	110827	Yes		Yes			
Diacetone Alcohol	123422	Yes					
Diesel no. 2	68476346	Yes					
Diethylene Glycol Mono-Butyl Ether	112345	Yes					
Dimethoxymethane (inhibitor)	109875	Yes					
1,3-Dioxolane	646060	Yes					
Dipentane	68956569	Yes					
Dipropylene Glycol Methyl Ether	34590948	Yes					

Table G-1. Compounds Currently Found In Automotive Consumer Products (cont.)

COMPOUND NAME	CAS No.[1]	VOC [2]	TAC [3]	Candidate TAC [4]	URF [5]	AREL [6]	CREL [7]
2-Ethanol-1,3-Hexanediol	94962	Yes					
Ethoxylated Alkyl Amine Nonionic Surfactant	9036195	Yes					
Ethyl Acetate	141786	Yes					
Ethyl Benzene	100414	Yes	Yes				1.00e+03
Heavy Aromatic Solvent Naptha	64742945	Yes					
Heptane	142825	Yes					
Hexane	110543	Yes	Yes				2.00e+02
Hydrocarbon Propellant A-46 (Propane/ Isobutane)	68476868	Yes					
Hydrocarbon Propellant A-85	684768857	Yes					
Hydrotreated Heavy Naphtha	64742489	Yes					
Hydrotreated Heavy Paraffinic Distillate (Petroleum)	64742547	Yes					
Hydrotreated Light Petroleum Distillates	64742478	Yes					
Isobutane	75285	Yes					
Isohexane	107835	Yes					
Isopropyl Alcohol	67630	Yes		Yes		3.20e+03	
Kerosene (fuel oil #1)	8008206	Yes					
Light Aromatic Solvent Naphtha	64742956	Yes					
d-Limonene	5989275	Yes					
Medium Aliphatic Solvent Naphtha	64742887	Yes					
Methanol	67561	Yes	Yes			2.80e+04	6.20e+02
Methyl Chloroform (1,1,1-Trichloroethane)	71556		Yes			6.80e+04	3.20e+02
Methyl Ethyl Ketone (2-Butanone)	78933	Yes	Yes			1.30e+04	1.00e+03
Methyl Isobutyl Ketone	108101	Yes	Yes				

Table G-1. Compounds Currently Found In Automotive Consumer Products (cont.)

COMPOUND NAME	CAS No.[1]	VOC [2]	TAC [3]	Candidate TAC [4]	URF [5]	AREL [6]	CREL [7]
4-Methyl-2-Pentanol (Methyl Amyl Alcohol)	108112	Yes					
n-Methyl Pyrrolidone	872504	Yes					
Methylene Chloride	75092		Yes		1.00e-06	1.40e+04	3.00e+03
Mineral Oil	8012951	Yes					
Mineral Spirits; Stoddard Solv.; Petroleum Distillates	8052413	Yes					
Monochlorotoluene	25168052	Yes					
Monoethanolamine	141435	Yes					
Monoisopropylbiphenols	25640782	Yes					
Morpholine	110918	Yes					
Naphtha (Benzin)	8030306	Yes					
Naphthalene	91203	Yes	Yes				1.40e+01
Nonane	111842	Yes					
Nonionic Surfactant NP4/NP9 (p-Nonylphenol Polyethylene Glycol Ether)	26027383	Yes					
9-Octadecenoic Acid (2)-Ammonium Salt	544605	Yes					
Octylphenolpolyethoxylate	9004879	Yes					
Oleic Acid	112801	Yes					
Perchloroethylene	127184		Yes		5.90e-06	2.00e+04	3.50e+01
Petroleum Products Liquified Gas Sweetened	68476868	Yes					
Primary Alcohol Ethoxylate	68131395	Yes					
Propane	74986	Yes					
Propane/ Isobutane/ n-Butane	68476857	Yes					
2-Propanol Titanate	546689	Yes					
Propylene Glycol	5131668	Yes					

Table G-1. Compounds Currently Found In Automotive Consumer Products (cont.)

COMPOUND NAME	CAS No.[1]	VOC [2]	TAC [3]	Candidate TAC [4]	URF [5]	AREL [6]	CREL [7]
Propylene Glycol Monomethyl Ether (Glycol Ether)	107982	Yes					2.00e+03
Propylene Glycol T-Butyl Ether	57018527	Yes					
Sodium Benzoate	532321						
Sodium Metasilicate	10213793						
Tergitol np-40 (Nonylphenoxypoly(ethylene oxy)ethanol)	9016459	Yes					
tert-Butyl Alcohol (inhibitor)	75650	Yes		Yes			
Tetrapotassium Pyrophosphate	7320345						
Toluene	108883	Yes	Yes			3.70e+04	4.00e+02
Trichloroethylene	79016	Yes	Yes		2.00e-06		6.40e+02
1,2,4 Trimethylbezene	95636	Yes		Yes			
Trimethylbenzene	25551137	Yes					
Water	7732185						
Xylene	1330207	Yes	Yes			2.20e+04	3.00e+02

1. Chemical Abstract Service (CAS) number.
2. Volatile Organic Compound as defined in the Glossary (Appendix I).
3. Substances identified as Toxic Air Contaminants by the Air Resources Board, pursuant to the provisions of AB 1807 and AB 2728, including hazardous air pollutants listed in the Federal Clean Air Act Amendments of 1990 (ARB, 1996).
4. Substances which are being evaluated for review as a Toxic Air Contaminant (ARB, 1996).
5. AB 2588 Hot Spots Unit Risk and Cancer Potency Values (OEHHA, 1999b).
6. Acute Reference Exposure Levels (RELs) (OEHHA, 1999a).
7. Noncancer Reference Exposure Levels (Chronic) (CAPCOA, 1993).

REFERENCES FOR APPENDIX G

ARB, 1996. "Toxic Air Contaminant Identification List." California Air Resources Board. June 1996.

OEHHA, 1999a. Part I The Determination of Acute Reference Exposure Levels for Airborne Toxicants, Office of Environmental Health Hazard Assessment (OEHHA), March 1999.

OEHHA, 1999b. Part II Technical Support Document for Describing Available Cancer Potency Factors, Office of Environmental Health Hazard Assessment (OEHHA), April 1999.

CAPCOA, 1993. CAPCOA Air Toxics "Hot Spots" Program Revised 1992 Risk Assessment Guidelines, Toxics Committee of the California Air Pollution Control Officers Association (CAPCOA), October 1993.

U.S. EPA, 1996. Integrated Risk Information System (IRIS), United States Environmental Protection Agency (U.S. EPA), Washington , D.C., 1996.

Appendix H

Examples of Manufacturer Efficacy Claims for Non-Chlorinated Products

Note: mention of trade names or commercial products does not constitute endorsement or recommendation for use.

Brake Maintenance

BRAKE CLEANER

Effectively removes brake fluid, grease, oil and other contaminants from all brake parts including brake linings, disc brake pads, drums, cylinders, springs and other related brake parts. Non-flammable, quick drying formula which leaves no residue.

Sizes Available:

Part #1401	**1 Gal. Can**
Part #1405	**5 Gal. Can**
Part #1420	**20 Oz. Aerosol**
Part #1425	**25 Oz. Aerosol PROFESSIONAL**
Part #1455	**55 Gal. Drum**

Material Safety Data Sheet - MS Word Format - HTML Page

Line Art Image

BRAKE CLEANER (Non-Chlorinated)

Specially formulated ro clean as well as chlorinated brake cleaners without the chlorinated solvents. Tackles the toughest oil, brake fluid, grease and grime deposits. Dries quickly leaving no residue.

Sizes Available:

Part #2401	**1 Gal. Can**
Part #2405	**5 Gal. Can**
Part #2407	**5 Gal. Can / Heptane Formula**
Part #2414	**14 Oz. Aerosol / Heptane Formula**
Part #2419	**19 Oz. Aerosol / Heptane Formula / PROFESSIONAL**
Part #2420	**14 Oz. Aerosol**
Part #2421	**19 Oz. Aerosol / PROFESSIONAL**
Part #2455	**55 Gal. Drum**

Material Safety Data Sheet - MS Word Format - HTML Page

Line Art Image

AIR BRAKE ANTIFREEZE AND CONDITIONER

Complete winter protection for air brake systems. Eliminates the risk of cold weather airline problems and freeze-ups. Inhibits corrosion and prevents buildup on critical air valves and air strainers. Compatible with all alcohol evaporative air brake, air induction, supercharged and turbocharged systems.

Sizes Available:

Part #2301	**1 Gal. Can**
Part #2305	**5 Oz. Pour Can**
Part #2332	**32 Oz. Pour Can**
Part #2355	**55 Gal. Drum**

Back to Product Index

Berryman PRODUCTS, INC. Products

Parts Cleaners

CHEM-DIP® COLD PARTS CLEANERS

Fast acting immersion cleaner for all metal parts including alloys. Non-corrosive to metal and requires no agitation. Has a chemical seal to retard evaporation and to aid in emulsification. Removes carbon, varnish, paint, sludge and grease fast. Use for cleaning transmissions, carburetors, valves and other hard to clean parts.

Sizes Available:

Part #0901	**1 Gal. Can (Replenisher)**
Part #0902	**1 Gal. w/basket PROFESSIONAL**
Part #0905	**5 Gal. Net Pail PROFESSIONAL**
Part #0996	**3/4 Gal. w/basket**
Part #0950	**Basket for #0905**

Material Safety Data Sheet - MS Word Format - HTML Page

- Line Art Image

B-33® ENGINE DEGREASER

Emulsifies road grime, dirt and grease so that they may be rinsed off in an approved facility. Contains no chlorinated solvents and contains less than 50% V.O.C.'s by weight. Excellent for cleaning engines, small engine parts, lawn mowers, hand tools, machinery, fleet, farm and marine equipment.

Part #1116	**16 Oz. Aerosol**

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Line Art Image

ELECTRONIC CLEANER

Ideal for cleaning and degreasing printed circuits, switches, relays, rheostats, contact points and diagnostic test equipment. Removes lint, oil and dust from tape heads, tuners, VCR's and other electronic equipment. To clean electrical motors or components including armatures, windings and brushes see Electric Motor Cleaner Part #1520 above.

Part #2206 **4.5 Oz. Aerosol**

Material Safety Data Sheet - MS Word Format - HTML Page

Line Art Image

SURE SHOT SPRAYERS

Provides a uniform spray using Berryman's bulk size cleaners. These sprayers use shop air as the propellant. Refillable and Rechargeable.

Sizes Available:

Part #0960	**16 Oz. Stainless Steel Atomizer**
Part #0961	**16 Oz. Aluminum Plated Atomizer**
Part #0970	**1 Qt. Chrome Plated Brass Atomizer**
Part #0971	**1 Qt. Painted Steel Sprayer**

Line Art Image

Back to Product Index

Carburetor Cleaners

B-12 CHEMTOOL® CARBURETOR AND CHOKE CLEANER / AEROSOL

Quickly dissolves gum and varnish from the carburetor, PCV valve, automatic choke, carburetor linkage and distributor shaft with high energy solvent technology (H.E.S.T.). Improves driveablility by removing deposits that cause rough idle and stalling.

Sizes Available:

Part #0113	**13 Oz. Aerosol w/spray anyway valve**
Part #0117	**16.25 Oz. Aerosol w/spray anyway valve**
Part #0120	**20 Oz. Aerosol PROFESSIONAL**

Large capacity can provide extended use with new spray any way valve to reach those difficult components.

Part #0152	**5.2 Oz. Aerosol**
Part #1110	**9 Oz. Aerosol**

Material Safety Data Sheet - MS Word Format - HTML Page

Line Art Image

B-12 CHEMTOOL® CARBURETOR CLEANER / POUR IN

Cleans petroleum residue and disperses moisture from the fuel system, fuel injector, valves, rings, pistons, oil returns, lifters, PCV valve and oil pump screen with high energy solvent technology (H.E.S.T.). Regular use insures higher compression, fewer repairs, lower operation costs, increased spark plug and injector life.

Sizes Available:

Part #0101	**1 Gal. Can**
Part #0105	**5 Gal. Can**
Part #0116	**16 Oz. Pour Can**
Part #0155	**55 Gal. Drum**
Part #0216	**16 Oz. Squirt Can**

Material Safety Data Sheet - MS Word Format - HTML Page

PRODUCT INFORMATION

NON CHLORINATED BRAKE CLEANER
(AEROSOL)

CODE: **M7-15**

PAGE: **1 of 1**

DATE: **September, 99**

FUNCTION AND APPLICATION: Quickly dissolves and flushes away surface contaminants such as brake fluid, oil, and grease from brake linings, drums, other brake parts and CV joint assemblies. It cleans instantly and can be applied without disassembling the brake unit

OUTSTANDING PROPERTIES: Leaves no residue and helps stop disc brakes squeal and "chatter". Helps retard the release of asbestos dust and other airborne particulate matter. Use SOLDER SEAL® GUNK® BRAKE CLEANER on: conventional brake units, linings and shoes, drums, cylinders, springs, disc brake units C.V. joints, caliper units, brake pads, discs, and related parts. Contains no chlorinated solvents.

USE DIRECTIONS: Protect rubber or plastic brake parts, seals, and painted surfaces from spray. First turn engine off then lightly wet down surfaces to be cleaned by spraying in short bursts from a distance of 18 to 24 inches. **Do not spray on hot metal surfaces like exhaust pipes.** After the surfaces have been wetted, continue spraying at a distance of 12 to 18 inches to flush contaminants from surfaces. Spray brake parts thoroughly, then allow to air dry or wipe with soft clean cloth. If deposits are heavy, repeat application.

PRODUCT LIMITATIONS: This product will attack painted surfaces and plastic. If sprayed on, do not rub surfaces, flush with water immediately.

PRECAUTIONS: Contains Xylene (CAS# 1330-20-7), heptane (CAS# 142-82-5), acetone (CAS# 67-64-1), phenyl ethane (CAS#100-41-4) and Carbon Dioxide (CAS# 124-38-9). Contents under pressure. Use only in well-ventilated area away from heat, sparks, and flame. Pilot lights of furnaces, hot water tanks or even static electricity can ignite vapors explosively. Do not breathe asbestos, dust particles, or vapors. Use only in a well-ventilated area, open doors and windows to prevent vapor build up. NIOSH approved respirator recommended; may be required for professional users; consult MSDS for exposure

FIRST AID: For EYE contact: Flush thoroughly with water for 15 minutes lifting upper and lower eyelids occasionally. If irritation persists, consult a physician. For SKIN contact: Wash thoroughly with soap and water. IF SWALLOWED, CALL PHYSICIAN IMMEDIATELY: DO NOT INDUCE VOMITING. Aspiration into lungs can cause chemical pneumonitis, which can be fatal. Never give anything by mouth to an unconscious person. If INHALED, remove to fresh air, give artificial respiration or administer oxygen. Get medical attention.

STORAGE AND HANDLING: Store in a cool, dry, well ventilated area. Do not puncture, crush or incinerate (burn) can. KEEP AWAY FROM CHILDREN.

DISPOSAL: Disposal of product runoff in water courses, sewers, or on the ground is prohibited. Proper disposal includes collecting and recycling. Always use and dispose of product, container, and residue in accordance with all local, state and federal laws and regulations. Emptied containers contain product residue, so follow all warnings even after container is emptied.

CONTAINER DESCRIPTION: This product is available in 15 oz (425g) aerosol container.

Radiator Specialty Company

P.O. BOX 34689 / CHARLOTTE, N.C. 28234 / TELEPHONE 704-377-6555

Johnsen's Ultimate Fuel System Cleaner

Johnsen's Ultimate Fuel System Cleaner eliminates the need to purchase different additives and cleaners. It does everything you need to keep your fuel system clean, including injectors, intake valves, combustion chamber and entire emission system. Johnsen's Ultimate Fuel System Cleaner also helps eliminate knock and ping associated with low octane fuels and helps to remove moisture in the fuel system. Johnsen's Ultimate Fuel System Cleaner comes in 16 fluid oz. bottles. Just pour it in your gas tank. Available in twelve each, pre-packed counter top display (#4675) or forty-eight each floor-side stack display (#4675S). Feel the difference or your money back, guaranteed!

Brake Parts Cleaner

Part No. 2420 - 18 oz., 12 per case
Removes brake fluid, grease, oil and other contaminants from brake parts and drums quickly and easily. Stops disc brake squeal. Large 20 oz. pressurized can.

Non-Chlorinated Brake Parts Cleaner

Part No. 2413 - 15 oz., 12 per case
Part No. 2415 - 5 Gal., one each

Non-ozone depleting and non-carcinogen brake parts cleaner works effectively and dries fast. High power spray.

Engine Degreaser

Part No. 4644 - 16 oz., 12 per case
A premium degreaser which is self emulsifying. Two active ingredients mix with both oil and water. When sprayed on and washed off, the water actually pulls oil and grease off the surface of the engine. Johnsen's Engine Degreaser also contains a grease cutter to loosen heavier build-ups. A special stream nozzle allows the user to direct the flow exactly where it is needed.

Carburetor Cleaner

Part No. 4642 - 15 oz., 12 per case
Removes varnish, sludge and other deposits from carburetor, linkage, PCV valves and automatic choke. Will not affect oxygen sensor.

Engine Flush

Part No. 4608 - 32oz, 12 per case
Part No. 4609 - Qt, 12 per case

A premium crankcase cleaner. While some products are only a solvent, Johnsen's Engine Flush also contains a special residue solubilizer and a hight quality oil. Use prior to changing oil.

CRC Industries, Inc.

Product Information Sheet

Product Name: BRAKE PARTS CLEANER (NON-CHLORINATED)

Product Description: •Quickly removes brake fluid, grease, oil from brake linings and pads. •Leaves no residue •Degreases instantly •Contains no chlorinated solvents

Product Number	Unit Size	Units Per Case
85A	20 Oz Aerosol	12

« Back New Search Home

885 Louis Drive, Warminster, PA 18974
Phone: (215) 674-4300 Fax: (215) 674-2196

CRC Industries, Inc.

Product Information Sheet

Product Name: CRC BRAKLEEN® BRAKE PARTS CLEANER NON-CHLORINATED

Product Description: Use where compliance calls for a chlorine free product. Quickly removes brake fluid, grease, oil and other contaminants from brake linings and pads. •Cleans fast/Dries fast/No residue •Degreases instantly •Contains no chlorinated solvents

Product Number	Unit Size	Units Per Case
05088	20 Oz Aerosol	12
05085	1 Gal bottle	4
05086	5 Gal bottle	1
05087	55 Gal Dr	1
05150	20 Oz Aerosol	12

« Back New Search Home

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ABOUT LOCTITE
CONTACT LOCTITE
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LOCTITE WORLD WIDE

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E-CATALOG

PERMATEX Non-Chlorinated Brake & Parts Cleaner

Permatex® Non-Chlorinated Brake & Parts Cleaner, Penetrates, dissolves and removes dirt and oil from brake systems and metal parts. Safer for aluminum. Leaves no contaminant-attracting residue or chlorinated solvent run-off. Helps manage EPA halide limits. Suggested Applications: All brake systems, C.V. joints, machinery, tools, farm equipment

Product	Description
82220	Non-Chlorinated Brake & Parts Cleaner, 14.75 Oz. Net Wt. Aerosol MSDS

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BG Automotive Aerosol Products

BG 402 Brake & Contact Cleaner Part No. 402

Improves efficiency of braking systems, aids in elimination of brake squeal and chatter. Fast-acting solvents quickly remove brake fluid, grease, oil, moisture and other residue from both drum and disc type assemblies. Cleans and dries distributor parts, spark plugs, magnetos, electrical contacts and relays.
Net Wt. 19.75 oz. (560 grams) Volume 12.58 fl. oz.

BG 403 Non-Chlorinated Brake Cleaner Part No. 403

Safely, effectively, rapidly degreases brake linings, drums, cylinders, springs, disc brake pads and other brake parts. Easy to use-applied without disassembling the brake unit. Contains no chlorofluorocarbons.
Net Wt. 15 oz. (347.3 grams) Volume 18.16 fl. oz.

BG Air Intake System Cleaner Part No. 406

Safely and rapidly removes accumulated deposits from the butterfly/throttle valve, throttle body and idle air control valves of the air induction system. Contains lubricants and anti-corrosion ingredients. Safe on oxygen sensors and catalytic converters.
Net Wt. 14.75 oz. (600 ml) Volume 19.9 fl. oz.

BG Inject-A-Flush® Injector Cleaner Part No. 408

Used with the BG Inject-A-Flush® Apparatus (PN 908). Quickly and safely cleans the fuel injection system without removing injectors. In minutes, accumulated gums and oxidized fuel residues are dissolved and removed from the system.
Net Wt. 12 oz. (340 grams) Volume 13.8 fl. oz.

BG Carb and Choke Cleaner Part No. 411
BG Hi-Delivery Carb & Choke Cleaner Part No. 412

Both products contain a special blend of solvent fluids that remove harmful carbon, gum and varnish deposits. Cleans carburetors, automatic chokes, PCV valves and lines, and manifold heat control valves. Oxygen sensor safe. Contains no lead, silicone or phosphorus. Special Hi-Delivery spray system (PN 412 only) provides extra pressure to remove deposits.
Net Wt. 15.75 oz. (446 grams) Volume 19.44 fl. oz.

BG Silicone Lubricant Part No. 416

Penetrates surface pores and remains fluid without thickening or evaporating through aging. Prevents almost anything from sticking. Extremely long lasting with a wide temperature range.
Net Wt. 12.75 oz. (361 grams) Volume 19.41 fl. oz.

BG Engine Degreaser Part No. 417

Removes grease, oil and dirt from all types of combustion engines, generator engines, industrial machinery, driveways and other applications. Safe on paint, rubber wiring and insulation.
Net Wt. 15.75 oz. (447 grams) Volume 19.99 fl. oz.

BG Fre-It Part No. 435

Seals out and displaces moisture to stop squeaks and improve operation of moving parts, for hundreds of automotive and household uses. Will not harm paints, plastics or rubber. Actuator and 360° valve permit application from any angle in a stream or fine mist.
Net Wt. 11.75 oz. (333 grams) Volume 15.74 fl. oz.

BG In-Force Part No. 438

An ion-activated penetrating oil which stops rust, and lubricates and frees rusted parts. It can also be used in assembly applications. When bonded to metal, it forms a protective coating and lubricating surface which is enhanced by other lubricants and corrosion inhibitors.
Net Wt. 15.75 oz. (446 grams) Volume 20.14 fl. oz.

BG Windshield Defrost'r Part No. 458

Quickly and effectively melts frost and frozen snow on windshields, other glass surfaces and locks. Operates even at -20°F. Will not harm car finishes when used as directed.
Net Wt. 18 oz. (511 grams) Volume 17.59 fl. oz.

BG Glass Cleaner Part No. 460

Cuts through the most stubborn residues such as road film oil, road salt, grease, paint over-spray and bugs. Cleans and brightens all glass surfaces. Won't streak or leave a rainbow. Does not contain silicone.
Net Wt. 18.75 oz. (531 grams) Volume 19.47 fl. oz.

BG Carpet & Upholstery Cleaner Part No. 462

Excellent cleaner, lifts stubborn soil and grime from carpets, rugs, velours and other upholstery materials found in today's automobiles and other vehicles. Does not contain dangerous caustics or abrasives that encourage deterioration.
Net Wt. 14.75 oz. (418 grams) Volume 15.28 fl. oz.

BG White Lithium Grease Part No. 480

Lithium-based lubricant in convenient aerosol container for easy application on hard-to-reach areas. Protects against water and oxidation problems. Outstanding automotive body parts lubricant for door hinges, locks, seat tracks, manual window regulators.
Net Wt. 11.5 oz. (326 grams) Volume 15.91 fl. oz.

BG Battery Cleaner - Acid Detector Part No. 485

Foaming cleaner to remove the power-sapping corrosives that rob battery of power and shorten battery life. Unique acid detecting ingredient turns red in the presence of acid to warn of the need for additional cleaning; also indicates presence of a crack or leak around terminal.
Net Wt. 14 oz. (397 grams) Volume 14.19 fl. oz.

BG Chain Lube Part No. 495

Developed specially for roller chain lubrication; recommended for all applications where an adhesive oil lubricant is needed. Contains moly for added lubrication. Foams on-no messy overspray, resistant to water washout. Highly adhesive to metal surfaces. Lubricates well in extremes of heat and cold. Stays put under friction and heat.
Net Wt. 15 oz. (425 grams) Volume 13.44 fl. oz.

BG All Coat Part No. 497

Tough, adhesive lubricant formulated to protect and lubricate under extreme conditions. Excellent anti-wear properties. Especially effective where resistance to steam, water, dirt and corrosion is a requirement.
Net Wt. 14.25 oz. (404 grams) Volume 15.34 fl. oz.

BG HCF Lubricant Part No. 498

All-purpose spray lubricant. Unbelievably tough and stays where you need lubrication in temperatures as high as 550°F. Under water, it stays where it's exposed to harsh chemicals and in salt water environments. Superior under heavy loads. Highly effective rust protector. Excellent chain lubricant.
Net Wt. 16 oz. (453 grams) Volume 13.8 fl. oz.

Back

PRODUCT BULLETIN

732-20
BRAKE & PARTS CLEANER EF

- *Blasts Away Deposits*
- *No Chlorinated or Fluorinated Solvents*
- *No Fouled Waste Oil*
- *Removes Brake Fluid, Grease and Oil*
- *Contains No Lead, Phosphorous or Silicone*
- *Meets or exceeds California V.O.C. Limits*

DESCRIPTION

This highly concentrated solvent blend provides maximum performance in a brake parts cleaner without the use of ozone depleters or chlorinated solvents. Powerful blasting spray easily removes brake fluid, grease, oily dirt and contaminants from linings, pads and drums, cylinders and springs without disassembling the unit. Also includes extension tubes for hard to reach areas. Will not foul waste oil. Excellent all around metal parts cleaner. This special formulation meets or exceeds the 1/1/97 V.O.C. requirements for California. 20 ounce can.

MARKETS

Any city or county garage or bus barn, car dealer mechanic, fleet operator mechanic, school maintenance man, hospital, nursing home, or any call where there is equipment and a work bench. This product is used heavily as a parts cleaner. Any golf course, park and recreation department where they do a lot of mowing. Any equipment rental company where they have to repair the equipment when it comes back in.

DIRECTIONS

Remove cap and insert extension tube provided into spray tip. Hold can upright and keep tip pointed at red dot on valve cup. Spray brake parts liberally and allow to run off. Air or towel dry with clean, soft wiper. Repeat as necessary.

DISTRIBUTED BY

MADE IN USA BY

amrep inc.

990 Industrial Park Drive
Marietta, GA 30062

PRODUCT BULLETIN

734-20
BRAKE & PARTS CLEANER II

- *Blasts Away Deposits*
- *No Chlorinated or Fluorinated Solvents*
- *No Fouled Waste Oil*
- *Removes Brake Fluid, Grease and Oil*
- *Contains No Lead, Phosphorous or Silicone*

DESCRIPTION

This highly concentrated solvent blend provides maximum performance in a brake parts cleaner without the use of ozone depleters or chlorinated solvents. Powerful blasting spray easily removes brake fluid, grease, oily dirt and contaminants from linings, pads and drums, cylinders and springs without disassembling the unit. Also includes extention tubes for hard to reach areas. Will not foul waste oil. Excellent all around metal parts cleaner. 20 ounce can.

MARKETS

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DIRECTIONS

Remove cap and insert extension tube provided into spray tip. Hold can upright and keep tip pointed at red dot on valve cup. Spray brake parts liberally and allow to run off. Air or towel dry with clean, soft wiper. Repeat as necessary. Protect rubber and plastic parts from spray.

DISTRIBUTED BY

MADE IN USA BY

amrep inc.
990 Industrial Park Drive
Marietta, GA 30062

BRAKE MAINTENANCE PRODUCTS

Beginning in 1971 with industry leader BRAKLEEN, the original aerosol brake parts cleaner, CRC has earned its reputation as "The Brake Experts." BRAKLEEN was the very first product of its kind, and for more than 25 years, thousands of professional mechanics and automotive do-it-yourselfers have learned to rely on BRAKLEEN for fast, cost-effective solutions to all brake and clutch servicing problems.

CRC has since expanded its line of quality brake maintenance products to include Disc Brake Quiet and Brake Caliper Synthetic Grease. These products are the result of innovative technology combined with the same dedication to product superiority, regulatory compliance and safety that have made BRAKLEEN #1. Trust "The Brake Experts" for all your brake care needs as CRC continues it's commitment to quality into the 21st century.

CRC Brākleen®

Brake Parts Cleaner

Quickly removes brake fluid, grease, oil and other contaminants from brake linings and pads. Helps brakes last longer and perform more efficiently.

- Cleans fast/Dries fast/No residue
- Degreases instantly
- Non-flammable
- Works without disassembly

Part No.	Net Content	Units Per Case
05089	19 oz.	12
05089T	19 oz.	12
05090	1 gallon	4
05091	5 gallons	1
05093	55 gallons	1

CRC Disc Brake Quiet

Forms a water resistant, high temperature film that instantly absorbs noise and quiets disc brake squeaks and squeals. Easy to apply to new or previously installed pads.

Part No.	Net Content	Units Per Case
05016	4 fl. oz. (polymer)	12
05017*	9 oz. (aerosol)	12
05115	2-.5 oz. (carded)	12

NON-CHLORINATED FORMULA

CRC Brākleen®

Brake Parts Cleaner

Use where compliance calls for a chlorine-free product. Quickly removes brake fluid, grease, oil and other contaminants from brake linings and pads.

- Cleans fast/Dries fast/No residue
- Degreases instantly
- Works without disassembly
- Contains no chlorinated solvents

Part No.	Net Content	Units Per Case
05088*	15 oz.	12
05085*	1 gallon	4
05086*	5 gallons	1
05087*	55 gallons	1

CRC Brake Caliper Synthetic Grease

Synthetic base grease designed for today's high tech braking systems. Prevents caliper binding, sticking, vibration and squeal. Use on components of disc brake systems, caliper assemblies, metal backing plates of the disc brake pad, self-adjusters and drum brake systems.

- Contains molybdenum disulfide, graphite, extreme pressure agents, anti-seize polymers and *TEFLON®*
- Long-lasting, anti-corrosive, anti-fretting, and moisture resistant
- Won't melt and run off
- Eliminates uneven pad wear due to vibration

Part No.	Net Content	Units Per Case
05351	2.5 oz. tube	6
05352	2-5cc units (carded)	12
05353	12 oz. tub w/brush	12
05354	2.5 oz. tube (carded)	12
05355	35 lb. pail	1

CRC

The Brake Experts.

**This product is EXTREMELY FLAMMABLE.*
Read and observe the special usage warning on the label.
Do not apply while equipment is energized.

CRC Lectra-Motive®

Electric Parts Cleaner

- Provides fast, thorough cleaning for non-sensitive electrical equipment
- Dissolves grease, oil, dirt and wax
- Leaves no residue/Non-flammable

Part No.	Net Content	Units Per Case
05018	19 oz.	12
05019	1 gallon	4
05022	5 gallons	1
05024	55 gallons	1

CRC Gasket Remover

- Quickly removes the most stubborn gaskets, even in high-temperature areas
- Removes paint and decals
- Dissolves gasket cement within minutes

Part No.	Net Content	Units Per Case
05021*	12 oz.	12

CRC Engine Degreaser

Heavy Duty Cleaner

- Quickly lifts grease and grime off engines for cooler, more efficient running
- Leaves no residue
- Easy to use; Spray on – rinse off

Part No.	Net Content	Units Per Case
05025	15 oz.	12

CRC Battery Cleaner

- Removes corrosion; neutralizes acid spills
- Reduces voltage leakage
- Assures maximum battery current flow

Part No.	Net Content	Units Per Case
05023	11 oz.	12

CRC Battery Terminal Protector

- Protects terminals from corrosion for improved starting and longer battery life
- Provides lead-free protective coating
- Dries quickly and protects instantly

Part No.	Net Content	Units Per Case
05046*	7.5 oz.	12

CRC Clean-R-Carb™

Carburetor Cleaner

- Maximizes carburetor performance
- Quickly dissolves deposits on chokes, carb linkage, heat risers and PCV system
- Harmless to catalytic converters and oxygen sensors

Part No.	Net Content	Units Per Case
05079*	12 oz.	12
05081*	16 oz.	12

CRC Fuel Injection Air-Intake Cleaner

- Removes gum and varnish from throttle valves and body
- Lubricates butterfly and all moving parts
- Leaves behind a corrosion-resistant film

Part No.	Net Content	Units Per Case
05078*	12 oz.	12

CRC QD™ Electronic Cleaner

- Excellent precision cleaning solvent
- Instantly removes oil, grease, dirt, flux
- No residue/Harmless to most plastics

Part No.	Net Content	Units Per Case
05101*	4.5 oz.	12
05102*	11 oz.	12

CRC Natural Degreaser™

Cleaner/Degreaser

- Removes tough grease, oil, and grime
- All-natural and biodegradable
- Contains no chlorinated solvents or petroleum distillates

Part No.	Net Content	Units Per Case
14005	16 oz.	12

CRC TYME®-1

Carburetor & Cold Parts Cleaner

- Removes carbon, varnish and grease
- Safely cleans aluminum and other metals
- Non-corrosive/Non-flammable

Part No.	Net Content	Units Per Case
14101	1 gallon	4
14104	5 gallons	1

CRC HydroForce™

AQUEOUS CLEANERS

Foaming Citrus All Purpose Cleaner

- Quick, super foaming action with fresh citrus scent
- Non-abrasive; safe on most surfaces

Part No.	Net Content	Units Per Case
14400	18 oz.	12

Butyl-Free All Purpose Cleaner/Degreaser

- Aggressively attacks and removes tough dirt, dust and grime
- Safe for all routine cleaning tasks

Part No.	Net Content	Units Per Case
14401	28 fl. oz.	12
14402	1 gallon	4
14403	5 gallons	1
14404	55 gallons	1
14405	18 oz.	12

All Purpose Cleaner/Degreaser

- Removes grease, oil and dirt on contact
- Cleans up to three times the surface area of leading aqueous-based cleaners

Part No.	Net Content	Units Per Case
14406	18 oz.	12
14407	28 fl. oz.	12
14408	1 gallon	4
14409	5 gallons	1
14410	55 gallons	1

Glass Cleaner Professional Strength

- Streak-free/Residue-free
- Ammonia-fortified formula cuts through tough dirt, dust, haze and fingerprints

Part No.	Net Content	Units Per Case
14411	28 fl. oz.	12
14412	18 oz.	12
14413	1 gallon	4

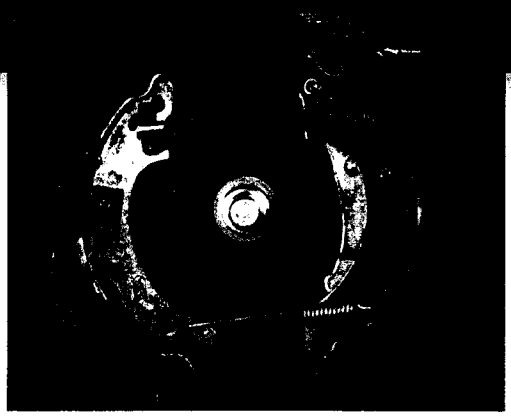
Industrial Strength Cleaner/Degreaser

- Heavy duty formula rivals performance of traditional solvent-based degreasers
- Cleans up to three times the surface area of leading aqueous-based cleaners

Part No.	Net Content	Units Per Case
14414	18 oz.	12
14415	28 fl. oz.	12
14416	1 gallon	4
14417	5 gallons	1
14418	55 gallons	1

**This product is EXTREMELY FLAMMABLE. Read and observe the special usage warning on the label. Do not apply while equipment is energized.*

- *The number one Brake Parts Cleaner since 1971*
- *Effectively removes brake fluid, grease, oil and other contaminants from all types of brake assemblies and parts*
- *Cleans fast/Dries fast*
- *Leaves no residue*
- *Works without disassembly*
- *Helps brakes last longer and perform more efficiently*
- *Available in 3 formulas: Regular, Non-Chlorinated and Low VOC Non-Chlorinated*



Usage: Apply **CRC Brākleen®** to remove contaminants on component parts including rotors, drums, cylinders, calipers, brake hardware (attaching pins, bushings, sleeves, support keys, bolts and anti-rattle clips/springs), inboard/outboard pads, primary/secondary shoes, springs and adjusters. Use a small stiff brush to help remove caked-on build-up or rust. Allow parts to air dry or wipe with a clean cloth.

Brākleen® Brake Parts Cleaner		
Part No.	**Net Content**	**Units per case**
05089	19 oz.	12
05089T	19 oz.	12
05090	1 gallon	4
05091	5 gallons	1
05093	55 gallons	1
Brākleen® Non-Chlorinated Brake Parts Cleaner		
Part No.	**Net Content**	**Units per case**
05088*	15 oz.	12
05084* Low VOC	15 oz.	12
05085*	1 gallon	4
05086*	5 gallons	1
05087*	55 gallons	1

Usage: Remove pads and clean with CRC Brākleen® Brake Parts Cleaner. Liberally and evenly coat entire steel back of each inboard and outboard disc pad with **CRC Disc Brake Quiet™**. (DO NOT apply to brake linings, rotors, or any other moving parts.) Allow to set for 10 minutes and install disc pads; pads may be installed while still tacky.

Disc Brake Quiet™		
Part No.	**Net Content**	**Units per case**
05016	4 fl. oz. (polymer)	12
05017*	9 oz. (aerosol)	12
05115	2-.5 oz. (carded)	12

- *For use on new and previously installed disc pads*
- *Dampens vibrations that cause disc brake squeaks and squeals*
- *Forms a water-resistant, high-temperature film that instantly absorbs noise*
- *Eliminates time-consuming adjustments*

**This product is EXTREMELY FLAMMABLE. Read and observe the special usage warning on the label. Do not apply while equipment is energized.*

AUTOMOTIVE & INDUSTRIAL MAINTENANCE

Brake Parts Cleaning

Zep aerosols contain No CFCs

ZEP BRAKE BUGGY™
Brake Parts Cleaning System

Portable, pneumatic, brake cleaner uses 5 gallons of recirculating solution to remove grease, dirt and brake dust from car or truck brakes. Height control allows for easy positioning under vehicles on a lift cylinder. The Catch Tray features a fusible, safety-link and spring-loaded lid that activates to close off the unit in the event of a fire. The Brake Buggy utilizes an air-operated pump which has an air-pressure regulator. Cleaning solution is continuously filtered through a Filter canister containing a 50-micron, pleated, paper Filter Element, and a 10-micron, polyester Sock to collect dirt and particulates. Solution is applied through a trigger flow brush. Unit measures 24 1/4" x 36" x 19 3/4".

Brake Buggy Unit
Prod. #9094
Brake Buggy Filter Canister
Prod. #9098
Brake Buggy Filter Element
Prod. #9096
Brake Buggy Sock
Prod. #9093

ZEP ADJUSTABLE BRAKE BUGGY™
Brake Parts Cleaning System

A portable, low-profile, air-operated brake parts washer designed for efficient and quick cleaning of automotive vehicle brake parts. A unique nested post assembly provides adjustable height control, allowing for easy use under vehicles lifted off the floor with a manual floor jack or elevated by a hydraulic lift cylinder. The fluid reservoir accommodates up to 5 gallons of brake wash fluid, such as Zep Brake Wash. The unit's circulating pump is air-operated with a flow-thru brush system adapted for fingertip control. A constant pressure regulator maintains 40 psi of air. The spring-loaded, fuse-linked, fire-protective lid doubles as a drain closure to prevent product evaporation when unit is not in use. Casters attached to outrigger brackets on sides of unit provide excellent portability and stability. The optional Adjustable Brake Buggy 5100 Filter Kit installs onto the unit to filter and remove particulate matter.

Adjustable Brake Buggy Unit
Prod. #9105
Adjustable Brake Buggy Filter Kit
Prod. #9106

ZEP BRAKE WASH™
Non-Chlorinated, Solvent Brake Parts Cleaner

Removes asbestos dust, oil, grease, brake fluid, and other soils from brake parts. Evaporates quickly and leaves no residue. Can be used on any type of brake equipment, assembled or disassembled.

Liquid Prod. #0505
Aerosol Prod. #0287

ZEP BRAKE PARTS CLEANER™
Heavy-Duty Solvent

Effectively removes asbestos dust, oil, grease, brake fluid, and other soils from brake parts. Thoroughly wets and washes away asbestos dust. Evaporates quickly, leaves no residue. Stops disc brake squeal. Non-flammable. (Do not use Brake Parts Cleaner when using the optional 5100 Filter Kit.

Prod. #0194

ZEP BRAKE SOL™
Liquid Brake Parts Cleaner

A blended safety brake cleaning solvent formulated to remove asbestos dust, oil, grease, brake fluid, and dirt from brake parts, plates, springs and shoes. Controls the level of hazardous asbestos dust in the air. Evaporates quickly and completely. Will not adversely affect brake parts and pads.

Prod. #0500

BRAKE SYSTEM PRODUCTS

ENVIRONMENTAL BRAKE CLEANER

Formulated to dissolve and remove brake fluid, oil grease and other contaminants from all types of brake assemblies safely and quickly. Contains no carcinogens or silicones.

Part No.	Description	Net Cont.	Case Count
AM7-20/6	Aerosol	18 oz..	6

DISC BRAKE QUIET

Stop disc brake squeal, squeak and chatter that can result in costly labor tie-ups from brake adjustment "comebacks."

Part No.	Description	Net Cont.	Case Count
M6-01V	2 Carded Tubes	¼ oz. each.	10
M6-04	Can	4 oz.	12
M6-09	Aerosol	9 oz.	12

NON-CHLORINATED BRAKE CLEANER

Fast....Effective...No Chlorinated Solvents

High solvency and fast evaporative properties quickly dissolve and flush away brake fluid, oil, and other contaminants from all types of brake and CV Joint assemblies. Spray can be applied without disassembly of the unit. Leaves no residue. Helps to eliminate brake squeal and "chatter".

Part No.	Description	Net Cont.	Case Count
M7-15	Aerosol	15 oz..	12

BRAKE AND CV JOINT CLEANER

High solvency and fast evaporation spray instantly degreases both conventional and disc brake assemblies. Quickly dissolves and flushes away brake fluid, grease, oil and other contaminants without disassembly.

Part No.	Description	Net Cont.	Case Count
M7-20	Aerosol	22 oz..	12
M7-20/6	Aerosol	22 oz.	6
M7-34	Jug	1 gal.	4
M7-49	Drum	54 gal.	1

DOT 3 SUPER HD BRAKE FLUID

Minimum boil point 450° F. Meets and exceeds DOT 3 and all other Federal and SAE specifications and standards for motor vehicle brake fluid. Resists boiling under heavy and constant braking. Mixes with all other approved brake fluids. Suitable for use in ATE, Girling, Lockheed and other systems.

Part No.	Description	Net Cont.	Case Count
M43-12	Bottle	12 oz..	24
M43-32	Bottle	32 oz.	12
M43-34	Can	1 gal.	4

DOT 3 STANDARD HD BRAKE FLUID

Meets and complies with DOT3 Federal Standard No.116. Exceeds Fed. Spec. VV-b680 and SAE Spec. J1703. Designed for U.S. and foreign cars and trucks where DOT 3 fluid is specified.

Part No.	Description	Net Cont.	Case Count
M44-12	Bottle	12 oz..	24
M44-12/12	Bottle	12 oz.	12
M44-32	Can	32 oz..	12
M44-34	Can	1 gal.	4
M44-40	Pail	5 gal.	1
M44-49	Drum	54 gal.	1

Appendix I

Glossary

Appendix I. Glossary

Acute Exposure:	One or a series of short-term exposures generally lasting less than 24 hours.
Air Dispersion Model:	A mathematical model or computer simulation used to estimate the concentration of toxic air pollutants at specific locations as a result of mixing in the atmosphere.
Airborne Toxic Control Measure:	Section 39655 of the Health and Safety Code, defines an"Airborne Toxic Control Measure" means either of the following: 1) Recommended methods, and, where appropriate, a range of methods, that reduce, avoid, or eliminate the emissions of a toxic air contaminant. Airborne toxic control measures include, but are not limited to, emission limitations, control technologies, the use of operational and maintenance conditions, closed system engineering, design equipment, or work practice standards, and the reduction, avoidance, or elimination of emissions through process changes, substitution of materials, or other modifications. 2) Emission standards adopted by the U.S. Environmental Protection Agency pursuant to Section 112 of the federal act (42 U.S.C. Sec. 7412).
AMR Activities:	means any service, repair, restoration, or modification activity to a motor vehicle in which cleaning or degreasing products could be used including, but not limited to, brake work, engine work, machining operations, and general degreasing of engines, motor vehicles, parts, or tools.
AMR Facilities:	means any entity or entities that repairs, rebuilds, reconditions, services, or maintains in any way, motor vehicles. "Facility" includes entities required to be registered by the California Department of Consumer Affairs, Bureau of Automotive Repair, and entities that service or repair a fleet of ten or more motor vehicles. "Facility" does not include private residences or entities that are involved only in motor vehicle body work or painting.
Cancer Risk:	The theoretical probability of contracting cancer when exposed for a lifetime to a given concentration of a substance usually calculated as an upper confidence limit. The maximum estimated risk may be presented as the number of chances in a million of contracting cancer.
Chlorinated Automotive Consumer Product:	means an automotive consumer product (brake cleaner, carburetor cleaner, engine degreaser, or general purpose degreaser) that contains perchloroethylene (Perc), methylene chloride (MeCl), or trichloroethylene (TCE).

Chronic Exposure:	Long-term exposure usually lasting from one year to a lifetime.
Hazardous Air Pollutant or HAP:	Means a substance that the U.S. Environmental Protection Agency has listed in, or pursuant to, Section 112 subsection (b) of the federal Clean Air Act Amendments of 1990 (42 U.S. Code, Section 7412(b)).
Hazard Index:	The ratio of the concentration of a toxic pollutant with non-cancer health effects and the reference exposure level for that pollutant.
Health Risk Assessment (HRA):	A comprehensive analysis of the dispersion of hazardous substances in the environment, the potential for human exposure, and a quantitative assessment of both individual and population-wide health impacts associated with the level of exposure.
Inhalation Reference Concentration (RfC):	An estimate, derived by the U.S. EPA (with an uncertainty spanning perhaps an order of magnitude) of a daily exposure to the human population, (including sensitive subgroups) that is likely to be without appreciable risk of deleterious effects during a lifetime of exposure. The RfC is derived from a no or lowest observed adverse effect level from human or animal exposures, to which uncertainty or "safety" factors are applied.
MEIR:	Maximum exposed individual resident. The residential receptor location that receives the estimated maximum exposure from a facility's emissions relative to other residential locations.
MEIW:	Maximum exposed individual worker. The off-site industrial or commercial location that receives the estimated maximum exposure from a facility's emissions relative to other industrial or commercial locations. This receptor is a subset of non-residential receptors.
Near Source Location:	The location closest to a facility where concentrations could be estimated through air dispersion modeling.
Non-cancer Risk:	Refers to non-cancer health effects due to acute and/or chronic exposure. This may be illustrated as an estimate of the hazard index or total hazard index (by endpoint) resulting from exposure to toxic air pollutants.
Non-Residential Location:	A receptor that is not residentially located. This category could include receptors at off-site industrial locations, at on-site locations of public access for acute exposure, or employees at sensitive receptor locations, including but not limited to, schools, hospitals, and care facilities.

Reference Exposure Level (REL):	These are used as indicators of potential non-cancer adverse health effects. An REL is a concentration level at or below which no adverse health effects are anticipated. RELs are designed to protect most sensitive individuals in the population by including safety factors in their development.
Risk:	The possibility of injury or disease, which may result from exposure to toxic air pollutants.
Scientific Review Panel on Toxic Air Contaminants (SRP):	A nine-member panel appointed to advise the Air Resources Board and the Department of Pesticide Regulation in their evaluation of the adverse health effects toxicity of substances being evaluated as Toxic Air Contaminants.
Toxic Air Contaminant (TAC)	Section 39655 of the Health and Safety Code, defines a TAC as an air pollutant 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. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. Sec. 7412(b)) is a TAC. TACs that are pesticides are regulated in their pesticidal use by the Department of Pesticide Regulation.
Total Hazard Index:	The sum of hazard indices for pollutants with non-cancer health effects that have the same or similar adverse health effects (endpoints).
Unit Risk Factor: (URF):	The estimated upper-confidence limit (usually 95%) probability of a person contracting cancer as a result of a constant exposure to 1µg/m^3 of a substance over a 70-year lifetime.
Volatile Organic Compound (VOC):	Means any compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following: (1) methane, methylene chloride (dichloromethane), 1,1,1-trichloroethane (methyl chloroform), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113), 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), chlorodifluoromethane (HCFC-22), 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123), 1,1-dichloro-1-fluoroethane (HCFC-141b), 1-chloro-1,1-difluoroethane (HCFC-142b), 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), trifluoromethane (HFC-23), 1,1,2,2-tetrafluoroethane (HFC-134), 1,1,1,2-tetrafluoroethane (HFC-134a), pentafluoroethane (HFC-125), 1,1,1-trifluoroethane (HFC-143a), 1,1-difluoroethane (HFC-152a), cyclic,

branched, or linear completely methylated siloxanes, the following classes of perfluorocarbons: (A) cyclic, branched, or linear, completely fluorinated alkanes; (B) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations; (C) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and (D) sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds to carbon and fluorine, and (2) the following low-reactive organic compounds which have been exempted by the U.S. EPA: acetone, ethane, methyl acetate, parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene), perchloroethylene (tetrachloroethylene).

Acronyms

AB	Assembly Bill
ARB	Air Resources Board
AMR Activities	Automotive Maintenance and Repair Activities
AMR Facilities	Automotive Maintenance and Repair Facilities
APCD	Air Pollution Control District
AQMD	Air Quality Management District
ATCM	Airborne Toxic Control Measure
BAR	California Department of Consumer Affairs, Bureau of Automotive Repair
Cal/OSHA	California Occupational Safety and Health Act
DHS	California Departent of Health Services
Districts	Local Air Pollution Control and Air Quality Management Districts
DOF	California Department of Finance
DTSC	California Department of Toxics Substances Control
HAP	Hazardous Air Pollutant
HSC	Health and Safety Code
IARC	International Agency for Research on Cancer
OEHHA	Office of Environmental Health Hazard Assessment
MeCl	Methylene Chloride (dichloromethane)
MEIR	Maximum Exposed Individual Resident
MEIW	Maximum Exposed Individual Worker
MSDS	Material Safety Data Sheet
Perc	Perchloroethylene (tetrachloroethylene)
PMI	Point of Maximum Impact
RfC	Reference Concentration
RfD	Reference Dose
REL	Reference Exposure Level
SB	Senate Bill
SRP	Scientific Review Panel on Toxic Air Contaminants
TAC	Toxic Air Contaminant
TCA	1,1,1-Trichloroethane
TCE	Trichloroethylene
URF	Unit Risk Factor
U.S. EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound