

PERMIT TO CONSTRUCT EVALUATION
Boiler (new construction)

Applicant's Name: Ted Levine Drum Co.
Company ID No.: 71797
Mailing Address: 1729-1927 Chico Ave., South El Monte, CA 91733
Equipment Address: 1729-1927 Chico Ave., South El Monte, CA 91733

EQUIPMENT DESCRIPTION:

Application 474819:
Title V Revision

Application 474820:
BOILER, PARKER, MODEL NO. 150LR, WATER-TUBE, WITH EIGHTEEN PARKER LOW NOX BURNERS, NATURAL GAS FIRED, 6,250,000 BTU PER HOUR.

HISTORY:

The company originally submitted Application No. 471891 on 7/17/07 for a permit to construct a natural gas fired boiler. The application was not accompanied by a Title V Revision application and company was asked to submit one. When the company failed to submit the Title V Revision application, A/N 471891 was rejected on 9/19/07. The company resubmitted an application for the boiler on 10/25/07 under A/N 474820, which was accompanied by A/N 474819 for a Title V Revision.

The facility is in the Title V program, but is not a Reclaim facility. The facility is located in a completely industrial area with no nearby sensitive receptors. The company has received one recent complaint in the previous three years. The complaint was filed in May 2007 for odors. The source of the complaint was not determined because the incident ended by the time the inspector contacted the complainant. No violations were observed. The company has received two Notices of Violation within the past three years. The first was issued in 2005 for failing to maintain the spray booth and submit the semi-annual monitoring report. The second was issued in 2006 for exceeding the boiler NOx limit. The company has come into compliance with both of these notices.

This new boiler is replacing an existing 5.3 MMBTU boiler permitted under P/N D60465 (A/N 247334). The boiler to be replaced was the subject of the Notice of Violation previously discussed. An administrative change will be made to this permit to add a condition to remove it from service once the new boiler is fully operational.

PROCESS DESCRIPTION:

The company cleans and refurbishes used metal and plastic 55 gallon containers, as well as other larger plastic totes. The company also coats the inside and outside of these containers. As part of the cleaning process, the company uses boilers to create steam for the cleaning and drying. The company will be replacing one of their existing boilers with this new boiler. The new boiler has a BTU rating of 6.25 MMBTU/hr. The boiler is equipped with a low NOx burner that has guaranteed emissions of 12 ppm NOx and 100 ppm CO at 3% O₂. The operating schedule for the facility is 24 wk/yr, 7 day/wk, and 24 hr/day.

EMISSION CALCULATIONS:

For the watertube boiler the facility will accept a CO concentration limit be the current BACT level of 100 ppm and a limit of 12 ppm for NOx. The emissions will be partially offset by the removal of the 5.3 MMBTU boiler. Using the NOx Emission Factor calculation from Rule 2012, yields emission factors in the table below:

$$\text{NOx EF(lb/mmcf)} = \text{ppm} \cdot \left[\frac{20.9}{20.9 - b} \right] \cdot 1.195 \times 10^{-7} \cdot F_d \cdot V$$

where

b = standard O2 concentration (3%)

Fd = Dry F - factor (Natural Gas = 8710 dscf/MMBTU)

V = Higher heating value (1050 MMBTU/mmcf)

To obtain the CO emission factor, the following equation was used:

$$\text{CO EF(lb/mmcf)} = \text{ppm} \cdot \left[\frac{20.9}{20.9 - b} \right] \cdot 28 \frac{\text{lb}}{\text{lbmole}} \cdot 10^{-6} \cdot V \cdot F_d \div 379 \frac{\text{cf}}{\text{lbmole}}$$

The emission factors for VOC, PM10 and SOx were obtained from AQMD's Emission Fee Billing guidelines. PM10 emissions will be assumed equal to PM emissions. The maximum operation of the 6.25 MMBTU boiler will result in a natural gas usage of 0.006 mmcf/hr

Pollutant	Emission Factors	Hourly Emissions	Daily Emissions
VOC	5.5 lb/mmcf	0.033	0.79
NOx	12 ppmv; 15.3 lb/mmcf	0.09	2.16
SOx	0.6 lb/mmcf	0.004	0.096
CO	100 ppmv; 78.86 lb/mmcf	0.47	11.4
PM	7.6 lb/mmcf	0.05	1.2
PM10	7.6 lb/mmcf	0.05	1.2

REDUCTIONS

Removal of 5.3 MMBTU/HR Boiler under P/N D60465. Fuel usage rate is 0.005 mmcf/hr. The previous application only has NSR entries for NOx and CO, so the same emission factors previously discussed will be used for the remaining contaminants.

Pollutant	Emission Factors	Hourly Emissions	Daily Emissions
VOC	5.5 lb/mmcf	0.028	0.672
NOx	NSR Data		3.6
SOx	0.6 lb/mmcf	0.003	0.072
CO	NSR Data		11.28

PM	7.6 lb/mmcf	0.038	0.912
PM10	7.6 lb/mmcf	0.038	0.912

RULES/REGULATION
EVALUATION:

RULE 212, PUBLIC NOTIFICATION

SUBPARAGRAPH 212(c)(1):

This paragraph requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. According to Google Maps and LA County Assessor Map, there is no school within 1000 feet of the permit unit. Therefore no public notice will be required under this paragraph.

PARAGRAPH 212(c)(2):

The modified facility will not result in on-site emission increases exceeding the daily maximums for NO_x, CO, VOC or PM₁₀ emissions as specified in Rule 212(g). Therefore, a 30-day public notice period will not be required under this paragraph.

PARAGRAPH 212(c)(3):

A public notice will not be required under this paragraph since it will not exceed any of the health risk thresholds. See Rule 1401 evaluation section.

PARAGRAPH 212(g):

The new source will not result in an emission increase exceeding the daily maximums for NO_x, CO, VOC or PM₁₀ emissions as specified in Rule 212(g). Therefore, a 30-day public notice period will not be required under this paragraph.

RULE 401, VISIBLE EMISSIONS

With the proper use of the equipment, no visible emissions are expected.

RULE 404, PARTICULATE MATTER- CONCENTRATION

This rule is not applicable to emissions from the combustion of gaseous fuels in steam generators. Compliance with this rule is expected.

RULE 407, LIQUID AND GASEOUS AIR CONTAMINANTS

The boiler exhaust will result in CO emissions well under the limit of this rule (2000 ppm). Compliance with this rule is expected.

RULE 1146, EMISSIONS OF OXIDES OF NITROGEN FROM INDUSTRIAL, INSTITUTIONAL AND COMMERCIAL BOILERS, STEAM GENERATORS AND PROCESS HEATERS

This rule requires the boiler, which is rated greater than 5 mmBTU and less than 10 mmBTU, to be limited to 30 ppm NO_x and 400 ppm CO, both @ 3% O₂. The manufacturer guarantees NO_x emissions of 12 ppm and CO emissions of 100 ppm. CO emissions will be limited to 100 ppm due to BACT requirements, so the equipment will still meet the limits of this rule. The fuel usage is greater than 90,000 therms so subsection (c)(6) of this rule is not applicable. Compliance with this rule is expected.

REGULATION XIII

RULE 1303(a), BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

The present BACT guidelines require that a watertube boiler be limited to 12 ppmvd NO_x and 100 ppmvd CO (corrected to 3% O₂). The boiler will have a Low NO_x burner that is guaranteed by the manufacturer to meet these emission limits. Compliance with this rule is expected.

RULE 1303(b)(1), MODELING

There are presently no modeling requirements for VOC or SO_x emissions. Hourly PM₁₀, NO_x and CO emissions are below the respective levels in Table A-1 of this rule for this equipment. Therefore, no modeling requirements will apply to this equipment.

Equipment	NO _x lb/hr	CO lb/hr	PM10 lb/hr
Boiler	0.09	0.47	0.05
Allowable	0.47	25.9	2.8

RULE 1303(b)(2), OFFSETS

Due to the removal of the other boiler, the increase in emissions from the new boiler will be less than 0.5 pound per day and will therefore not need to be offset. There will be a decrease in NO_x emissions of one pound per day. PM10 and SO_x will slightly increase, but it will be an increase of less than 0.5 pound per day each.

Pollutant	Emission Increase (lb/day)	Emission Decrease (lb/day)	Δ (lb/day)
CO*	11.4	11.28	+0.12
NO _x	2.16	3.6	-1.44
PM10	1.2	0.912	+0.29
ROG	0.79	0.672	+0.118
SO _x	0.096	0.072	+0.024

RULE 1401, NEW SOURCE REVIEW OF TOXIC AIR CONTAMINANTS

The combustion of natural gas will result in the emission of toxic air contaminants identified in Table 1 of Rule 1401, with an effective date of March 4, 2005 or earlier. A tier II health risk assessment was completed based on the maximum toxic emissions from a 6.25 mmBTU burner. The results, located at the end of this evaluation, showed a MICR of less than one in a million, and an HIA and HIC less than one each. Compliance with this rule is expected.

REGULATION XVII, PREVENTION OF SIGNIFICANT DETERIORATION

RULE 1701, GENERAL

The addition of the boiler will result in the increase of CO, an attainment air contaminant. The equipment will be equipped with Best Available Control Technology in accordance with 1701(b)(1) (See BACT evaluation). Under 1701(b)(2), the requirements of Regulation XVII do not apply to this facility since it is not a major stationary source. Compliance with this regulation is expected.

REGULATION XXX:

This facility is not in the RECLAIM program. The proposed project is considered as a “de minimis significant permit revision” to the Title V permit for this facility.

Rule 3000(b)(6) defines a “de minimis significant permit revision” as any Title V permit revision where the cumulative emission increases of non-RECLAIM pollutants or hazardous air pollutants (HAPs) from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

Air Contaminant	Daily Maximum (lbs/day)
HAP	30
VOC	30
NO _x	40
PM ₁₀	30
SO _x	60
CO	220

To determine if a project is considered as a “de minimis significant permit revision” for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the Title V renewal permit shall be accumulated and compared to the above threshold levels. This proposed project is the 1st permit revision to the Title V renewal permit issued to this facility on February 4, 2007. The following table summarizes the cumulative emission increases resulting from all permit revisions since the Title V renewal permit was issued:

Revision	HAP	VOC	NO _x	PM ₁₀	SO _x	CO
1 st Permit Revision; addition of one 6.25 MMBTU boiler replacing one 5.3MMBTU boiler (P/N D60465)	0	0	0	0	0	0
Cumulative Total	0	0	0	0	0	0
Maximum Daily	30	30	40	30	60	220

Since the cumulative emission increases resulting from all permit revisions are not greater than any of the emission threshold levels, this proposed project is considered as a “de minimis significant permit revision”.

RECOMMENDATION

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a “de minimis significant permit revision”, it is exempt from the public participation requirements under Rule 3006 (b). A proposed permit incorporating this permit revision

will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not have any objections within the review period, a revised Title V permit will be issued to this facility.

PERMIT CONDITIONS

A/N 474820

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE FIRED ON NATURAL GAS ONLY.
[RULE 1303(a)(1)-BACT]
4. THIS EQUIPMENT SHALL NOT DISCHARGE MORE THAN 12 PPM OF OXIDES OF NITROGEN (NOX) CALCULATED AS NO₂ AND 100 PPM OF CARBON MONOXIDE (CO), ALL CALCULATED BY VOLUME ON A DRY BASIS @ 3% OXYGEN.
[RULE 1303(a)(1)-BACT]
5. THE COMBUSTION BURNERS SHALL BE INSPECTED AND MAINTAINED PER MANUFACTURER'S SPECIFICATIONS. INSPECTION AND MAINTENANCE RECORDS SHALL BE RETAINED AT THE FACILITY FOR AT LEAST FIVE YEARS, AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1146, 1303(a)(1)-BACT]
6. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT SOURCE TESTS UNDER THE FOLLOWING CONDITIONS:
 - A. THE SOURCE TESTS SHALL BE CONDUCTED NO LATER THAN 180 DAYS AFTER THE INITIAL START-UP OF THIS EQUIPMENT UNLESS OTHERWISE APPROVED IN WRITING BY THE DISTRICT.
 - B. A SOURCE TEST PROTOCOL SHALL BE SUBMITTED TO THE DISTRICT NO LATER THAN 60 DAYS AFTER THE INITIAL START-UP OF THIS EQUIPMENT UNLESS OTHERWISE APPROVED IN WRITING BY THE DISTRICT. THE TEST PROTOCOL SHALL BE APPROVED IN WRITING BY THE DISTRICT BEFORE THE TEST COMMENCES. THE TEST PROTOCOL SHALL INCLUDE THE COMPLETED DISTRICT FORMS ST-1 AND ST-2 SPECIFYING THE PROPOSED OPERATING CONDITIONS OF THE EQUIPMENT DURING THE TEST, THE IDENTITY OF THE TESTING LABORATORY, A STATEMENT FROM THE TESTING LABORATORY CERTIFYING IT MEETS THE CRITERIA IN DISTRICT RULE 304(K), AND A DESCRIPTION OF THE SAMPLING AND ANALYTICAL PROCEDURES TO BE USED.
 - C. THE SOURCE TEST SHALL BE PERFORMED TO VERIFY COMPLIANCE WITH THE NOX AND CO EMISSION LIMIT SPECIFIED BY THIS PERMIT.
 - D. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH SCAQMD METHOD 100.1.

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE**

Coating, Printing and Aerospace Operations Team

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- E. THE TEST SHALL BE PERFORMED WHEN THE BOILER IS OPERATING AT MAXIMUM, AVERAGE, AND MINIMUM FIRING RATES AND ALSO WHILE OPERATING UNDER NORMAL CONDITIONS. THE SAMPLING DURATION SHALL BE AT LEAST 15 CONSECUTIVE MINUTES FOR MAXIMUM, AVERAGE, MINIMUM, AND NORMAL LOADS.
- F. WRITTEN NOTICE OF THE SOURCE TESTS SHALL BE SUBMITTED TO THE DISTRICT AT LEAST 14 DAYS PRIOR TO SOURCE TESTING DATE SO THAT AN OBSERVER FROM THE DISTRICT MAY BE PRESENT.
- G. TWO COMPLETE COPIES OF THE SOURCE TEST REPORTS SHALL BE SUBMITTED TO THE DISTRICT WITHIN 45 DAYS AFTER THE SOURCE TESTING DATE. THE SOURCE TEST REPORT SHALL INCLUDE, BUT NOT BE LIMITED TO EMISSION RATES IN POUNDS PER HOUR AND CONCENTRATIONS IN PPMV AT THE OUTLET OF THE BOILER, MEASURED ON A DRY BASIS AT 3% OXYGEN. THE FOLLOWING OPERATING DATA SHALL ALSO BE INCLUDED FOR EACH FIRING RATE:
- I. THE EXHAUST FLOW RATES, IN ACTUAL CUBIC FEET PER MINUTE (ACFM).
 - II. THE FIRING RATES IN BTU PER HOUR.
 - III. THE EXHAUST TEMPERATURE, IN DEGREES F.
 - IV. THE OXYGEN CONTENT OF THE EXHAUST GASES, IN PERCENT.
 - V. THE FUEL FLOW RATE.
- H. A TESTING LABORATORY CERTIFIED BY THE CALIFORNIA AIR RESOURCES BOARD IN THE REQUIRED TEST METHODS FOR CRITERIA POLLUTANTS TO BE MEASURED, AND IN COMPLIANCE WITH DISTRICT RULE 304 (NO CONFLICT OF INTEREST) SHALL CONDUCT THE TEST.
- I. SAMPLING FACILITIES SHALL COMPLY WITH THE DISTRICT GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES, PURSUANT TO RULE 217. [RULE 1146, 1303(a)(1)-BACT, 1303(b)(2)-OFFSET]

Periodic Monitoring:

7. THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE NOX EMISSION LIMIT(S) BY CONDUCTING A TEST AT LEAST ONCE EVERY FIVE YEARS USING A PORTABLE ANALYZER AND AQMD-APPROVED TEST METHOD OR, IF NOT AVAILABLE, A NON-AQMD APPROVED TEST METHOD. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH NO_x CONCENTRATION LIMIT(S). THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.
[RULE 3004 (a)(4)]
8. THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE CO EMISSION LIMIT(S) BY CONDUCTING A TEST AT LEAST ONCE EVERY FIVE YEARS USING A PORTABLE ANALYZER AND AQMD-APPROVED TEST METHOD OR, IF NOT AVAILABLE, A NON-AQMD APPROVED TEST METHOD. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH THE CO CONCENTRATION LIMIT(S). THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.
[RULE 3004 (a)(4)]

Emissions and Requirements:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE
Coating, Printing and Aerospace Operations Team
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9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

CO: 400 PPMV, RULE 1146
CO: 2000 PPMV, RULE 407
CO: 100 PPMV, RULE 1303(a)(1)-BACT
NOx: 30 PPMV, RULE 1146
NOx: 12 PPMV, RULE 1303(a)(1)-BACT
PM: 0.1 GR/SCF, RULE 409

The following condition will be added to Permit D60465

5. THIS EQUIPMENT SHALL BE REMOVED FROM SERVICE WHEN THE EQUIPMENT UNDER APPLICATION NO. 474820 BECOMES FULLY OPERATIONAL.
[RULE 1303(b)(2)-OFFSET]

TIER 2 SCREENING RISK ASSESSMENT

A/N: 474820
Fac: Ted Levine

Application deemed complete date: 10/25/07

2. Tier 2 Data

MET Factor	0.68
4 hr	0.84
6 or 7 hrs	0.85

Dispersion Factors

3	3A & 3B For Chronic X/Q
6	For Acute X/Q

Dilution Factors (ug/m3)/(tons/yr)

Receptor	X/Q	X/Qmax
Residential	0.25176737	3.269813871
Commercial	5.821838658	51.61491008

Adjustment and Intake Factors

	Afann	DBR	EVF
Residential	1	302	0.96
Worker	1	149	0.38

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Date: 10/25/07

TIER 2 RESULTS

5. MICR

$MICR = CP \text{ (mg/(kg-day))}^{-1} * Q \text{ (ton/yr)} * (X/Q) * Afann * Met * DBR * EVF * 1.E-6 * MP$

Compound	Residential	Commercial
Acetaldehyde	5.55E-11	2.51E-10
Acrolein		
Benzene (including benzene from gasoline)	1.03E-09	4.66E-09
Ethyl benzene		
Formaldehyde	4.61E-10	2.08E-09
Hexane (n-)		
Napthalene	4.65E-11	2.10E-10
PolyCyclic Aromatic Hydrocarbon (PAHs)	1.50E-08	3.32E-08
Propylene		
Toluene (methyl benzene)		
Xylenes (isomers and mixtures)		
Total	1.66E-08	4.04E-08
	Pass	Pass

No Cancer Burden, MICR < 1.E=-6

5a. Cancer Burden		no
X/Q for one-in-a-million:		
Distance (meter)		
Area (km2):		
Population:		
Cancer Burden:		

6. Hazard Index

HIA = [Q(lb/hr) * (X/Q)max] * AF / Acute REL

HIC = [Q(ton/yr) * (X/Q) * MET * MP] / Chronic REL

Target Organs	Acute	Chronic
Alimentary system (liver) - AL		4.89E-07
Bones and teeth - BN		
Cardiovascular system - CV		
Developmental - DEV	2.01E-06	2.68E-05
Endocrine system - END		4.89E-07
Eye	4.42E-03	5.22E-03
Hematopoietic system - HEM	1.70E-06	1.37E-05
Immune system - IMM	5.73E-05	
Kidney - KID		4.89E-07
Nervous system - NS	3.04E-07	3.04E-05
Reproductive system - REP	2.01E-06	
Respiratory system - RES	4.42E-03	5.31E-03
Skin		

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6a. Hazard Index Acute

HIA = [Q(lb/hr) * (X/Q)max] * AF/ Acute REL

Compound	HIA - Residential									
	AL	CV	DEV	EYE	HEM	IMM	NS	REP	RESP	SKIN
Acetaldehyde				2.77E-04					2.77E-04	
Acrolein			1.08E-07		1.08E-07	1.08E-07		1.08E-07		
Benzene (including benzene)										
Ethyl benzene				3.52E-06		3.52E-06			3.52E-06	
Formaldehyde										
Hexane (n-)										
Napthalene										
PolyCyclic Aromatic Hydroc										
Propylene										
Toluene (methyl benzene)			1.93E-08	1.93E-08			1.93E-08	1.93E-08	1.93E-08	
Xylenes (isomers and mixtur				2.41E-08					2.41E-08	
Total			1.27E-07	2.80E-04	1.08E-07	3.63E-06	1.93E-08	1.27E-07	2.80E-04	

HIA - Commercial										
Compound	AL	CV	DEV	EYE	HEM	IMM	NS	REP	RESP	SKIN
Acetaldehyde										
Acrolein				4.37E-03					4.37E-03	
Benzene (including benzene			1.70E-06		1.70E-06	1.70E-06		1.70E-06		
Ethyl benzene										
Formaldehyde				5.56E-05		5.56E-05			5.56E-05	
Hexane (n-)										
Napthalene										
PolyCyclic Aromatic Hydroc										
Propylene										
Toluene (methyl benzene)			3.04E-07	3.04E-07			3.04E-07	3.04E-07	3.04E-07	
Xylenes (isomers and mixtur				3.80E-07					3.80E-07	
Total			2.01E-06	4.42E-03	1.70E-06	5.73E-05	3.04E-07	2.01E-06	4.42E-03	

6b. Hazard Index Chronic

$$HIC = [Q(\text{ton/yr}) * (X/Q) * MET * MP] / \text{Chronic REL}$$

Compound	HIC - Residential											SKIN	
	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP		RESP
Acetaldehyde												2.13E-06	
Acrolein						2.00E-04						2.00E-04	
Benzene (including benzene)				5.93E-07			5.93E-07			5.93E-07			
Ethyl benzene	2.11E-08			2.11E-08	2.11E-08				2.11E-08				
Formaldehyde						2.52E-05						2.52E-05	
Hexane (n-)										4.01E-09			
Napthalene												1.48E-07	
PolyCyclic Aromatic Hydroc													
Propylene												1.08E-06	
Toluene (methyl benzene)				5.43E-07						5.43E-07		5.43E-07	
Xylenes (isomers and mixtur										1.73E-07		1.73E-07	
Total	2.11E-08			1.16E-06	2.11E-08	2.26E-04	5.93E-07			2.11E-08	1.31E-06	2.30E-04	

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HIC - Commercial													
Compound	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
Acetaldehyde												4.92E-05	
Acrolein						4.63E-03						4.63E-03	
Benzene (including benzene				1.37E-05			1.37E-05			1.37E-05			
Ethyl benzene	4.89E-07			4.89E-07	4.89E-07				4.89E-07				
Formaldehyde						5.83E-04						5.83E-04	
Hexane (n-)										9.26E-08			
Napthalene												3.43E-06	
PolyCyclic Aromatic Hydroc													
Propylene												2.51E-05	
Toluene (methyl benzene)				1.26E-05						1.26E-05		1.26E-05	
Xylenes (isomers and mixtur										4.00E-06		4.00E-06	
Total	4.89E-07			2.68E-05	4.89E-07	5.22E-03	1.37E-05		4.89E-07	3.04E-05		5.31E-03	