



Thomas M. McDermott, Jr.
Mayor

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

CITY OF HAMMOND

RONALD L. NOVAK
Director

October 23, 2006

CERTIFIED MAIL # 3627 4966

Ray Sparks
Plant Manager
Calumet Abrasives Co., Inc.
3039 169th Place
Hammond, Indiana 46323

Re: Notice Only Change (NOC 089-22629-00297) for
Revised Registered Operation Status, 089-17113-
00297

Dear Mr. Sparks:

The application from Calumet Abrasives Co., Inc. received on January 13, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5 it has been determined that the following Bonded Abrasives Manufacturing Process, to be located at 3039 169th Place, Hammond, Indiana, is classified as registered:

- (a) Two (2) Hobart Mixers with a fume hood, no controls;
(for mixing of abrasives with liquid resin at a rate of 84 lbs/hr, 0.042 T/hr);
- (b) Three (3) Gilson Rotary Mixers with a Dust Collector;
(where powder resin is mixed with wetted abrasive grain at a rate of 72 lbs/hr, 0.036 T/hr);
- (c) Two (2) Screen Tables (for screening mixed material);
- (d) Eleven (11) presses where the mix is distributed for molding at a rate of 78.47 lbs of wheels/hr, 0.039 T/hr;
- (e) Seven (7) natural gas-fired Curing Ovens (3.5 MMBtu/hr total) for 36 hour batch curing time.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

- (2) Pursuant to Hammond Air Quality Control Ordinance #3522 (as amended), the source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of source classification.
- (3) Pursuant to 326 IAC 6-3-2, the particulate from the Mixing and Molding processes shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The limitation based on this rule is 0.97 pounds per hour. Pursuant to Hammond Air Quality Control Ordinance #3522 (as amended), the processes will be limited to the potentials after controls, 0.855 pounds per hour. The control devices shall be in operation at all times to meet the requirements.

This registration is a revised registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality and the Hammond Department of Environmental Management that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Hammond Department of Environmental Management
Air Pollution Control Division
Room 304
5925 Calumet Avenue
Hammond, Indiana 46320

and

Indiana Department of Environmental Management
Compliance Data Section
Office of Air Quality
100 North Senate Avenue
Indianapolis, IN 46204

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 and the Hammond Air Quality Control Ordinance 3522 (as amended), if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by:
Ronald Novak, Director
Hammond Department of Environmental Management

KM

cc: Permit Administrator – Mindy Hahn

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

Company Name: Calumet Abrasives Co., Inc.
Address: 3039 - 169 th Place
City: Hammond
Authorized Individual: John Anderson
Phone #: 219-844-2695
Registration #: 089-17113-00297

I hereby certify that Calumet Abrasives Co., Inc. is still in operation and is in compliance with the requirements of Registration 089-17113-00297.

Name (typed): John Anderson
Title: President
Signature:
Date:

Bonded
 Abrasives
 Mfg
 Process

PLANT ID NO: N/A
 INSP DATE: N/A
 CALC DATE: 1/31/06

CALCULATIONS BY: Kristina Massey

YEAR OF DATA: **REVIEW MODIFICATION**

NO. OF POINTS: 4

EF: EMISSION FACTOR
 CE: CONTROL EFFICIENCY

MDR: MAXIMUM DESIGN RATE
 MDC: MAXIMUM DESIGN CAPACITY

Ts: STACK DISCHARGE TEMPERATURE
 UNITS FOR EMISSIONS ARE IN (TPY) EXCEPT WHERE GIVEN

POINT ID: **Mix Step 1**
 Abrasives + Liquid Resin

MDR (T/hr): 0.046
 YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): (1': 20')
 FLOWRATE (ACFM): 1000
 Ts(°F): 70

CNTRL DEV: fume hood
 no control

PERMITTED OPERATING HRS: **8760** hr/yr

SCC#	3-05-036-01	(AP42)	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
POLLUTANT	EF(LB/T)	CE (%)										
PM	20	0	0.9200	22.0800	4.0296	0.9200	4.0296	N/A	0.9200	4.0296	0.0000	0.0000
PM10	17	0	0.7820	18.7680	3.4252	0.7820	3.4252	N/A	0.7820	3.4252	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

* This point has potential emissions below the State's registration thresholds.

Hammond Air Quality Control Ordinance 3522 (as amended)

POINT ID: **Mix Step 2**
 Powder Resin + Wetted Abrasives

MDR (T/hr): 0.053
 YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): no outside stack
 FLOWRATE (ACFM): 6000
 Ts(°F): 70

CNTRL DEV: Torit Dust Collector

PERMITTED OPERATING HRS: **8760** hr/yr

SCC#	3-05-036-01	(AP42)	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
POLLUTANT	EF(LB/T)	CE (%)										
PM	20	0.99	1.0600	25.4400	4.6428	0.0106	0.0464	N/A	0.0106	0.0464	0.0000	0.0000
PM10	17	0.99	0.9010	21.6240	3.9464	0.0090	0.0395	N/A	0.0090	0.0395	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

* This point has potential emissions below the State's registration thresholds.

Hammond Air Quality Control Ordinance 3522 (as amended)

Emission Factors from 3-01-014-02, Paint Manufacture - Pigment Handling.

POINT ID: Mix Distributed to Presses for Molding

MDR (T/hr): 0.068
 YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): no outside stack
 FLOWRATE (ACFM): 6000
 Ts(°F): 70

CNTRL DEV: Torit Dust Collector

PERMITTED OPERATING HRS: **8760** hr/yr

SCC#	3-05-036-02	(AP42)	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
POLLUTANT	EF(LB/T)	CE (%)										
PM	20	0.99	1.3500	32.4000	5.9130	0.0135	0.0591	N/A	0.0135	0.0591	0.0000	0.0000
PM10	17	0.99	1.1475	27.5400	5.0261	0.0115	0.0503	N/A	0.0115	0.0503	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

* This point has potential emissions below the State's registration thresholds.

Hammond Air Quality Control Ordinance 3522 (as amended)

POINT ID: Five (5) Curing Ovens Natural Gas Fired

MDC (MMBtu/hr): 2
 MDR (MMcft/hr): 0.0020

HEAT CONTENT (Btu/cft): 1000
 QTY BURNED (MMcft/yr): 0.00

STACK ID (DIAM:HEIGHT): (1.25': 20')
 FLOWRATE (ACFM): 2736
 Ts(°F): 365

CNTRL DEV: NONE

PERMITTED OPERATING HRS: **8760** hr/yr

SCC#	3-05-036-05	CE (%)	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
POLLUTANT	EF(lbs/mmcft)											
PM	7.6	0	0.0152	0.3648	0.0666	0.0152	0.0666	N/A	0.0152	0.0666	0.0000	0.0000
PM10	7.6	0	0.0152	0.3648	0.0666	0.0152	0.0666	N/A	0.0152	0.0666	0.0000	0.0000
SOx	0.6	0	0.0012	0.0288	0.0053	0.0012	0.0053	N/A	0.0012	0.0053	0.0000	0.0000
NOx	100	0	0.2000	4.8000	0.8760	0.2000	0.8760	N/A	0.2000	0.8760	0.0000	0.0000
VOC	5.5	0	0.0110	0.2640	0.0482	0.0110	0.0482	N/A	0.0110	0.0482	0.0000	0.0000
CO	84	0	0.1680	4.0320	0.7358	0.1680	0.7358	N/A	0.1680	0.7358	0.0000	0.0000
LEAD	0.0005	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000	0.0000	0.0000

* This point has potential emissions below the State's registration thresholds.

Hammond Air Quality Control Ordinance 3522 (as amended)

POINT ID: **VOC from Curing ovens**

MDR (T/hr): 0.051
 YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): no outside stack
 FLOWRATE (ACFM): 6000
 Ts(°F): 70

CNTRL DEV:

PERMITTED OPERATING HRS: **8760** hr/yr

SCC#	3-05-036-02	(AP42)	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
POLLUTANT	EF(LB/T)	CE (%)										
PM	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000	0.0000	0.0000
PM10	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	18.15	0	0.9192	22.0618	4.0263	0.9192	4.0263	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
Phenols	9.62	0	0.4872	11.6928	2.1339	0.4872	2.1339	N/A	0	0.0000	0.0000	0.0000
Fomaldehyde	0.18	0	0.0092	0.2206	0.0403	0.0092	0.0403	N/A	0	0.0000	0.0000	0.0000

* This point has potential emissions below the State's registration thresholds.

Hammond Air Quality Control Ordinance 3522 (as amended)

MDR based on 3850 pounds per 7 ovens for a 38 hour batch
 EF based on testing information 5/7/06 - 35.53 lbs VOC lost from 3916 lbs product
 Phenol is 53% of VOC emissions

NEW UNIT

POINT ID: **#6 & #7 Curing Oven
 Natural Gas Fired**

MDC (MMBtu/hr): 3.5
 MDR (MMcft/hr): 0.0035

HEAT CONTENT (Btu/cft): 1000
 QTY BURNED (MMcft/yr): 0.00

STACK ID (DIAM:HEIGHT): (0.67': 15')
 FLOWRATE (ACFM): 5250
 Ts(°F): 365

CNTRL DEV: NONE

PERMITTED OPERATING HRS: **8760** hr/yr

SCC#	3-05-036-05	CE (%)	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
POLLUTANT	EF(lbs/mmcf)											
PM	7.6	0	0.0266	0.6384	0.1165	0.0266	0.1165	N/A	0.0266	0.1165	0.0000	0.0000
PM10	7.6	0	0.0266	0.6384	0.1165	0.0266	0.1165	N/A	0.0266	0.1165	0.0000	0.0000
SOx	0.6	0	0.0021	0.0504	0.0092	0.0021	0.0092	N/A	0.0021	0.0092	0.0000	0.0000
NOx	100	0	0.3500	8.4000	1.5330	0.3500	1.5330	N/A	0.3500	1.5330	0.0000	0.0000
VOC	5.5	0	0.0193	0.4620	0.0843	0.0193	0.0843	N/A	0.0193	0.0843	0.0000	0.0000
CO	84	0	0.2940	7.0560	1.2877	0.2940	1.2877	N/A	0.2940	1.2877	0.0000	0.0000
LEAD	0.0005	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000	0.0000	0.0000

* This point has potential emissions below the State's registration thresholds.

Hammond Air Quality Control Ordinance 3522 (as amended)

POINT ID: **VOC from Curing ovens**

MDR (T/hr): 0.045
 YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): no outside stack
 FLOWRATE (ACFM): 6000
 Ts(°F): 70

CNTRL DEV:

PERMITTED OPERATING HRS: **8760** hr/yr

SCC#	3-05-036-02	(AP42)	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000	0.0000	0.0000
PM10	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	18.15	0	0.8118	19.4831	3.5557	0.8118	3.5557	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
Phenols	9.62	0	0.4303	10.3261	1.8845	0.4303	1.8845	N/A	0	0.0000	0.0000	0.0000
Formaldehyde	0.18	0	0.0081	0.1948	0.0356	0.0081	0.0356	N/A	0	0.0000	0.0000	0.0000

* This point has potential emissions below the State's registration thresholds.

Hammond Air Quality Control Ordinance 3522 (as amended)

MDR based on 3400 pounds per 7 ovens for a 38 hour batch
 EF based on testing information 5/7/06 - 35.53 lbs VOC lost from 3916 lbs product
 Phenol is 53% of VOC emissions

Plant/Process Totals

Pollutant	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)	BEFORE CONTROLS	AFTER CONTROLS
	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)				
PM	3.372	80.923	14.768	0.986	4.318	#VALUE!	0.986	4.318	0.000	0.000
PM10	2.872	68.935	12.581	0.844	3.698	#VALUE!	0.844	3.698	0.000	0.000
SOx	0.003	0.079	0.014	0.003	0.014	#VALUE!	0.003	0.014	0.000	0.000
NOx	0.550	13.200	2.409	0.550	2.409	#VALUE!	0.550	2.409	0.000	0.000
VOC	0.030	0.726	7.714	0.030	7.714	#VALUE!	0.030	0.132	0.000	0.000
CO	0.462	11.088	2.024	0.462	2.024	#VALUE!	0.462	2.024	0.000	0.000
Phenol	0.917	22.019	4.018	0.917	4.018	#VALUE!	0.000	0.000	0.000	0.000
Formaldehyde	0.025	0.610	0.111	0.025	0.111	#VALUE!	0.000	0.000	0.000	0.000

Hammond Air Quality Control Ordinance 3522 (as amended)

* This source is classed "Registered" according to potential emissions



Thomas M. McDermott, Jr.
Mayor

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

CITY OF HAMMOND

RONALD L. NOVAK
Director

October 23, 2006

Certified Mail # 3627 4966

Mr. Ray Sparks
Plant Manager
Calumet Abrasives Co., Inc.
3039 169th Place
Hammond, Indiana 46323

Re: NOC **089-22629-002967**
Notice-only change to
R089-17113-00297

Dear Mr. Sparks:

Calumet Abrasives Co., Inc. was issued a Registration on March 10, 2003 and a local operation permit on February 15, 2006 for operation of a Bonded Abrasives Manufacturing Process used to make grinding wheels. An application for a construction permit was received on January 27, 2006 for the addition of two (2) 1.75 MMBtu/hr, natural gas burning, curing ovens. Pursuant to the provisions of 326 IAC 2-5.5-6 the registration is hereby revised as follows (~~strikeout~~ added to show what was deleted and **bold** added to show what was added):

1. On page 1 of 3 of the Registration, the following unit descriptions have been changed to add in the new oven and several unpermitted units.

Two (2) Hobart Mixers with a fume hood ~~to an outside stack~~, no controls;
(for mixing of abrasives with liquid resin at a rate of ~~84~~ **92** lbs/hr, ~~0.042~~ **0.046** T/hr);

~~Two (2)~~ **Three (3)** Gilson Rotary Mixers with a ~~Fort~~ Dust Collector;
(where powder resin is mixed with wetted abrasive grain at a rate of ~~72~~ **106** lbs/hr, ~~0.036~~ **0.053** T/hr);

~~One (1)~~ **Two (2)** Screen Tables (for screening mixed material) ~~with a hood ducted to the same Tort DG;~~

~~Eight (8)~~ **Eleven (11)** presses where the mix is distributed for molding at a rate of ~~78.47~~ **135** lbs of wheels/hr, ~~0.039~~ **.0675** T/hr;
(~~there is another hood in this area ducted to the same Tort DG;~~

~~Five (5)~~ **Seven (7)** natural gas-fired Curing Ovens (~~2.0~~ **3.5** MMBtu/hr total) for 36 hour batch curing time.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this letter to the front of the original registration.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact our Department at (219) 853-6306.

Sincerely,

Kristina Massey, Engineer
Hammond Department of Environmental Management

cc: Mindy Hahn, Permits Administration, IDEM, OAQ

**Indiana Department of Environmental Management
Office of Air Quality
and
Hammond Department of Environmental Management
Air Pollution Control Division**

Technical Support Document (TSD) for a Registration Notice Only Change

Source Background and Description

Source Name:	Calumet Abrasives Co., Inc.
Source Location:	3039 169 th Place, Hammond, Indiana 46323
County:	Lake
SIC Code:	3541 – Machine tools, metal cutting equipment
Operation Permit No.:	R089-17113-00297
Notice Only Change No.:	089-22629-00297
Permit Reviewer:	Kristina Massey

The Hammond Department of Environmental Management (HDEM) has received a construction permit application from Calumet Abrasives Co., Inc. for the addition of two (2) curing ovens rated at 1.75 MMBtu/hr heat input, each and a combined capacity of 72,000 grinding wheels per 36 hour batch to the Bonded Abrasives Manufacturing Process.

During the review process it was determined that one of the permitted components was missing from the original calculations. The component was a liquid phenol resin; the powder resin was the only one originally accounted. Because of the nature of the product (phenolic resin grind wheels) a percentage of the phenol resins remain in the product. Since this amount was not known, the source hired a contractor, GSA, Inc., to perform preliminary tests to determine how much of the phenol resin remains in the product and how much emissions are emitted. The testing was done during the week of May 7, 2006 and the results were received, by HDEM, on June 19, 2006. The test report was reviewed and sent to IDEM for final approval. The results were accepted by IDEM on July 14, 2006. The results of the stack test were used to calculate the phenol emissions from the process. The status of the source did not change from a registered source because of the results.

New Emission Units

Two (2) natural gas-fired curing ovens each rated at 1.75 MMBtu/hr heat input for 36-hour batch curing time.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- Two (2) Hobart Mixers with a fume hood, no controls;
(for mixing of abrasives with liquid resin at a rate of 84 lbs/hr, 0.042 T/hr);
- Two (2) Gilson Rotary Mixers with a Dust Collector;
(where powder resin is mixed with wetted abrasive grain at a rate of 72 lbs/hr, 0.036 T/hr);
- One (1) Screen Table, for screening mixed material;
- Eight (8) presses where the mix is distributed for molding at a rate of 78.47 lbs of wheels/hr, 0.039 T/hr;

Five (5) natural gas-fired Curing Ovens (2.0 MMBtu/hr total) with a maximum capacity of 86,000 wheels in a 36 hour batch curing time.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission units and pollution control devices:

One (1) Hobart Mixer with a fume hood, no controls;

One (1) Screen Table for screening mixed material;

Three (3) presses where the mix is distributed for molding

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

OP 02645, issued on February 15, 2006 and
Registration 089-17113-00297 revised on March 24, 2005

All conditions from previous approvals were incorporated into this permit.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
#6 Oven	Curing Oven	15	0.83	250	365
#7 Oven	Curing Oven	15	0.83	250	365

Enforcement Issue

A Violation Letter will be issued to the source for construction and operation without a permit.

Recommendation

The staff recommends to the Director that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on January 27, 2006, with additional information received on June 19, 2006, July 14, 2006 and September 19, 2006.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (four (4) pages).

Potential To Emit (New & Unpermitted Units)

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	4.72
PM-10	4.03
SO ₂	0.01
VOC	3.64
CO	1.29
NO _x	1.53

HAP's	Potential To Emit (tons/year)
Phenol	1.88
Formaldehyde	0.04
TOTAL	1.92

- (a) The potential to emit of the modification has single HAP emissions (phenol) greater than one (1) ton per year but less than ten (10) tons per year, therefore pursuant to 326 IAC 2-5.5-6(d)(10) a Notice-Only Change is required. The source will be issued a local operation permit pursuant to Hammond Air Quality Control Ordinance #3522, as amended.

Source Potential to Emit (Entire Source)

Pollutant	Potential To Emit (tons/year)
PM	14.77
PM-10	12.58
SO ₂	0.01
VOC	7.71
CO	2.02
NO _x	2.41

HAP's	Potential To Emit (tons/year)
Phenol	4.02
Formaldehyde	0.11
TOTAL	4.13

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM-10 is greater than five (5) tons per year and less than twenty-five (25) tons per year, therefore the source, after the modification, is still subject to the provisions of 326 IAC 2-5.5 – Registration.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2005 HDEM emission information.

Pollutant	Actual Emissions (tons/year)
PM	1.82
PM10	1.55
SO ₂	0.001
VOC	2.06
CO	0.11
NO _x	0.14
HAP (total)	1.09

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM10	Attainment
PM2.5	Nonattainment
SO ₂	Attainment
NO ₂	Attainment
8- hour Ozone	Moderate Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM10 emissions as a surrogate for PM2.5 emissions pursuant to the requirements of Emission Offset, 326 IAC 2-3.
- (c) Lake County has been classified as attainment or unclassifiable for PM10, NO₂, SO₂, CO and Pb. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Source Status

Existing Source (**emissions after controls**, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	4.32
PM10	3.70
SO ₂	0.01
VOC	7.71
CO	2.02
NO _x	2.41

HAP's	Emissions (tons/year)
Phenol	4.02
Formaldehyde	0.11
TOTAL	4.13

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) This existing source is not a major stationary source under Emission Offset (326 IAC 2-3) because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.
- (c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the Hammond Department of Environmental Management (HDEM).

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Lake County and the potential to emit VOC and NO_x is less than ten (10) tons per year. The source is not one of the twenty-eight (28) listed sources and its potential to emit PM10 is less than one-hundred (100) tons per year including fugitive emissions, therefore, 326 IAC 2-6 does not apply.

Pursuant to Hammond Air Quality Control Ordinance #3522 (as amended), the source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of source classification.

326 IAC 6-2-4 (Particulate Emissions Limitations)

The source is not subject to this rule, since the ovens do not meet the definition of indirect heating.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

Conclusion

The #6 and #7 Curing Ovens and the previously unpermitted units for the Bonded Abrasives Manufacturing Process shall be subject to the conditions of the revised Registration and the Local Construction and Operation Permits.