

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: **11 2 0 0 9 - 0 1 3** Project Number: 2009-07-074

Parent Company: Production Castings

Parent Company Address: 1410 West Lark Industrial Park, Fenton, MO 63026

Installation Name: Production Castings

Installation Address: 1405 West Lark Industrial Park, Fenton MO 63026

Location Information: Jefferson County, S6, T43N, R5E

Application for Authority to Construct was made for:

The installation of one (1) wet spray booth with one spray gun rated at 5 gallons per hour, two (2) dry powder coating booths rated at 0.01 tons per hour each, and a 0.35 Million British Thermal Units per hour (MMBtu/hr) natural gas burn off oven. 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 0 2009

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 devices 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 source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. 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 source(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.

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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."

Production Castings
Jefferson County, S6, T43N, R5E

1. **Superseding Condition**
The conditions of this permit supersede all special conditions found in the previously issued construction permit (Permit Number 1197-024 with project number 099-0115-006) from the Air Pollution Control Program.
2. **Emission Limitation for VOC and HAPS**
 - A. Production Castings shall emit less than 40.0 tons of Volatile Organic Compounds (VOCs) from the entire installation in any consecutive 12-month period. These limits apply to the VOC emissions from all equipment and processes installed or permitted at Production Castings as of the issuance date of this permit.
 - B. Production Castings shall emit less than ten (10.0) tons individually or twenty-five (25.0) tons combined of Hazardous Air Pollutants (HAPs) from the entire installation in any consecutive 12-month period. These limits apply to the HAP emissions from all equipment and processes installed or permitted at Production Castings as of the issuance date of this permit.
 - C. Production Castings shall emit shall emit less than 0.02 tons (40 lbs) of Hexamethylene Di-Isocyanate from the entire installation in any consecutive 12-month period. These limits apply to the HAP emissions from all equipment and processes installed or permitted at Production Castings as of the issuance date of this permit.
 - D. Attachment A, Attachment B, Attachment C and Attachment D or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 2.A., 2.B., and 2.C. Production Castings 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 in this equipment.

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SPECIAL CONDITIONS:

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

- E. Production Castings shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 2.D. indicate that the source exceeds the limitation of Special Conditions Number 2.A., 2.B., and 2.C.
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- 3. Control Device – Filter 89.5% control
Production Castings shall control PM₁₀ from the wet paint booth (EP10) and the dry powder coating booths (EP09), while in operation, using a paper filter as specified in the installation's control device operating procedures. The filter(s) shall be operated and maintained in accordance with the installation's control device operating procedures.
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- 4. Use of Alternative Coatings in Wet Paint Booth (EP10)
 - A. When considering using an alternative material in the installation (EP10) that is different than a material listed in the Application for Authority to Construct, Production Castings shall calculate the potential emissions of each individual HAP in the alternative material.
 - B. Production Castings shall seek approval from the Air Pollution Control Program before use of the alternative material in the following cases:
 - i. If the potential individual HAP emissions for the alternative material is equal to or greater than the Screening Model Action Levels (SMAL) for any compound listed in Attachment F. Production Castings may scale the potential emissions of the individual HAP with a SMAL to account for the limitations stated in Special Condition 2.
 - C. Attachment E or an equivalent form shall be used to show compliance with Special Condition 4.A. and 4.B. Production Castings 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.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2009-07-074
Installation ID Number: 099-5012
Permit Number:

Production Castings
1405 West Lark Industrial Park
Fenton MO 63026

Complete: September 01, 2009

Parent Company:
Production Castings
1410 West Lark Industrial Park
Fenton, MO 63026

Jefferson County, S6, T43N, R5E

REVIEW SUMMARY

- Production Castings has applied for authority to install one (1) wet spray booth rated at 5 gallons per hour, two (2) dry powder coating booths, and a 0.35 Million British Thermal Units per hour (MMBtu/hr) natural gas burn off oven.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are hexamethylene, 1, 6-diisocyanate with CAS number 822-06-0, Xylene with CAS number 108-38-3, Cumene with CAS number 98-82-8, Methyl 2-nitropropane with CAS number 79-46-9, Methyl Isobutyl Ketone with CAS number 108-10-1 and 2-nitropropane with CAS number 79-46-9.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- Filters in the wet paint booth and dry paint booths are being used to control the PM₁₀ emissions from the equipment in this permit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential of VOC and HAP emissions are limited to below de minimis levels.
- This installation is located in Jefferson County, a nonattainment area for ozone (O₃) and an attainment area for all other criteria air pollutants.

- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was not performed since conditioned potential emissions of the application are below de minimis levels and no model is currently available which can accurately predict ambient ozone concentrations caused by this installation's VOC emissions.
- Emissions testing are not required for the source.
- No operating permit is required for this source because it has taken limits to remain a minor source.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Productions Castings operates a Zinc die casting operation in Jefferson County. This installation makes zinc die cast parts. It is a one stop source shop from design to finished product. The installation makes zinc cast parts from miniature to six pounds. The facility offers a complete finishing facility with plating, painting and powder coating.

This is a multiple building installation with County-Plant Identification No. 099-5012. The following addresses are associated with county plant identification number 099-5012, those buildings located at 1318 West Lark Industrial Lane, 1410 West Lark Industrial Park, and at 1405 West Lark Industrial and the building located at 1448 West Lark Industrial Park, in Fenton, Missouri. PC Plating located at 1318 West Lark Industrial Lane is also a part of Production Casting Incorporated. Although this process has not reported any emission sources, it uses the same plant Identification, shares SIC codes and management as reported on their web site.

The building at 1448 West Lark Industrial Park is part of the multi building installation 099-5012 and is a zinc casting operation, constructed in 1976. However, it was not required to obtain a permit as it is a grandfathered installation. It has die casting machines, melting equipment and degreasing operations, grinders and sanders and polishers. The PTE of the installation was calculated in the evaluation of permit 1197-024.

The installation took limits to below de minimis levels on the entire installation in permit 1197-024 and as a result no Operating Permit was required. The following permits have been issued to Production Castings from the Air Pollution Control Program.

Table 1: Permits issued to 099-5012

Permit Number	Description
1197-024	1 wet spray booth two dry powder coating booths

PROJECT DESCRIPTION

Production Casting requested to move the paint equipment from 1410 West Lark Industrial Park (previously permitted in Permit No. 1197-024) to 1405 West Lark Industrial Park. The installation reported that the original permit authorized an electric burn off oven that was inadvertently misidentified and is a 0.35 MMBtu/hr natural gas fired burn off oven. The one gun paint booth is rated at 5 gallons of paint per hour. The installation paints a wide variety of components of all shapes and sizes and a 35 percent transfer efficiency was used for the wet paint booth. No transfer efficiency was assigned in the 1197-024 permit.

The powder coating operation consists of two booths with one gun in each booth. This operation was given a 95 percent transfer efficiency as it is an electrodepositing powder coating process with a combined throughput of both booths of 0.02 tons per hour. The emission factor is developed from the transfer efficiency for an electrodepositing powder coating process as $1 - 0.95 = 0.05$ pound per pounds of coating. This when converted to pounds per ton yields an emission factor of 100 pounds per ton of coating. A fabric filter control device is used in all of the booths, wet and dry. In permit 1197-024 it was assigned a value of 89.5 percent capture. That value was not changed in this permit. The permit 1197-024 did not apply a limit to chromium compounds used at the site. However, this site has indicated that the paint containing chromium compounds are no longer used.

The PTE of the HAPs, VOC and PM₁₀ used worse case scenario for the paints. The highest usage rate in pound per hour based on weight percent and maximum design rate of the wet paint booth was determined and then projected to 8,760 hours. The following paints were evaluated in this project. K84, f63ex, r7k22, k199, r7k44, p60g2, d61h75, r7k84, f63ex-a3392-4355 and v66v44. Reformulation of paints can alter the potential to emit calculation.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.4 (3/98) and from engineering mass balance calculations. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8,760 hours per year.) The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions*	Existing Actual Emissions 2008	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	3.3	1.18	11.57	N/A
SOx	40.0	0.4	0.02	0.00	N/A
NOx	40.0	4.8	1.18	0.15	N/A
VOC	40.0	<40	4.46	158.78	<40
CO	100.0	N/D	0.17	0.13	N/A
HAPs	10.0/25.0	<10.0/25.0	0.0	146.45	<10.0/25.0
Toluene	10.0	N/D	N/D	45.08	<10.0
Methyl Isobutyl Ketone	10.0	N/D	N/D	65.14	<10.0
Ethylbenzene	10.0	N/D	N/D	1.58	N/A
Xylene	10.0	N/D	N/D	19.68	<10.0
Cumene	10.0	N/D	N/D	13.11	<10.0
2 nitropropane	1.0	N/D	N/D	0.11	N/A
Hexamethylene 1, 6 diisocyanate	0.02	N/D	N/D	1.6	<.02

N/A = Not Applicable; N/D = Not Determined

* Existing Potential Emissions are from 1197-024.-

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 and HAPs are limited to below de minimis levels.

APPLICABLE REQUIREMENTS

Production Castings 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 10-5.160
- *Control of Emissions from Industrial Surface Coating Operations*, 10 CSR 10-5.330

SPECIFIC REQUIREMENTS

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

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.

Tim Hines
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated August 10, 2009, received August 31, 2009, designating Production Castings as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- St. Louis Regional Office Site Survey.

Attachment F
Hazardous Air Pollutant (HAP) Threshold Levels

Chemical	CAS#	Emission Threshold Levels (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
Acetylaminofluorene, [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	Biphenylene, 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
Benzdine	92-87-5	0.0003	4,4'-Biphenyldiamine, P-Diaminodiphenyl, 4,4'-Diaminobiphenyl, Benzdine 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, Toly 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, Biviny, 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 Hexavalent)		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	8007-45-2	0.03	Coal Tar, Coal Tar Pitch, Coal Tar Distillate
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-Dichlorovinyl dimethylphosphate
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 Diisocyanate, 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, Hexamethylphosphoramide
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, Arctivin
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-	58-89-9	0.01	Benzene Hexachloride – Gamma Isomer

Hexachlorocyclohexane]			
Maleic Anhydride	108-31-6	1	2,5-Furandiene, 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
Naphthalene*	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	Nitrobenzoi, Oil of Mirbane, Oil of Bitter Almonds
Nitrobiphenyl, [4-]	92-93-3	1	4-Nitrodiphenyl, P-Nitrobiphenyl, P-Nitrophenyl, PNB
Nitrophenol, [4-]	100-02-7	5	4-Hydroxynitrobenzene, Para-Nitrophenol
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, Hydroxybenzene
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	101020188	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	Titanium Chloride
Toluene*	108-88-3	10	
Toluene Diisocyanate, [2,4-]	584-84-9	0.1	TDI, Tolyene Diisocyanate, 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	

*X'CN where X'H' or any other group where a formal dissociation may occur, for example, KCN or Ca(CN)₂

²Includes mono- and diethers of ethylene glycol, diethylene glycol and triethylene glycol R-(OCH₂CH₂)_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-(OCH₂CH₂)_n-OH. Polymers and ethylene glycol monobutyl ether are excluded from the glycol category.

Mr. Chris Loeffelman
Vice President of Secondary Operations
Production Castings
1410 West Lark Industrial Park
Fenton, MO 63026

RE: New Source Review Permit - Project Number: 2009-07-074

Dear Mr. Loeffelman:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files.

Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance.

The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Tim Hines, at the Departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:thl

Enclosures

c: St. Louis Regional Office
PAMS File: 2009-07-074

Permit Number: