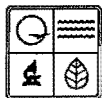


STATE OF MISSOURI

PERMIT BOOK



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: 09 2 0 0 9 - 0 0 6 Project Number: 2009-02-037

Parent Company: MetalTek International

Parent Company Address: 905 East Saint Paul Avenue, Waukesha, WI 53188

Installation Name: Carondelet Corporation

Installation Address: 8600 Commercial Blvd., Pevely, MO 63070

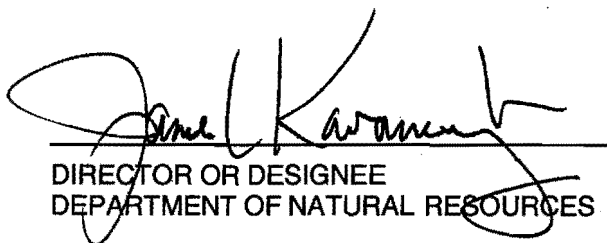
Location Information: Jefferson County, S18, T41N, R6E

Application for Authority to Construct was made for:
The installation of a new Impianti Macchine Fonderia (IMF) molding line that is replacing the large and small Carousel Molding equipment. That will use a Phenolic Urethane Nobake binder. This review was conducted in accordance with Section (6), 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.

SEP 21 2009

EFFECTIVE DATE


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 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 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.

Page No.	3
Permit No.	
Project No.	2009-02-037

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."

Carondelet Corporation
Jefferson County, S18, T41N, R6E

1. **Superseding Condition**
The conditions of this permit supersede special condition 1.a. and 1.c. found in the previously issued construction permit (Permit Number 1096-009) from the Air Pollution Control Program.
2. **Emission Limitation for HAPs**
 - A. Carondelet Corporation shall emit less than ten (10) tons of any single hazardous air pollutant (HAPs), or twenty-five (25) tons combined of HAPs from the installation in any consecutive 12-month period.
 - B. Carondelet Corporation shall emit less than 9.33 tons of Benzene from the installation in any consecutive 12-month
 - C. Carondelet Corporation shall emit less than one hundred (100.0) tons of volatile organic compounds (VOCs) from the installation in any consecutive 12-month period.
 - D. Attachment A, B, C and 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. Carondelet Corporation 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.
 - E. Carondelet Corporation 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.

Page No.	4
Permit No.	
Project No.	2009-02-037

SPECIAL CONDITIONS:

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

3. Use of Alternative Binders in (IMF) molding line
 - A. When considering using an alternative material in the new molding line that is different than a material listed in the Application for Authority to Construct, Carondelet Corporation shall calculate the potential emissions of volatile organic compounds (VOCs) and each individual HAP in the alternative material. The potential emissions shall include the emissions from every piece of equipment that processes the new binder.
 - B. Carondelet Corporation shall seek approval from the Air Pollution Control Program before use of the alternative HAP or VOC material:
 - 1.) If the potential VOC emissions for the alternative material is equal to or greater than 2.75 pounds per hour for a new binder.
 - 2.) If the potential individual HAP emissions for the alternative material are equal to or greater than 0.50 pounds per hour or the Screening Model Action Levels (SMAL), whichever is lower, for any compound listed in Attachment B.
 - C. Attachment D or an equivalent form shall be used to show compliance with Special Condition 3.A. and 3.B. Carondelet Corporation 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.
4. Baghouse and Cyclone Conditions
 - A. Carondelet Corporation shall control emissions from the listed equipment in Table 1 using a cyclone which will be vented to a baghouse as specified in the permit application. The cyclone/baghouse combination shall be operated and maintained in accordance with the manufacturer's specifications. Each baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the DNR employees may easily observe them. Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

Table 1: Equipment for Project 2009-02-037

Emission Point	Description
EP-06B	Sand Conveying
EP-13C	IMF Core Mixing

Page No.	5
Permit No.	
Project No.	2009-02-037

SPECIAL CONDITIONS:

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

- B. Carondelet Corporation shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- C. Carondelet Corporation shall maintain an operating and maintenance log for the cyclones, baghouses, and drum 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.
- 5. Control Measure – Capture Efficiency (88%)
 - A. Process equipment (EP-06B and EP-13C) shall be totally enclosed, sealed with bolt down panels, and maintained under negative pressure through a cyclone (CD-06) and exhausted to the North baghouse (CD-03).
 - B. If any openings or holes should appear on EP-06A and EP-13C due to wear or maintenance activities these openings or holes shall maintain negative pressure.
 - C. Carondelet Corporation shall demonstrate negative pressure at all sand handling processes by using visual indicators such as streamers, talc puff test, negative pressure gauges, flags, etc. at openings that are not closed during normal operations. All openings, when operating, must indicate the presence of negative pressure for compliance.
 - D. Carondelet Corporation shall maintain an operating and maintenance log for the storage equipment and process equipment which shall include the following:
 - 1.) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions.
 - 2.) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
 - 3.) A record of regular inspection schedule, the date and results of all inspections, including any actions or maintenance activities that result from the inspections. Either paper copy or electronic formats are acceptable.

Page No.	6
Permit No.	
Project No.	2009-02-037

SPECIAL CONDITIONS:

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

6. Operational Requirements for the Thermal Reclamation Unit
 - A. Carondelet Corporation shall use this thermal reclamation unit (EP-08A) to remove HAP and VOC content from RCS (Resin Coated Sand) used by Carondelet Corporation.
 - B. Carondelet Corporation shall operate thermal reclamation unit (EP-08A) at a temperature of at least 1,300 degrees Fahrenheit to assure a 95% destruction of HAP and VOC.
 - C. The thermal reclamation unit (EP-08A) shall be equipped with an electronic controller, with digital readout, and data recorder. The electronic controller shall be able to monitor and display the temperature within the thermal reclaim unit to an accuracy of plus or minus two percent (2%). The data recorder shall be able to keep up to 5 years of temperature data and be able to print the stored temperature data.
 - D. The data recorder on the thermal reclamation unit (EP-08A) shall be installed no later than 90 days after this permit is issued

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (6) REVIEW

Project Number: 2009-02-037
Installation ID Number: 099-0111
Permit Number:

Carondelet Corporation
8600 Commercial Blvd.
Pevely, MO 63070

Complete: Complete Data

Parent Company:
MetalTek International
905 East Saint Paul Avenue
Waukesha, WI 53188

Jefferson County, S18, T41N, R6E

REVIEW SUMMARY

- Carondelet Corporation has applied for authority to install a new Impianti Macchine Fonderia (IMF) molding line that is replacing the large and small Carousel Molding equipment.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are Phenol(CAS #108-95-2), Naphthalene (CAS # 91-20-3), Xylene (CAS # 108-38-3), and Diphenylmethane Diisocyanate (MDI) (CAS #101-68-8)
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- The Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart ZZZZZ, *National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources* applies to this installation
- The Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart EEEEE, National Emission Standard for Hazardous Air Pollutants for Iron and Steel Foundries does not apply to the proposed equipment because Carondelet has taken a 10.00/25.00 HAP limit to stay below major levels.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to the proposed equipment.
- A baghouse and cyclone is being used to control the PM₁₀ emissions from of the equipment in this permit.

- This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of VOC are above 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 on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2, Number 19, Secondary Metal Production Plants].
- Ambient air quality modeling was not performed for this review. No model is currently available which can accurately predict ambient ozone concentrations caused by this installation's VOC emissions.
- Emissions testing requirements may be required from the MACT Subpart (ZZZZZ)
- A revised Intermediate Operating Permit is required for this installation within 90 days of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

The Carondelet Corporation is a high alloy steel foundry that relocated from St. Louis City to Pevely, Missouri in 1993. The processes included in the foundry operations include mold and core manufacturing with sand and binders, high alloy steel melting in induction arc furnaces, pouring of the molten steel, shake-out to remove the sand from around the cooled steel parts, sand recycling and reuse, steel finishing including grinding and cleaning. The sand recycling process includes mechanical and magnetic separations, followed by thermal reclamation.

The following permits have been issued to Carondelet Corporation from the Air Pollution Control Program.

Permit Number	Description
1096-009	New Steel Foundry
032002-018	Mold Release, Air Make Up, and Space Heaters

PROJECT DESCRIPTION

Carondelet Corporation is installing a new IMF Molding Line which will be replacing a small and large Carousel Molding Line. The new molding line will produce RCS molds for steel parts. The Maximum Hourly Design Rate (MHDR) of the new molding line is 12 tons of resin coated sand (RCS) per hour. There will be a cyclone and baghouse used to control the PM₁₀ emission from the new molding line. Listed below is all the equipment associated with this project.

Table 2: Equipment for Project 2009-02-037

Emission Point	Description
EP-06B	Sand Conveying
EP-08A	RCS Thermal Reclamation
EP-13C	IMF Core Mixing
EP-13D	IMF Core Mixing
EP-14B	Zip Slip (Mold Removing Agent)
EP-15B	IMF Filling
EP-16B	IMF Core Curing
EP-18B	Mold Core Painting
EP-21B	Metal Pouring
EP-22B	Metal Curing
EP-23B	Mold Cast Shakeout
EP-44B	IMF Core Line Dryer

Carondelet Corporation uses a variety of binders to form their casting molds for metal parts. Each binder contains different HAP and VOC content. Any time a new binder is used all emission must be taken into account and a permit evaluation is required. The binder used for the new IMF line has never previously been permitted and therefore all emissions associated with the new binder beyond the new line must be taken into account. The binder used with the new IMF molding is a Phenolic Urethane Nobake binder. Listed below are the components of the binder and the emission points associated with the binder emissions.

Table 3: Components of the Phenolic Urethane Nobake Binder

Component	Product Name
Part I	Techniset F6063 UNB
Part II	Techniset 6400 UNB
Part III	Techniset Activator 6720

Table 4: Equipment with Emissions from Binder

Emission Point	Description
EP-08A	RCS Thermal Reclamation
EP-13D	IMF Core Mixing
EP-15B	IMF Filling
EP-16B	IMF Core Curing
EP-21B	Metal Pouring
EP-22B	Metal Curing
EP-23B	Mold Cast Shakeout

EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, 12.13 Steel foundries, January 1995. Potential emissions were also calculated by mass balance using Material Data Safety Sheets for the binder as well Industry specific testing data from the American Foundry Society and Ohio Cast Metal Association (OMCA). Potential emissions of the project represent the potential of the new equipment and existing equipment that processes the Phenolic Urethane Nobake binder. Assuming continuous operation (8760 hours per year), the following table provides an emissions summary for this project.

Table 5: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	*Existing Actual Emissions (2008 EIQ)	Potential Emissions of the Application	Project Conditioned Potential
PM ₁₀	15.0	49.99	36.10	6.20	6.00
SO _x	40.0	1.01	0.25	0.00	0.00
NO _x	40.0	50.88	6.48	0.83	0.83
VOC	40.0	99.99	67.10	105.04	<100.0
CO	100.0	163.39	4.14	0.70	0.70
HAPs	10.0/25.0	10.0/25.0	0.00	3.64	3.57

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

* Existing Potential Emissions were retrieved from permit # 032002-018

HAP emissions were calculated using the Form R – Reporting of Binder Chemicals Used in Foundries (Form R). The percent of HAP reacted, released, remaining in mold were taken from this document and applied to our emission calculations. Listed below in Table 6 are the percentages used for the calculations. Percent Reacted is defined as the amount of chemical which reacts during the curing process and no longer exists as this chemical after curing. Percent Released is defined as the amount of chemical, which during the mold/core making process, is released into the environment. Percent remaining in the mold/core is defined as the amount of the chemical, after curing/reacting that remain in its original form in the finished core/mold. Using the percentages found in Form R the HAP emissions released and HAP content reacted were calculated. The remaining HAP were then assumed to be released or destroyed at the Thermal Reclamation Unit (EP-08A), metal pouring (EP-21B), metal curing (EP-22), and mold shake out (EP23B). During metal pouring (EP-21B) the average temperature of the molten metal poured is 2850 degrees Fahrenheit. The minimum temperature for the Thermal Reclamation Unit (EP-08A) is 1300 degrees Fahrenheit. The manufacturer of the Thermal Reclamation Unit, Richards Engineering Ltd, confirmed via email that at 1300 degrees Fahrenheit a 95% destruction rate of HAPs is an accurate control efficiency to use. With a confirmed HAP destruction rate of 95% at 1300 degrees and with the average temperature of the poured molten metal ranging from 2600 to 2950 degrees Fahrenheit it was assumed that the same 95% destruction rate would occur during the metal pouring (EP-21B), metal curing (EP-22), and mold shake out (EP23B).

Table 6: Distribution of HAP

Part 1 HAP	% Reacted	% Released	*% Remaining in Mold/Core
Phenol	98	0	2
Naphthalene	0	5.85	94.15
Xylene	0	5.85	94.15
Part 2 HAP	% Reacted	% Released	*% Remaining in Mold/Core
Polymeric (MDI)	99.99	0	0.01
Naphthalene	0	5.85	94.15
Xylene	0	5.85	94.15
Part 3 HAP	% Reacted	% Released	*% Remaining in Mold/Core
Naphthalene	0	5.85	94.15

When calculating the VOC emissions, 100% of the Phenolic Urethane Nobake binder within the molds was considered VOC. Because all the HAP within the binder is also VOC it was assumed that the VOC would react as Form R predicts. When calculating the emissions of VOC from the molding process we used OMCA test data. The OMCA test was ran May fifth in the year 2008. During the OMCA test a volume of sand was weighed prior to any binder being added. The binder was then added to the sand and mixed formed into a mold. The mold was then weighed again and then left to cure. During the curing of the mold a weight measurement was taken every six minutes for a twelve hour time period. The amount of weight lost during that twelve hour time period was considered the VOC released during the mold/core making process. An emission factor for VOC was then calculated by taking the weight lost during the curing divided by the total weight of sand used.

The VOC not released during the mold/core making process was then assumed to released or destroyed. The Thermal Sand Reclamation Unit uses three zones to step the temperature up to the minimum of 1300 degrees Fahrenheit to ensure HAP and VOC destruction. Carondelet assumed a 95 % destruction rate for their reclaim unit. This control efficiency was confirmed in an email received by Richards Engineering Ltd, a distributor of Thermal Sand Reclaim Units, in England. Using the 95 % destruction rate and MHDR of 5 tons of RCS per hour of the Thermal Reclamation Unit the total VOC amount destroyed and released at EP-08A was calculated. Any resin coated sand not ran through the Thermal Sand Reclamation Unit cannot claim the 95% destruction rate of VOC.

The remaining VOC not released or destroyed at either the mold/core making process or EP-08A was then calculated and accounted for at metal pouring (EP-21B), casting

(EP-22), and mold shake out (EP23B). The average temperature of the molten metal poured ranges from 2600 to 2950 degrees Fahrenheit. At such a high temperature it was assumed that a 95% destruction rate of the VOCs could be attained during the metal pouring (EP-21B), casting (EP-22), and mold shake out (EP23B)

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of VOC are above de minimis levels.

APPLICABLE REQUIREMENTS

Carondelet Corporation 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. For a complete list of applicable requirements for your installation, please consult your operating permit.

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.
- *Operating Permits*, 10 CSR 10-6.065
- *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
- *Maximum Achievable Control Technology (MACT) Regulations*, 10 CSR 10-6.075, *National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources*, 40 CFR Part 63, Subpart ZZZZZ

- *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 (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Gerad Fox
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated February 13, 2009, received February 17, 2009, designating MetalTek International 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,
- Form R – Reporting of Binder Chemicals Used in Foundries, Fourth Edition, by American Foundry Society and Casting Industry Suppliers Association.
- Ohio Metal Casting Association VOC Test, May 2, 2008
- Email regarding thermal sand reclamation units sent by Ian Bailey of Richards Engineering Ltd. Received June 23, 2009

Attachment B – Aggregate HAPs Compliance Worksheet

Carondelet Corporation
 Jefferson County, S18, T41N, R6E
 Installation ID Number: 099-0111

Project Number: 2009-02-037

Permit Number: _____

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

Column A	Column B (a)
Individual HAP Emitted	Individual HAP Emission Rates (tons)
Benzene	
Triethylamine	
Naphthalene	
Methanol	
Phenol	
Xylene	
Diphenylmethane Diisocyanate (MDI)	
Total Monthly Aggregate HAP Emissions	(b)

Instructions

- (a) Monthly individual HAP emissions calculated from approved worksheets and Attachment A
- (b) Summation of Column A

Attachment C – Aggregate HAPs Compliance Worksheet

Carondelet Corporation
 Jefferson County, S18, T41N, R6E
 Installation ID Number: 099-0111

Project Number: 2009-02-037

Permit Number: _____

This sheet covers the period from _____ to _____.
(month, year) (month, year)

Column A	Column B
(a) 12-Month Period	(b) Monthly Aggregate HAP Emissions
Month 1: Beginning Month from Above	
Month 2:	
Month 3:	
Month 4:	
Month 5:	
Month 6:	
Month 7:	
Month 8:	
Month 9:	
Month 10:	
Month 11:	
Month 12: Ending Month from Above	
Total Consecutive 12-Month Combined HAP Emissions (ton)	(c)

Instructions

- (a) Fill in corresponding month name next to month number
- (b) Monthly aggregate HAP emissions calculated from Attachment B
- (c) Summation of Column B, not to exceed 25.0 tons

Attachment D – Individual HAPs Compliance Worksheet

Carondelet Corporation
 Jefferson County, S18, T41N, R6E
 Installation ID Number: 099-0111

Project Number: 2009-02-037

Individual HAP: (a) _____

Permit Number: _____

This sheet covers the period from _____ to _____.
(month, year) (month, year)

Column A	Column B
(b) 12-Month Period	(c) Monthly Aggregate HAP Emissions
Month 1: Beginning Month from Above	
Month 2:	
Month 3:	
Month 4:	
Month 5:	
Month 6:	
Month 7:	
Month 8:	
Month 9:	
Month 10:	
Month 11:	
Month 12: Ending Month from Above	
Total Consecutive 12-Month Combined HAP Emissions (ton)	(d)

Instructions

- (a) Fill in individual HAP name
- (b) Fill in corresponding month name next to month number
- (c) Monthly individual HAP emissions calculated from Attachment B
- (d) Summation of Column B, not to exceed 10.0 tons

**Attachment E
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
Acetylamino-fluorine, [2-]	53-96-3	0.005	N-2-Fluorenyl Acetamide, N-Fluorenyl 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
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	
Benzoic Trichloride	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, Bivinyll, 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	20-09-7	5	Cyanide (Barium, Chlorine, Free, Hydrogen, Potassium, Silver, Sodium, Zinc)

listed) ¹			
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
Dichlorobenzidine, [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, Arctuin
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-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
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	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-Oxetanone, 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, Chinoline, Leucoline
Quinone	016-51-4	5	Benzoquinone, Chinone, P-Benzoquinone, 1,4-Benzoquinone
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	
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¹X'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 aryl 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. William Yates
Plant Engineering Manager
Carondelet Corporation
8600 Commercial Blvd.
Pevely, MO 6070

RE: New Source Review Permit - Project Number: 2009-02-037

Dear Mr. Yates:

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 Gerad Fox, 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:gfl

Enclosures

c: St. Louis Regional Office
PAMS File: 2009-02-037

Permit Number: