PERMIT BOOK

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 112010-002 Project Number: 2010-05-085

Parent Company: Oakwood Industries, LLC

Parent Company Address: RR1 Box 143, Memphis, MO 63555

Installation Name: Oakwood Industries, LLC

Installation Number: 199-0022

Installation Address: East Highway 136 and Highway 15 Junction, Memphis, MO 63555

Location Information: Scotland County, S7, T65N, R11E

Application for Authority to Construct was made for:
The installation of a wood furniture manufacturing facility that includes a wood furnace and three paints booths. This air contaminant source was constructed prior to receipt of a permit from Missouri Department of Natural Resources. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required.*

☐ Standard Conditions (on reverse) are applicable to this permit.

☑ Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

NOV - 3 2010

EFFECTIVE DATE

Kyra L Moore

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devises shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Departments' Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant sources(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Oakwood Industries, LLC
Scotland County, S7, T65N, R11E

1. Emission Limitation
   A. Oakwood Industries, LLC shall emit less than 40.0 tons of Volatile Organic Compounds (VOCs) in any consecutive 12-month period from the entire installation

   B. Oakwood Industries, LLC shall emit less than five (5.0) tons individually or twelve and a half (12.5) tons combined of Hazardous Air Pollutants (HAPs) in any consecutive 12-month period from the entire installation.

   Emissions Points for Entire Installation

EP-01	Sawing Activity (Controlled by Cyclone and Baghouse)
EP-02	Sanding Activity (Controlled by Cyclone and Baghouse)
EP-03	Paint Gun # 1 (Controlled by Paint Booth and Fabric Filter)
EP-04	Paint Gun # 2 (Controlled by Paint Booth and Fabric Filter)
EP-05	Paint Gun # 3 (Controlled by Paint Booth and Fabric Filter)
EP-06	Paint Gun # 4 (Controlled by Paint Booth and Fabric Filter)
EP-07	Sawdust Fired Furnace

   C. Attachment A, Attachment B and Attachment C or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 1.A and 1.B.

2. Control Device Requirement-Cyclone Dust Collector
   A. Oakwood Industries, LLC shall control emissions from the Sawing Activity and Sanding Activity (EP-01 and EP-02) using a cyclone dust collector as specified in the permit application.

   B. The cyclone dust collector shall be operated and maintained in accordance with the manufacturer's specifications.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

C. Oakwood Industries, LLC shall maintain an operating and maintenance log for the cyclone dust collector which shall include the following:
   1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
   2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

3. Control Device Requirement – Particulate Filter (90% Control Efficiency)

A. Oakwood Industries, LLC shall control PM_{10} emissions from all paint guns (EP-03, EP-04, EP-05 and EP-06) using particulate filters as specified in the permit application. The filter(s) shall be operated and maintained in accordance with the manufacturer's specifications.

B. Replacement particulate filters for the paint booths shall be kept on hand at all times. The particulate filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

C. Oakwood Industries, LLC shall maintain an operating and maintenance log for the paper filters which shall include the following:
   1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
   2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

4. Solvents and Cleaning Solutions

Oakwood Industries, LLC shall keep the solvents and cleaning solutions in sealed containers whenever the materials are not in use. Oakwood Industries, LLC shall provide and maintain suitable, easily read, permanent markings on all solvent and cleaning solution containers used with this equipment.

5. Operational Requirement – Spray Guns

Oakwood Industries, LLC shall only operate four spray guns at their facility.

6. Operational Requirement – Wood Furnace

The wood furnace (EP-07) shall only operate during the months of October through April.

7. Record Keeping and Reporting Requirements

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

A. Oakwood Industries, LLC shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include Material Safety Data Sheets (MSDS) for all materials used

B. Oakwood Industries, LLC shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW
Project Number: 2010-05-085
Installation ID Number: 199-0022
Permit Number:

Oakwood Industries, LLC
East Highway 136 and Highway 15 Junction
Memphis, MO 63555

Complete: May 28, 2010

Parent Company:
Oakwood Industries, LLC
RR1 Box 143
Memphis, MO 63555

Scotland County, S7, T65N, R11E

REVIEW SUMMARY

- Oakwood Industries, LLC has applied for authority to install a wood furniture manufacturing facility that operates a wood furnace and three paints booths with two paint booths having one spray gun and one paint booth having two spray guns.

- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are Xylene, Formaldehyde, and Ethyl Benzene. The wood furnace also emits Chlorodibenzo-P-Dioxins and Chlorodibenzo-P-Furans.

- The wood furnace emits Chlorodibenzo-P-Dioxins and Chlorodibenzo-P-Furans above the screen modeling action levels therefore the wood furnace has a time of year operational limit.

- None of the New Source Performance Standards (NSPS) apply to the installation.

- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation.

- The Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart JJ, National Emission Standards for Wood Furniture Manufacturing Operations applies to the proposed equipment. Since the wood furniture component of the manufacturing operations account for a least 90 percent of annual HAP emissions at the plant site, the facility is allowed via the MACT to take HAP emission limitations of 5 tons per year on individual HAPs and 12.5 tons per year on combined HAPs in order to be identified as an area source per the MACT and not be subject to the other provisions of this subpart.

- A cyclone dust collector and particulate filter are being used to control emissions associated with the new equipment.

- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of VOC and HAPs are conditioned to de minimis levels.

- This installation is located in Scotland County, an attainment area for all criteria pollutants.

- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

- Ambient air quality modeling was not performed since potential emissions of the application are conditioned below de minimis levels.

- Emissions testing are not required for the equipment.

- An basic operating permit application is required for this installation within 30 days of this permits issuance date.

- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Oakwood Industries is a wood furniture manufacturing company located in Memphis, Missouri. The activities that occur at this facility include wood cutting and sanding, staining, varnishing, and sealing. Oakwood Industries will be considered a de minimis source for construction permit purposes and will not require a basic operating permit.

No permits have been issued to Oakwood Industries, LLC from the Air Pollution Control Program.

PROJECT DESCRIPTION

Oakwood Industries is an existing wood manufacturing facility that has applied for construction permit as a result of an air inspection done by the Northwest Regional Office. No permits have been issued to Oakwood Industries therefore this permit will cover the entire installation. The wood cutting and sanding operation are controlled by a cyclone dust collector. Because these activities are controlled by a cyclone they are exempt from permitting under 10 CSR 6.061 2.DD.(IV) *Construction Permit Exemptions.* The staining, varnishing, and sealing operations occur inside three paint booths that use a particulate filter to control PM_{10} and $PM_{2.5}$ emissions. The particulate filter was given a 97 percent control of PM_{10} and 90 percent control of $PM_{2.5}$. There are three paint booths, each having the capability to handle all three applications. Two of the paint booths have only one spray gun while the other can handle two spray guns. All four spray guns are air assisted airless and have a maximum hourly design rate (MHDR) of 7.03 gallons per hour. The spray guns were given a transfer efficiency of 75

percent based on the average performance of an airless spray gun. Oakwood Industries uses multiple stains, varnishes, and sealers to finish their products. Below is a list of products used by Oakwood Industries. The worst case of these stains was used for emission calculations.

Table 1: Approved Products

Name:	Product Number/Code:
Minwax Wood Finish, Dark Walnut	2716
Bernyl Unisurfacer White Primer	DF5354-9001
Easy Wipe Stains (Medium Dark to Dark Hues	525,625,464,474,333,etc.
Boston Cherry HAPS Comp.	ALL-97599-HC
Black Matador 40	ART3320
Sher-wood BAC Wiping Stain, Clear Tint Base	S64T50
Rustic	ART4429
Cherry	FC-811
MC Cherry	OCS-113
Care Seal HS Catalyzed	FF5320
Catalyst 494	DV5942H
Euro Clear 40 Sheen	DM5319-0040
Xylene	300B

Oakwood Industries also operates a wood furnace that burns sawdust collected by the cyclone dust collector. The wood furnace MHDR is 0.03 ton of sawdust burned per hour.

EMISSIONS/CONTROLS EVALUATION

The project's potential emissions are primarily VOCs and HAPs that are associated with the new spray booth. Potential emissions for the spray booth were estimated using a mass balance approach and information obtained from the HAP Compliance Worksheet supplied by the applicant. 100 percent of the VOC and non-PM_{10} HAP content of the coating mixtures are assumed to be emitted into the atmosphere. The potential emissions of each individual HAP was determined for each material proposed. The highest potential emissions for total VOCs, combined HAPs, each individual HAPs and PM_{10} were then used to determine the worst case potential emissions for the project. Scaling (Ratioing) of the potential emissions due to the installation-wide VOC and HAP limitations were not taken into consideration.

Oakwood Industries will be taking a 5.0 ton individual HAP limit and a 12.5 ton total HAP limit in order to stay in compliance with Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart JJ, National Emission Standards for Wood Furniture Manufacturing Operations. To be sure Oakwood Industries does not overuse their stain and sealer coatings Oakwood Industries will also be taking a 40.0 ton VOC limit.

The PM_{10} and $PM_{2.5}$ emissions and control efficiency from the paint booths were calculated using the particle size distribution found in the CALIFORNIA EMISSION INVENTORY AND REPORTING SYSTEM (CEIDARS). The solids content of each

individual coating was calculated by taking the total density of each coating and subtracting the VOC content.

The emission factors used to calculate the wood furnace potential emissions were obtained from the Factor Information Retrieval (FIRE) Data System Version 6.25 (SCC 1-01-009-08). Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory *De Minimis* Levels	Existing Potential Emissions	Existing Actual Emissions	Potential Emissions of the Application	New Installation Conditioned Potential
$PM_{2.5}$	10.0	N/A	N/A	24.27	1.96
PM_{10}	15.0	N/A	N/A	8.82	1.87
SOx	40.0	N/A	N/A	0.14	N/A
NOx	40.0	N/A	N/A	0.07	N/A
VOC	40.0	N/A	N/A	921.58	<40.00
CO	100.0	N/A	N/A	3.38	N/A
HAPs	10.0/25.0	N/A	N/A	256.69	*<5.0/12.5
Xylene	10.0	N/A	N/A	251.02	*<5.0
Ethyl Benzene	10.0	N/A	N/A	5.50	N/A
Formaldehyde	2.0	N/A	N/A	0.17	N/A

N/A = Not Applicable; N/D = Not Determined
Conditioned potential emissions based on voluntary HAP limits taken to stay in compliance with the Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart JJ, National Emission Standards for Wood Furniture Manufacturing Operations.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of VOC are below de minimis levels.

APPLICABLE REQUIREMENTS

Oakwood Industries, LLC shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information,* 10 CSR 10-6.110
  The emission fee is the amount established by the Missouri Air Conservation

Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.

- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170

- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220

- *Restriction of Emission of Odors*, 10 CSR 10-3.090

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400

- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260

- *Maximum Achievable Control Technology (MACT) Regulations*, 10 CSR 10-6.075, *National Emission Standards for* Wood Furniture Manufacturing Operations*,* 40 CFR Part 63, Subpart JJ

- *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating*, 10 CSR 10-3.060

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

_____ _____

Gerad Fox Date
Environmental Engineer

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated August 3, 2010, received August 3, 2010, designating Oakwood Industries, LLC as the owner and operator of the installation.
- U. Factor Information Retrieval (FIRE) Data System Version 6.25
- Northeast Regional Office Report of Air Inspection, dated April 30, 2010.

Attachment A - VOC Compliance Worksheet

Oakwood Industries, LLC
Scotland County, S7, T65N, R11E
Project Number: 2010-05-085
Installation ID Number: 199-0022
Permit Number: _____

This sheet covers the month of _____ in the year _____.

Copy this sheet as needed.

Column 1	Column 2 (a)	Column 3	Column 4	Column 5	Column 6
Material Used, (Name)	Amount of Material Used (gal)	*Density (lbs/gal)	**VOC Content (Weight %)	***VOC Content (lbs/gal)	VOC Emissions (Tons)
(b) Total VOC Emissions Calculated for this Month in Tons:					
(c) 12-Month VOC Emissions Total from Previous Month's Worksheet in Tons:					
(d) Monthly VOC Emissions Total (b) from Previous Year's Worksheet in Tons:					
(e) Current 12-month Total of VOC Emissions in Tons: [(b) + (c) - (d)]					

*** If Density is not given use the following formula to calculate Density → (Specific Gravity) x (62.4) x (0.1337) = Density in (lbs/gal)**
**** VOC Content in weight percentage can be found in the MSDS of each specific product.**
***** VOC Content in lb/gal is calculated using the following Density (Column 3) X VOC Content (Column 4). In some case the VOC Content in lbs /gal will be directly given in the MSDS and no calculation for the VOC Content in lbs/gal will be necessary.**
INSTRUCTIONS:
(a) Usage is in gallons - [Column 2] x [Column 5] x [0.0005] = [Column 6];
(b) Summation of [Column 5] in Tons;
(c) 12-Month VOC emissions (e) from last month's Attachment A in Tons;
(d) Monthly VOC emissions total (b) from the previous year's Attachment A in Tons;
(e) Calculate the new 12-month combined VOC emissions total. A 12-Month VOC emissions total (e) of less than **40.0** tons indicates compliance.

Attachment B – Individual HAP Compliance Worksheet

Oakwood Industries, LLC
Scotland County, S7, T65N, R11E
Project Number: 2010-05-085
Installation ID Number: 199-0022
Permit Number: ________

Individual HAP:__________________________ *SMAL__________

This sheet covers the month of ______________ in the year ______________.

Copy this sheet as needed.

Column 1	Column 2 (a)	Column 3	Column 4	Column 5
Material Used, (Name, HAP CAS #)	Amount of Material Used (gal)	**Density (lbs/gal)	HAP Content (Weight %)	HAP Emissions (Tons)
(b) Total Individual HAP Emissions Calculated for this Month in Tons:				
(c) 12-Month Individual HAP Emissions Total from Previous Month's Worksheet in Tons:				
(d) Monthly Individual HAP Emissions Total (b) from Previous Year's Worksheet in Tons:				
(e) Current 12-month Total of Individual HAP Emissions in Tons: [(b) + (c) - (d)]				

***Screening Model Action Level (SMAL). Can be found in Attachment D.**
****If Density is not given use the following formula to calculate Density → (Specific Gravity) x (62.4) x (0.1337) = Density in (lbs/gal)**
INSTRUCTIONS:
(a) Usage is in gallons - [Column 2] x [Column 3] x [Column 4] x [0.0005] = [Column 5];
(b) Summation of [Column 5] in Tons;
(c) 12-Month Individual HAP emissions (e) from last month's Attachment A in Tons;
(d) Monthly Individual HAP emissions total (b) from the previous year's Attachment A in Tons;
(e) Calculate the new 12-month combined Individual HAP emissions total. A 12-Month Individual HAP emissions total (e) of less than **5.0** tons or its individual SMAL indicates compliance.

Attachment C – Aggregate HAP Compliance Worksheet

Oakwood Industries, LLC
Scotland County, S7, T65N, R11E
Project Number: 2010-05-085
Installation ID Number: 199-0022
Permit Number: _____

This sheet covers the month of _____ in the year _____.
(month, year) (month, year)

Copy this sheet as needed.

Column 1 (a)	Column 2 (b)
List each HAP emitted from each individual Attachment B (HAP CAS #))	Total Individual HAP emissions for the Month from Attachment B [Column 5 (b)] (in Tons)

(c) Total Aggregate HAP Emissions Calculated for this Month, in Tons:	
(d) 12-Month Aggregate HAP Emissions Total (f) from Previous Month's Worksheet C, in Tons:	
(e) Monthly Aggregate HAP Emissions Total (c) from Previous Year's Worksheet C, in Tons:	
(f) Current 12-month Total of Aggregate HAP Emissions in Tons: [(c) + (d) - (e)]:	

INSTRUCTIONS:
(a) Individually list each HAP emitted from this installation;
(b) Record the amount of HAP emissions already calculated for Attachment B in [Column 5 (b)] in Tons;
(c) Summation of [Column 2] in Tons;
(d) Record the previous 12-Month aggregate HAP emission total (f) from last month's Attachment C, in Tons;
(e) Record the monthly aggregate HAP emission total (c) from previous year's Attachment C, in Tons:
(f) Calculate the new 12-month aggregate HAP emissions total. A 12-Month HAP emissions total of less than **12.5** indicate compliance.

Attachment D
Hazardous Air Pollutant (HAP) Screening Model Action Levels (SMAL)

Chemical	CAS#	SMAL (tons/ year)	Synonyms
Acetaldehyde	75-07-0	9	Acetic Aldehyde, Aldehyde, Ethanal, Ethyl Aldehyde
Acetamide	60-35-5	1	Acetic Acid Amide, Ethanamide
Acetonitrile	75-05-8	4	Methyl Cyanide, Ethanenitrile, Cyanomethane
Acetophenone	98-86-2	1	Acetylbenzene, Methyl Phenyl Ketone, Hypnone
Acetylaminofluorine, [2-]	53-96-3	0.005	N-2-Fluorenyl Acetaminde, N-Fluroen-2-yl Acetamide, 2-Acetamideofluorene
Acrolein	107-02-8	0.04	Acrylaldehyde, Acrylic Aldehyde, Allyl Aldehyde, Propenal
Acrylamide	79-06-1	0.02	Propenamide, Acrylic Amide, Acrylamide Monomer, Ethylenecarboxamide
Acrylic Acid	79-10-7	0.6	Propenoic Acid, Ethylene Carboxylic Acid, Vinylformic Acid
Acrylonitrile	107-13-1	0.3	Vinyl Cyanide, Cyanoethylene, Propenenitrile
Allyl Chloride	107-05-1	1	1-Chloro-2-Propene, 3-Chloropropylene, Chloroallylene, Alpha-Propylene
Aminobiphenyl, [4-]	92-67-1	1	Biphenyline, P -Phenylaniline, Xenylamine, 4-Aminodiphenyl, 4-Biphenylamine
Aniline	62-53-3	1	Aminobenzene, Phenylamine, Aniline Oil, Aminophen, Arylamine
Anisidine, [Ortho-]	90-04-0	1	O-Methoxyaniline
Antimony Compounds (except those specifically listed)		5	Antimony (Pentachloride, Tribromide, Trichloride, Trifluoride)
Antimony Pentafluoride	7783-70-2	0.1	
Antimony Potassium Tartrate	28300-74-5	1	
Antimony Trioxide	1309-64-4	1	
Antimony Trisulfide	1345-04-6	0.1	
Arsenic and Inorganic Arsenic Compounds		0.005	Arsenic (Diethyl, Disulfide, Pentoxide, Trichloride, Trioxide, Trisulfide), Arsinine, Arsenous Oxide
Benz(a)Anthracene	56-55-3	0.01	
Benz(c)acridine	225-51-4	0.01	
Benzene	71-43-2	2	Benzol, Phenyl Hydride, Coal Naphtha, Phene, Benxole, Cyclohexatriene
Benzidine	92-87-5	0.0003	4,4'-Biphenyldiamine, P-Diaminodiphenyl, 4,4'-Diaminobiphenyl, Benzidine Base
Benzo(a)pyrene	50-32-8	0.01	
Benzo(b)fluoranthene	205-992	0.01	
Benzotrichloride	98-07-7	0.006	Benzoic Trichloride, PhenylChloroform, Trichloromethylbenzene
Benzyl Chloride	100-44-7	0.1	Alpha-Chlorotoluene, Tolyl Chloride
Beryllium Compounds (except Beryllium Salts)		0.008	Beryllium (Acetate, Carbonate, Chloride, Fluoride, Hydroxide, Nitrate, Oxide)
Beryllium Salts		0.00002	

Biphenyl*	92-52-4	10	
Bis(Chloroethyl)Ether	111-44-4	0.06	Dichloroethyl ether, Dichloroether, Dichloroethyl Oxide, BCEE
Bis(Chloromethyl)Ether	542-88-1	0.0003	BCME, Sym-Dichloromethyl ether, Dichloromethyl Ether, Oxybis-(Chloromethane)
Bromoform*	75-25-2	10	Tribromomethane
Butadiene, [1,3-]	106-99-0	0.07	Biethylene, Bivinyl, Butadiene Monomer, Divinyl Erythrene, Vinylethylene
Butylene Oxide, [1,2-]	106-88-7	1	1,2-Epoxybutane, 1-Butene Oxide, 1,2-Butene Oxide, Butylene Oxide, Ethylethylene
Cadmium Compounds		0.01	Cadmium (Dust, Fume, Acetate, Chlorate, Chloride, Fluoride, Oxide, Sulfate, Sulfide)
Calcium Cyanamide*	156-62-7	10	
Caprolactam*	105-60-2	10	
Captan*	133-06-2	10	
Carbaryl*	63-25-2	10	
Carbon Disulfide	75-15-0	1	Carbon Bisulfide, Dithiocarbonic Anhydride
Carbon Tetrachloride	56-23-5	1	Tetrachloromethane, Perchloromethane
Carbonyl Sulfide	463-58-1	5	Carbon Oxide Sulfide, Carbonoxysulfide
Catechol	120-80-9	5	Pyrocatechol, O-Dihydroxybenzene
Chloramben	133-90-4	1	3-Amino-2,5-Dichlorobenzoic Acid, Amben, Amiben*, Vegiben* (*Trademark)
Chlordane	57-74-9	0.01	ENT9932, Octachlor
Chlorine	7782-50-5	0.1	Bertholite
Chloroacetic Acid	79-11-8	0.1	Monochloroacetic Acid, Chloroethanoic Acid
Chlorobenzene	108-90-7	10	
Chloroacetophenone, [2-]	532-27-4	0.06	Phenacyl Chloride, Chloromethyl Phenyl Ketone, Tear Gas, Mace
Chlorobenzilate	510-15-6	0.4	Ethyl-4,4'-Dichlorobenzilate, Ethyl-4,4'-Dichlorophenyl Glycollate
Chloroform	67-66-3	0.9	Trichloromethane
Chloromethyl Methyl Ether	107-30-2	0.1	CMME, Methyl Chloromethyl Ether, Chloromethoxymethane, Monochloromethyl Ether
Chloroprene	126-99-8	1	2-Chloro-1,3-Butadiene, Chlorobutadiene, Neoprene Rubber Compound
Chromic Chloride	10025-73-7	0.1	
Chromium Compounds (except Hexavelent)		5	Chromium, Chromium(II) Compounds, Chromium (III) Compounds
Chromium Compounds, Hexavalent		0.002	Chromium (VI)
Chrysene	218-01-9	0.01	
Cobalt Carbonyl	12010-68-1	0.1	
Cobalt Metal (and compounds, except those specifically listed)		0.1	Cobalt (Bromide, Chloride, Diacetate, Formate, Nitrate, Oxide, Sulfamate)
Coke Oven Emissions	8007-	0.03	Coal Tar, Coal Tar Pitch, Coal Tar Distillate

	45-2		
Cresol, [Meta-]	108-39-4	1	3-Cresol, M-Cresylic Acid, 1-Hydroxy-3-Methylbenzene, M-Hydroxytoluene
Cresol, [Ortho-]	95-48-7	1	2-Cresol, O-Cresylic Acid, 1-Hydroxy-2-Methylbenzene, 2-Methylphenol
Cresol, [Para-]	106-44-5	1	4-Cresol, P-Cresylic Acid, 1-Hydroxy-4-Methylbenzene, 4-Hydroxytoluene
Cresols/ Cresylic Acid (isomers and mixture)	1319-77-3	1	
Cumene	98-82-8	10	
Cyanide Compounds (except those specifically listed)[1]	20-09-7	5	Cyanide (Barium, Chlorine, Free, Hydrogen, Potassium, Silver, Sodium, Zinc)
DDE (p,p'-Dichlorodiphenyl Dichloroethylene	72-55-9	0.01	
Di(2-Ethylhexyl)Phthalate, (DEHP)	117-81-7	5	Bis(2-ethylhexyl)Phthalate, Di(2-Ethylhexyl)Phthalate, DOP, Di-Sec-Octyl Phthalate
Diaminotoluene, [2,4-]	95-80-7	0.02	2,4-Toluene Diamine, 3-Amino-Para-Toluidine, 5-Amino-Ortho-Toluidine
Diazomethane	334-88-3	1	Azimethylene, Diazirine
Dibenz(a,h)anthracene	53-70-3		
Dibenzofuran	132-64-9	5	Diphenylene Oxide
Dibenzopyrene, [1,2:7,8]	189-55-9		
Dibutylphthalate*	84-74-2	10	
Dibromo-3-Chloropropane, [1,2-]	96-12-8	0.01	DBCP
Dibromomethane, [1,2-]	106-93-4	0.1	Ethylene Dibromide, Ethylene Bromide, Sym-Dibromoethane
Dichlorobenzene, [1,4-]	106-46-7	3	1,4-Dichloro-P-DCB, 1-4-DCB, PDB, PDCB
Dichlorobenzidene, [3,3-]	91-94-1	0.2	4,4'-Diamino-3,3'-Dichlorobiphenyl, 3,3'-Dichlorobiphenyl-4,4'-Diamine, DCB
Dichloroethane, [1,1-]	75-34-3	1	Ethylidene Dichloride, 1,1-Ethylidene Dichloride, Asymmetrical Dichlorethane
Dichloroethane, [1,2-]	107-06-2	0.8	Ethylene Dichloride, Glycol Dichloride, Ethylene Chloride
Dichloroethylene, [1,1-]	75-35-4	0.4	Vinylidene Chloride, DCE, VDC
Dichlorophenoxyacetic acid, [2,4], salt and esters*	94-75-7	10	
Dichloropropane, [1,2-]	78-87-5	1	Propylene Dichloride
Dichloropropene [1,3-]	542-75-6	1	1,3-Dichloropropylene, Alpha-Chlorallyl Chloride
Dichlorvos	62-73-7	0.2	DDVP, 2,2-Dichlorvinyldimethylphosphate
Diethanolamine	11-42-2	5	Bis(2-Hydroxyethyl)Amine, 2,2'-Dihydroxydiethylamine, Di(2-Hydroxyethyl)Amine
Diethyl Sulfate	64-67-5	1	Diethyl Ester Sulfuric Acid, Ethyl Sulfate
Dimethoxybenzidine, [3,3-]	119-90-4	0.1	Fast Blue B Base, Dianisidine, O-Dianisidine
Dimethylbenz(a)anthracene, [7,12]	57-97-6	0.01	
Dimethyl Benzidine, [3,3-]	119-93-7	0.008	O-Tolidine, Bianisidine, 4,4'-Diamino-3,3'-Dimethylbiphenyl, Diaminoditoyl
Dimethyl Carbamoyl Chloride	79-44-7	0.02	DMCC, Chloroformic Acid Dimethyl Amide, Dimethyl Carbamyl Chloride
Dimethyl Formamide	68-12-2	1	DMF, Formyldimethylamine

Dimethyl Hydrazine, [1,1-]	57-14-7	0.008	Unsymmetrical Dimethylhydrazine, UDMH, Dimazine
Dimethyl Phthalate*	131-11-3	10	
Dimethyl Sulfate	77-78-1	0.1	Sulfuric Acid Dimethyl Ester, Methyl Sulfate
Dimethylaminoazobenzene, [4-]	60-11-7	1	N,N-Dimethyl-P-Phenylazo-Aniline, Benzeneazo Dimethylaniline
Dimethylaniline, [N,N-]	121-69-7	1	N,N-Diethyl Aniline, N,N-Dimethylphenylamine, DMA
Dinitro-O-Cresol, [4,6-] and salts	534-52-1	0.1	DNOC, 3,5-Dinitro-O-Cresol, 2-Methyl-4,6-Dinitrophenol
Dinitrophenol, [2,4-]	51-28-5	1	DNP
Dinitrotoluene, [2,4-]	121-14-2	0.02	Dinitrotoluol, DNT, 1-Methyl-2,4-Dinitrobenzene
Dioxane, [1,4-]	123-91-1	6	1,4-Diethyleneoxide, Diethylene Ether, P-Dioxane
Diphenylhydrazine, [1,2-]	122-66-7	0.09	Hydrazobenzene, N,N'-Diphenylhydrazine, N,N'-Bianiline, 1,1'-Hydrodibenzene
Diphenylmethane Diisocyanate, [4,4-]	101-68-8	0.1	Methylene Bis(Phenylisocyanate), Methylene Diphenyl Diisocycante, MDI
Epichlorohydrin	106-89-8	2	1-Chloro-2,3-Epoxypropane, EPI, Chloropropylene Oxide, Chloromethyloxirane
Ethoxy Ethanol [2-]*	110-80-5	10	
Ethyl Acrylate	140-88-5	1	Ethyl Propenoate, Acrylic Acid Ethyl Ester
Ethyl Benzene*	100-41-4	10	
Ethyl Chloride*	75-00-3	10	
Ethylene Glycol*	107-21-1	10	
Ethylene Imine (Aziridine)	151-56-4	0.003	Azacyclopropane, Dimethyleneimine, Ethylenimine, Vinylamine, Azirane
Ethylene Oxide	75-21-8	0.1	1,2-Epoxyethane, Oxirane, Dimethylene Oxide, Anprolene
Ethylene Thiourea	96-45-7	0.6	2-Imidazolidinethione, ETU
Fluomine	62207-76-5	0.1	
Formaldehyde	50-00-0	2	Oxymethylene, Formic Aldehyde, Methanal, Methylene Oxide, Oxomethane
Glycol Ethers (except those specifically listed)[2]		5	
Heptachlor	76-44-8	0.02	1,4,5,6,7,8,8A-Heptachloro-3A,4,7,7A-Tetrahydro-4,7-Methanoindiene
Hexachlorobenzene	118-74-1	0.01	Perchlorobenzene, HCB, Pentachlorophenyl Benzene, Phenyl Perchloryl
Hexachlorobutadiene	87-68-3	0.9	Perchlorobutadiene, 1,3-Hexachlorobutadiene, HCB
Hexachlorocyclopentadiene	77-47-4	0.1	HCCPD, HEX
Hexachloroethane	67-72-1	5	Perchloroethane, Carbon Hexachloride, HCE, 1,1,1,2,2,2-Hexachloroethane
Hexamethylene Diisocyanate, 1,6-	822-06-0	0.02	1,6-Diisocyanatohexane, 1,6-Hexanediol Diisocyanate
Hexamethylphosphoramide	680-31-9	0.01	Hexamethylphosphoric Triamide, HEMPA, Hexametapol, Hexamethylphophoramide
Hydrazine	302-01-2	0.004	Methylhydrazine, Diamide, Diamine, Hydrazine Base
Hydrochloric Acid*	7647-01-0	10	

Hydrogen Fluoride	7664-39-3	0.1	Hydrofluoric Acid Gas, Fluorhydric Acid Gas, Anhydrous Hydrofluoric Acid
Hydrogen Selenide	7783-07-5	0.1	
Hydroquinone	123-31-9	1	Quinol, Hydroquinol, P-Diphenol, 1,4-Benzenediol, Hydrochinone, Arctuvin
Indeno(1,2,3-cd)Pyrene	193-39-5	0.01	
Isophorone*	78-59-1	10	
Lead and Compounds (except those specifically listed)	20-11-1	0.01	Lead (Acetate, Arsenate, Chloride, Fluoride, Iodide, Nitrate, Sulfate, Sulfide)
Lindane [Gamma-Hexachlorocyclohexane]	58-89-9	0.01	Benzene Hexachloride – Gamma Isomer
Maleic Anhydride	108-31-6	1	2,5-Furanediene, Cis-Butenedioic Anhydride, Toxilic Anhydride
Manganese and Compounds (except those specifically listed)	20-12-2	0.8	Manganese (Acetate, Chloride, Dioxide, (II)-Oxide, (III)-Oxide, (II)-Sulfate
Mercury Compounds (except those specifically listed)	20-13-3	0.01	Mercury Compounds (Methyl-, Ethyl-, Phenyl-)
Mercury Compounds (Inorganic)	20-13-3	0.01	Mercury (Chloride, Cyanide, (I,II)-[Bromide, Iodide, Nitrate, Sulfate], Oxide)
Methanol*	67-56-1	10	
Methoxychlor*	72-43-5	10	
Methoxy Ethanol, [2-]*	108-86-4	10	
Methyl Bromide*	74-83-9	10	Bromomethane
Methyl Chloride*	74-87-3	10	Chloromethane
Methyl Chloroform*	71-55-6	10	1,1,1,-Trichloroethane
Methyl Hydrazine	60-34-4	0.06	Monomethylhydrazine, Hydrozomethane, 1-Methylhydrazine
Methyl Iodide	74-88-4	1	Idomethane
Methyl Isobutyl Ketone*	108-10-1	10	
Methyl Isocyanate	624-83-9	0.1	Isocyanatomethane,Isocyanic Acid, Methyl Ester
Methyl Methacrylate*	80-62-6	10	
Methyl Tert-Butyl Ether*	12108-13-3	10	
Methylcyclopentadienyl Manganese	12108-13-3	0.1	
Methylene Bis(2-Chloroaniline), [4,4-]	101-14-4	0.2	Curene, MOCA, 4,4'-Diamino-3,3'-Dichlorodiphenylmethane
Methylene Chloride*	75-09-2	10	Dichloromethane
Methylenedianiline, [4,4-]	101-77-9	1	4,4'-Diaminodipheylmethane, DDM, MDA, Bis(4-Aminophenyl)Methane, DAPM
Naphthanlene*	91-20-3	10	
Nickel Carbonyl	13463-39-3	0.1	
Nickel Compounds (except those specifically listed)		1	Nickel (Acetate, Ammonium Sulfate, Chloride, Hydroxide, Nitrate, Oxide, Sulfate)
Nickel Refinery Dust	12035-72-2	0.08	
Nickel Subsulfide		0.04	
Nitrobenzene	98-95-3	1	Nitrobenzoil, Oil of Mirbane, Oil of Bitter Almonds
Nitrobiphenyl, [4-]	92-93-3	1	4-Nitrodiphenyl, P-Nitrobiphenyl, P-Nitrophenyl, PNB
Nitrophenol, [4-]	100-02-	5	4-Hydroxynitrobenzene, Para-Nitrophenol

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Nitropropane, [2-]	79-46-9	1	Dimethylnitromethane, Sec-Nitropropane, Isonitropropane, Nitroisopropane
Nitroso-N-Methylurea, [N-]	684-93-5	0.0002	N-Methyl-N-Nitrosourea, N-Nitroso-N-Methylcarbamide
Nitrosodimethylamine, [N-]	62-75-9	0.001	Dimethylnitrosamine, DMN, DMNA
Nitrosomorpholine, [N-]	59-89-2	1	4-Nitrosomorpholine
Parathion	56-38-2	0.1	DNTP, Monothiophosphate, Diethyl-P-Nitrophenyl
PCB (Polychlorinated Biphenyls)	1336-36-3	0.009	Aroclors
Pentachloronitrobenzene	82-68-8	0.3	Quintobenzene, PCNB, Quiniozene
Pentachlorophenol	87-86-5	0.7	PCP, Penchlorol, Pentachlorophenate, 2,3,4,5,6-Pentachlorophenol
Phenol	108-95-2	0.1	Carbolic Acid, Phenic Acid, Phenylic Acid, Phenyl Hydrate, Hydroxybenezene
Phenyl Mercuric Acetate	62-38-4	0.01	
Phenylenediamine, [p-]*	106-50-3	10	
Phosgene	75-44-5	0.1	Carbonyl Chloride, Carbon Oxychloride, Carbonic Acid Dichloride
Phosphine	7803-51-2	5	Hydrogen Phosphide, Phosphoretted Hydrogen, Phosphorus Trihydride
Phosphorous (Yellow or White)	7723-14-0	0.1	
Phthalic Anhydride	85-44-9	5	Phthalic Acid Anhydride, Benzene-O-Dicarboxylic Acid Anhydride, Phthalandione
Polycyclic Organic Matter (except those specifically listed)	TP15	0.01	POM, PAH, Polyaromatic Hydrocarbons,
Potassium Cyanide	151508	0.1	
Propane Sultone, [1,3-]	1120-71-4	0.03	1,2-Oxathiolane-2,2-Dioxide, 3-Hydroxy-1-Propanesulphonic Acid Sultone
Propiolactone, [Beta-]	57-57-8	0.1	2-Oxeatanone, Propiolactone, BPL, 3-Hydroxy-B-Lactone-Propanoic Acid
Propionaldehyde	123-38-6	5	Propanal, Propyl Aldehyde, Propionic Aldehyde
Propoxur*	114-26-1	10	Baygone
Propylene Oxide	75-56-9	5	1,2-Epoxypropane, Methylethylene Oxide, Methyl Oxirane, Propene Oxide
Propyleneimine, [1,2-]	75-55-8	0.003	2-Methyl Aziridine, 2-Methylazacyclopropane, Methylethyleneimine
Quinoline	91-22-5	0.006	1-Azanaphthalene, 1-Benzazine, Benzo(B)Pyridine, Chinoleine, Leucoline
Quinone	016-51-4	5	Benzoquinone, Chinone, P-Benzoquinone, 1,4-Benzooquinone
Selenium and Compounds (except those specifically listed)	7782-49-2	0.1	Selenium (Metal, Dioxide, Disulfide, Hexafluoride, Monosulfide)
Sodium Cyanide	143339	0.1	
Sodium Selenate	13410010	0.1	
Sodium Selenite	10102018 8	0.1	
Styrene	100-42-5	1	Cinnamene, Cinnamol, Phenethylene, Phenylethylene, Vinylbenzene
Styrene Oxide	96-09-3	1	Epoxyethylbenzene, Phenylethylene Oxide, Phenyl Oxirane, Epoxystyrene

Tetrachlorodibenzo-P-Dioxin	1746-01-6	6.00E-07	
Tetrachloroethane, [1,1,2,2-]	79-34-5	0.3	Sym-Tetachloroethane, Acetylene Tetrachloride, Ethane Tetrachloride
Tetrachloroethylene*	127-18-4	10	Perchloroethylene
Tetraethyl Lead	78-00-2	0.01	
Tetramethyl Lead	75-74-1	0.01	
Titanium Tetrachloride	7550-45-0	0.1	Titranium Chloride
Toluene*	108-88-3	10	
Toluene Diisocyanate, [2,4-]	584-84-9	0.1	TDI, Tolylene Diisocyante, Diisocyanatoluene
Toluidine, [Ortho-]	95-53-4	4	Ortho-Aminotoluene, Ortho-Methylaniline, 1-Methyl-1,2-Aminobenzene
Toxaphene	8001-35-2	0.01	Chlorinated Camphene, Camphechlor, Polychlorcamphene
Trichlorobenzene*	120-82-1	10	
Trichloroethane, [1,1,2-]	79-00-5	1	Vinyl Trichloride, Beta-Trichloroethane
Trichloroethylene*	79-01-6	10	
Triethylamine*	121-44-8	10	
Trichlorophenol, [2,4,5-]	95-95-4	1	2,4,5-TCP
Trichlorophenol, [2,4,6-]	88-06-2	6	2,4,6-TCP
Trifluralin	1582-09-8	9	2,6-Dinitro-N-N-Dipropyl-4-(Trifluoromethyl)Benzeneamine
Trimethylpentane, [2,2,4-]	540-84-1	5	Isobutyltrimethylethane, Isoctane
Urethane [Ethyl Carbamate]	51-79-6	0.8	Ethyl Urethane, O-Ethylurethane, Leucothane, NSC 746, Urethan
Vinyl Acetate	108-05-4	1	Acetic Acid Vinyl Ester, Vinyl Acetate Monomer, Ethenyl Ethanoate
Vinyl Bromide	593-60-2	0.6	Bromoethylene, Bromoethene
Xylenes (isomers and mixtures)*	1330-20-7	10	
Xylene, m-*	108-38-3	10	
Xylene, o-*	95-47-6	10	
Xylene, p-*	106-42-3	10	

[1] X'CN where X'H' or any other group where a foraml dissociation may occur, for example, KCN or $Ca(CN)_2$

[2] Includes mono- and diethers of ethylene glycol, diethylene glycol and triethylene glycol R-(OCH_2CH_2)n-OR' where n = 1, 2, or; R=Alkyl or oryl groups; R' R, H or groups which, when removed, yield glycol ethers with the structure R-(OCH_2CH_2)n-OH. Polymers and ethylene glycol monobutyl ether are excluded from the glycol category.