April 5, 2007

Mr. Rich Elliott
Premier Bandag #4
9302 East 30th Street
Indianapolis, IN 46229

CERTIFIED MAIL 7000 0600 0023 5190 2852

Re: Registration 097-21559-00510

Dear Mr. Elliott:

The application from Premier Bandag #4, received on July 7, 2005, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following tire retreading facility, located at 9302 East 30th Street, Indianapolis, Indiana, is classified as registered:

(a) Tire Buffing operation, consisting of one (1) automatic and one (1) manual buffing units, each using a water cooling system, installed in 2000, with a total maximum capacity of twenty-five (25) tires per hour, and one (1) trailer/filter system as control, exhausting to the atmosphere.

(b) Steel Shot Blasting operation, installed in 2002, with a maximum capacity of ten (10) rims per hour, using steel shot abrasive, using dry filters for control, and exhausting to the atmosphere.

(c) Powder Coating operation, installed in 2000, with a maximum capacity of six (6) rims per hour, using dry filters for control, and exhausting to the atmosphere.

(d) Adhesive Spray Coating (gluing) operation, installed in 1989, using Bandag Universal Cement, with a maximum usage of 0.63 gallons per hour, using no control, and exhausting to the atmosphere.

(e) Five (5) curing chambers, all installed in 2000, with a combined maximum capacity of 24.5 tires per hour, using no control and exhausting to the atmosphere.

The following conditions shall be applicable:

(a) 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:

(1) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) 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.

(b) Pursuant to 326 IAC 6-3-2(e), the allowable particulate emission rates shall be the following:

(3) allowable particulate emission rates from the Tire Buffing operation shall not exceed 3.926 pounds per hour when operating at a process weight rate of 0.938 tons per hour. The water cooling system/fan/trailer/filter system shall be in operation at all times when the buffing operation is in operation, in order to comply with this limit;

(4) allowable particulate emission rate from the Powder Coating operation shall not exceed 3.545 pounds per hour when operating at a process weight rate of 0.675 tons per hour. The dry filters shall be in operation at all times when the Powder Coating operation is in operation, in order to comply with this limit.

(5) The pounds per hour PM limits for Tire Buffing, Powder Coating, Adhesive spray coating (gluing), and Steel Shot Blasting operations were calculated using the following equation.

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

$E = 4.10P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

(6) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emission rate from the Adhesive spray coating (gluing) and Steel Shot Blasting operations shall not exceed 0.551 pounds per hour when operating at a process weight less than 100 lb/hr.

(c) Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), the Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right of way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

(d) Pursuant to the Code of Indianapolis and Marion County, Chapter 511, this registration will be subject to annual operating fees.

This is a Registration issued to this source, pursuant to 326 IAC 2-5.5. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Indiana Department of Environmental Management (IDEM) Office of Air Quality (OAQ) and the City of Indianapolis Office of Environmental Services (OES) 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:

Compliance Data Section
Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204-2251

and

Indianapolis Office of Environmental Services
Air Compliance
2700 S. Belmont Avenue
Indianapolis, IN 46221

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 to OAQ and OES if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Felicia A. Robinson
Administrator

BG

cc: File
Air Compliance B Matt Mosier
Enforcement
IDEM, OAQ B Mindy Hahn
Marion County Health Department

Registration
Annual Notification

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

Premier Bandag #4
9302 East 30th Street
Indianapolis, IN 46229
Authorized individual: Rich Elliott
Phone #: (317) 895-6166
Registration #: 097-21559-00510

I hereby certify that Premier Bandag #4 is still in operation and is in compliance with the requirements of Registration 097-21559-00510.

Name (typed):
Title:
Signature:
Date:

TO: Interested Parties / Applicant

RE: Premier Bandag #4 / 097-21559-00510

FROM: Felicia A. Robinson
Administrator
City of Indianapolis
Office of Environmental Services

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Indianapolis Office of Environmental Services, Air Permits at (317) 327-2234.

Enclosures

Department of Public Works
Office of Environmental Services
2700 Belmont Avenue
Indianapolis, IN 46221
317-327-2234
Fax 327-2274
TDD 327-5186
indygov.org/dpw

Appendix A: Emissions Calculations
PM Emissions

Company Name: **Premier Bandag #4**
Address City IN Zip: **9302 East 30th Street, Suite A, Indianapolis, Indiana 46229**
Permit No.: **097-21559-00510**
Reviewer: **Boris Gorlin**

Tire Buffing Emissions

Stack Test (05/12/2006) Results:

PM/PM10 Emission after control (based on 5/12/2006 Stack Test results):	0.0305	lb/hr
or (at 8,760 hr/yr):	**0.13359**	**ton/yr**

Water cooling system / Trailer control **efficiency** (conservative estimate): 99%
PM/PM10 Emission before control = PM/PM10 Emission after control / (1- control efficiency):

PM/PM10 Emission before control:	3.05	lb/hr
	13.359	**ton/yr**

24.26	tires buffed/hr	15.41	lb of rubber buffed per tire	379.1 lb/hr buffed

PM/PM10 Emission Rate: 8.04567E-05 lb/lb rubber buffed

Gluing Operations

	Amount of Glue Used (gal/hr)	Density of Glue (lbs/gal)	Percent solids by weight	PM/PM10 emissions (ton/yr)	PM/PM10 emissions (lb/hr)
Potential	0.6	5.81	13.3%	**2.03**	**0.464**

PM/PM10 emissions (ton/yr) = glue used (gal/hr) * glue density (lbs/gal) * % solids by weight * 8,760 hr/yr * / 2,000 lb/ton
* 8760 hrs / yr * 1 ton / 2000 lbs

Powder Coating

Wheels Coated per day	lbs coating used per wheel	Transfer efficiency (electrostatic spray)	PM emissions (tons/ year)	Dry filter control efficiency	PM/PM10 emissions (tons/ year) after controls	PM/PM10 emissions (lb/hr) after controls
144	1	90%	**2.63**	99%	**0.0263**	0.006

PM emissions (tons / yr) = wheels coated / day x lbs coating / wheel x (1 - transfer efficiency)
PM emissions after control (tons / yr) = PM emissions before control x (1-control efficiency)

Transfer Efficiency - from Air Pollution Engineering Manual, 2nd Edition; Table 10, page 366 (for the purpose of this permit emission calculation, 98% level is conservatively reduced to 90%)

326 IAC 6-3-2(e)		
$E = 4.10 \times P^{0.67}$		
Tire Buffing		
Weight of one tire:	75	lb
Process Weight:	1,820	lb/hr
or:	0.910	ton/hr
Emission Limit (E):	**3.848**	**lb/hr of PM**
Powder Coating		
Weight of one rim:	75	lb
Process Weight:	1,350	lb/hr
or:	0.675	ton/hr
Emission Limit (E):	**3.545**	**lb/hr of PM**

Appendix A: Emission Calculations
VOC and HAP Emissions
from Tire Buffing Operations

Company Name:	**Premier Bandag #4**
Address City IN Zip:	**9302 East 30th Street, Suite A, Indianapolis, Indiana 46229**
Permit No.:	**097-21559-00510**
Reviewer:	**Boris Gorlin**
Maximum Amount of Tires Processed (tires/hr)	25
Tires Buffed for Retreading (tires/yr):	219,000
Amount of rubber ground off per tire (lbs/tire ground):	15.41
Maximum Rate of Rubber Ground Off (lbs/hr):	385

Pollutants	*Emission Factor (lb/lb rubber ground off)	Potential to Emit (lb/hr)	Potential to Emit (tons/yr)
Total HAPs	1.27E-04	4.87E-02	**2.13E-01**
HAPs			
Dibenzofuran	1.59E-07	6.13E-05	2.68E-04
Methylene Chloride[1]	2.46E-07	9.48E-05	4.15E-04
1,1,1-Trichloroethane (Methyl Chloroform)	3.58E-07	1.38E-04	6.04E-04
2-Butanone	5.15E-07	1.98E-04	8.69E-04
Naphthalene	5.81E-07	2.24E-04	9.80E-04
Acetophenone	7.13E-07	2.75E-04	1.20E-03
Cadmium (Cd) Compounds	8.58E-07	3.31E-04	1.45E-03
Chromium (Cr) Compounds	1.44E-06	5.55E-04	2.43E-03
Phenol	1.66E-06	6.40E-04	2.80E-03
Acrolein	1.68E-06	6.47E-04	2.83E-03
Trichloroethylene	1.95E-06	7.51E-04	3.29E-03
Lead (Pb) Compounds	2.02E-06	7.78E-04	3.41E-03
Nickel (Ni) Compounds	2.03E-06	7.82E-04	3.43E-03
m-Xylene + p-Xylene	2.23E-06	8.59E-04	3.76E-03
Di-n-butylphthalate	2.24E-06	8.63E-04	3.78E-03
o-Toluidine	2.55E-06	9.82E-04	4.30E-03
Carbon Disulfide	2.58E-06	9.94E-04	4.35E-03
Benzene	4.13E-06	1.59E-03	6.97E-03
Toluene[1]	6.27E-06	2.42E-03	1.06E-02
bis(2-Ethylhexyl)Phthalate	7.94E-06	3.06E-03	1.34E-02
Carbonyl Sulfide	8.70E-06	3.35E-03	1.47E-02
Isooctane	1.09E-05	4.20E-03	1.84E-02
Hexane	1.60E-05	6.16E-03	2.70E-02
4-Methyl-2-pentanone	1.92E-05	7.40E-03	3.24E-02
Aniline	1.97E-05	7.59E-03	3.32E-02
1,3-Butadiene	2.65E-05	1.02E-02	4.47E-02

Methodology

PTE (lb/hr) = Rateof Rubber Ground Off (lb/hr) x Emission Factor (lb/lb)

PTE (tons/yr) = PTE (lb/hr) x 8760 (hr/yr) x (1 ton/2000 lb)

PM/PM10 PTE (tons/yr) = PTE (lb/hr) x 8760 (hr/yr) x (1 ton/2000 lb) x (1-control efficiency)

Notes

***** Emission Factors are adapted from AP-42, Chapter 4.12, Table 4.12-12: Grinding Operations (draft-Dec. 1997)

***** The PM/PM10 PTE is calculated after controls because the cyclone is considered integral to the process.

* Chromium value represents total chromium. Grindings were analyzed for the presence of hexavalent chromium.

* The facility will grind used tires, known as carcasses. Thus, the carcass emission factor was used.

Carcass emissions are reported in pounds emitted per pound of rubber removed or ground-off.

Appendix A: Emissions Calculations
Curing HAPs Emissions

Company Name: Premier Bandag #4
Address City IN Zip: 9302 East 30th Street, Suite A, Indianapolis, Indiana 46229
Permit No.: 097-21559-00510
Reviewer: Boris Gorlin

Tires Cured:	588	tires/day
Total Tires Cured:	214,620	tires/yr
Rubber Weight:	75.0	lbs/tire
Rubber Content:	80%	rubber content
Percentage Non Pre-Cured Rubber:	40%	non pre-cured rubber
Total:	8,760,000	lbs rubber/yr

Pollutant	CAS #	Max Emission Factor lb/lb rubber	Curing Calculated Emissions ton/yr
Total HAPs		1.49E-04	**0.653**
2-Chloroacetophenone	532-27-4	3.83E-09	1.68E-05
1,2,4-Trichlorobenzene	120-82-1	7.76E-09	3.40E-05
Dibenzofuran	132-64-9	1.26E-08	5.52E-05
2-Methylphenol (o-cresol)	95-48-7	1.95E-08	8.53E-05
3/4-Methylphenol (m-cresol/p-cresol)		3.93E-08	1.72E-04
Benzyl Chloride	100-44-7	4.42E-08	1.94E-04
Isophorone	78-59-1	6.18E-08	2.71E-04
Chloroform	67-66-3	6.50E-08	2.85E-04
1,1-Dichloroethane (ethylidine chloride)	75-34-3	7.96E-08	3.49E-04
Biphenyl	92-52-4	9.53E-08	4.18E-04
Chloromethane (methyl chloride)	74-87-3	1.03E-07	4.52E-04
Trichloroethylene	79-01-6	1.10E-07	4.84E-04
Bromomethane (methyl bromide)	74-83-9	1.14E-07	4.97E-04
Acetophenone	98-86-2	1.50E-07	6.55E-04
1,1,2,2-Tetrachloroethane	79-34-5	2.06E-07	9.00E-04
Tetrachloroethene (perchloroethylene)	127-18-4	2.13E-07	9.33E-04
Naphthalene	91-20-3	2.83E-07	1.24E-03
o-Toluidine	95-53-4	2.88E-07	1.26E-03
t-Butyl Methyl Ether (methyl tert butyl ether)	1634-04-4	3.04E-07	1.33E-03
Acrolein	107-02-8	3.85E-07	1.68E-03
1,2-Dibromo-3-Chloropropane	96-12-8	4.11E-07	1.80E-03
Hexachlorobutadiene	87-68-3	4.11E-07	1.80E-03
1,1,1-Trichloroethane (methyl chloroform)	71-55-6	4.26E-07	1.86E-03
Benzene	71-43-2	5.38E-07	2.36E-03
1,1-Dichloroethene (1,1-dichloroethylene) (vinylidine dichloride)	75-35-4	5.85E-07	2.56E-03
Phenol	108-95-2	5.88E-07	2.58E-03
1,4-Dichlorobenzene	106-46-7	6.79E-07	2.97E-03
Cumene	98-82-8	6.81E-07	2.98E-03
Di-n-butylphthalate	84-74-2	9.49E-07	4.15E-03
Carbonyl Sulfide	463-58-1	1.09E-06	4.77E-03
bis(2-Ethylhexyl)phthalate	117-81-7	1.60E-06	7.01E-03
2-Butanone (methyl ethyl ketone)	78-93-3	1.64E-06	7.20E-03
Styrene	100-42-5	3.98E-06	1.74E-02
Methylene Chloride	75-09-2	7.45E-06	3.26E-02
Aniline	62-53-3	7.57E-06	3.31E-02
Hexane	110-54-3	7.98E-06	3.50E-02
o-Xylene	95-47-6	1.13E-05	4.94E-02
4-Methyl-2-Pentanone (methyl isobutyl ketone)	108-10-1	1.95E-05	8.56E-02
Ethylbenzene	100-41-4	2.11E-05	9.26E-02
Carbon Disulfide	75-15-0	2.56E-05	1.12E-01
Toluene	108-88-3	2.58E-05	1.13E-01
m-Xylene + p-Xylene		5.17E-05	2.26E-01

Methodology

Rubber Curing Rate (lbs/yr) = rate of tire curing (tires/hr) x 8760 (hrs/yr) x weight of rubber per tire (lbs/tire) x rubber content of tire (%) x content of non pre-cured rubber (%)

PTE (tons/yr) = Rate of rubber curing (lb/yr) x Emission Factor (lb/lb) x (1 ton/2000 lb)

Notes

*Emission Factors are adapted from AP-42, Chapter 4.12, Tables 4.12-10: Tire Cure Emission Factor. (draft - Dec, 1997)

Appendix A: Emissions Calculations
VOC Emissions

Company Name: Premier Bandag #4
Address City IN Zip: 9302 East 30th Street, Suite A, Indianapolis, Indiana 46229
Permit No.: 097-21559-00510
Reviewer: Boris Gorlin

Tire Buffing

	Tires Ground per day	pounds rubber buffed per tire	VOC emissions factor (lb / lb)	VOC emissions (tons/ year)
Potential	600	15.41	5.21E-04	**0.88**

VOC emissions (tons / yr) = tires ground / day * lbs rubber buffed / tire ground
* lb VOC / lb rubber buffed * 1 ton / 2000 lbs * 365 days / yr

Gluing Operations

	Amount of Glue Used (gal / hr)	Density of Glue (lbs / gal)	Percent VOC (Heptane) by weight	VOC (Heptane) emissions (tons / year)
Potential	0.63	5.81	86.7	**13.900**

VOC emissions (tons / yr) = glue used (gal/hr) * glue density (lbs/gal) * % VOC by weight
* 8760 hrs / yr * 2000 lbs / 1 ton

Curing Process

	Tire Cured per day	tire weight (lbs)	VOC emissions factor (lb / lb)	rubber content per tire (lb / lb)	Reduction for pre-curing	VOC emissions (tons/ year)
Potential	588	75	1.18E-03	1.00	0%	**9.50**

VOC emissions (tons / yr) = tires cured / day * lbs / tire cured * lbs VOC / lb rubber
* lb rubber / lb tire * (1-% reduction) * 365 day / yr * 1 ton / 2000 lbs
(1) - Emissions factors developed by the Rubber Manufacturers Association
and published in Chapter 4.12 of AP-42.

Appendix A: Emissions Calculations

PM Emissions from Steel Shot Blasting

Company Name: **Premier Bandag #4**

Address City IN Zip: **9302 East 30th Street, Suite A, Indianapolis, Indiana 46229**

Permit No.: **097-21559-00510**

Reviewer: **Boris Gorlin**

Table 1 - Emission Factors for Abrasives

Abrasive	Emission Factor: lb PM / lb abrasive	Emission Factor: lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	**0.004**	**0.86**
Other	0.010	

Table 2 - Density of A

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	**487**

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

	Nozzle Pressure (psig)						
Internal diameter, in	30	40	50	60	70	80	90
1/8	28	35	42	49	55	63	70
3/16	65	80	94	107	122	135	149
1/4	109	138	168	195	221	255	280
5/16	205	247	292	354	377	420	462
3/8	285	355	417	477	540	600	657
7/16	385	472	560	645	755	820	905
1/2	503	615	725	835	945	1050	1160
5/8	820	990	1170	1336	1510	1680	1850
3/4	1140	1420	1670	1915	2160	2400	2630
1	2030	2460	2900	3340	3780	4200	4640

Calculations

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)	
FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =	42
D = Density of abrasive (lb/ft3) From Table 2 =	487
D1 = Density of sand (lb/ft3) =	99
ID = Actual nozzle internal diameter (in) =	0.125
ID1 = Nozzle internal diameter (in) from Table 3 =	0.125
Flow Rate (FR) (lb/hr) =	**206.606**

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.004
FR = Flow Rate (lb/hr) =	206.606
w = fraction of time of wet blasting =	0
N = number of nozzles =	1
Uncontrolled Emissions =	**0.83 lb/hr**
	3.62 ton/yr
Control Efficiency =	99.99%
Controlled Emissions =	**0.0004 ton/yr**

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)

Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs

Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)

E = EF x FR x (1-w/200) x N

w should be entered in as a whole number (if w is 50%, enter 50)

brasives (lb/ft3)

100
77
165
309
507
720
940
1265
2030
2880
5060

per nozzle

%

Appendix A: Emissions Calculations
Summary of Emissions

Company Name: Premier Bandag #4
Address City IN Zip: 9302 East 30th Street, Suite A, Indianapolis, Indiana 46229
Permit No.: 097-21559-00510
Reviewer: Boris Gorlin

Sourcewide Potential Emissions Before Control (ton/yr)

Emissions Unit	PM	PM10	SO2	NOx	VOC	CO	HAPs
Tire Buffing	13.359	13.359	0	0	0.88	0	0.213
Powder Coating	2.628	2.628	0	0	0	0	0
Shot Blasting	3.620	3.620	0	0	0	0	0
Gluing Operations	2.031	2.031	0	0	13.90	0	0
Curing	0	0	0	0	9.50	0	0.653
Total	**21.637**	**21.637**	**0.00**	**0.00**	**24.276**	**0**	**0.866**

Sourcewide Emissions After Control (tons / yr)

Emissions Unit	PM	PM10	SO2	NOx	VOC	CO	HAPs
Tire Buffing	0.134	0.134	0	0	0.88	0	0.213
Powder Coating	0.0263	0.0263	0	0	0	0	0.000
Shot Blasting	0.0004	0.0004	0	0	0	0	0.000
Gluing Operations	2.031	2.031	0	0	13.900	0	0.000
Curing	0	0	0	0	9.497	0	0.653
Total	**2.191**	**2.191**	**0.0**	**0.00**	**24.276**	**0.0**	**0.866**

INDIANA DEPARTMENT of ENVIRONMENTAL MANAGEMENT
OFFICE of AIR QUALITY
and
CITY of INDIANAPOLIS
OFFICE of ENVIRONMENTAL SERVICES

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	**Premier Bandag #4**
Source Location:	**9302 East 30th Street, Indianapolis, IN 46229**
County:	**Marion**
SIC Code:	**7534**
Operation Permit No.:	**R097-21559-00510**
Permit Reviewer:	**B. Gorlin**

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the City of Indianapolis Office of Environmental Services (OES) have reviewed a transition application from a FESOP to Registration for Premier Bandag #4 relating to the operation of a tire retreading source.

Justification for the Transition from a FESOP F097-18105-00510 to a Registration

This existing source was issued an initial FESOP 097-18105-00510 on March 9, 2004. For the purpose of the initial air permit (the FESOP), the source's potential to emit PM/PM10 (unlimited, before control) was calculated using AP-42 emission factors at 441 tons per year.

On May 12, 2006, the source conducted a Stack Test that produced source specific emission rates which are significantly lower than the AP-42 emission factors, and unlimited PM/PM10 potential to emit before control is lower than the Part 70 emission threshold.

According to Emission Calculations, the source wide unlimited PM/PM10 and other regulated pollutants potential to emit are each below 25 tons per year. Therefore, this source qualifies for a Registration.

Permitted Emission Units and Pollution Control Equipment

(a) Tire Buffing operation, consisting of one (1) automatic and one (1) manual buffing units, each using a water cooling system, installed in 2000, with a total maximum capacity of twenty-five (25) tires per hour, and one (1) trailer/filter system as control, exhausting to the atmosphere.

(b) Steel shot blasting operation, installed in 2002, with a maximum capacity of ten (10) rims per hour, using steel shot abrasive, using dry filters for control, and exhausting to the atmosphere.

(c) Powder coating operation, installed in 2000, with a maximum capacity of six (6) rims per hour, using dry filters for control, and exhausting to the atmosphere.

(d) Adhesive spray coating (gluing) operation, installed in 1989, using Bandag Universal Cement, with a maximum usage of 0.63 gallons per hour, using no control, and exhausting to the atmosphere.

(e) Five (5) curing chambers, all installed in 2000, with a combined maximum capacity of 24.5 tires per hour, using no control and exhausting to the atmosphere.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the Federally Enforceable State Operating Permit, F097-18105-00510, issued on March 9, 2004.

The existing FESOP 097-18105-00510 will be revoked upon issuance of this Registration.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Administrator that the Registration 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 July 7, 2005, and additional information on May 9, 2006, November 21, 2006, and March 14, 2007.

Emission Calculations

See Appendix A pages 1 through 6 of 6 of this document for detailed emission calculations.

Potential to Emit of the Source Before Controls

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, inclulding 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/yr)
PM	21.637
PM-10	21.637
SO_2	0
VOC	24.276
CO	0
NO_x	0

HAPs	Potential to Emit (tons/yr)
m-Xylene + p-Xylene	0.226
Total	0.866

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all regulated pollutants are each less than twenty five (25) tons per year. Therefore, the source is subject to 326 IAC 2-5.1. A Registration will be issued.

(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 of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7 (Part 70 Permit Program).

(c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	attainment
PM-2.5	non-attainment
SO_2	maintenance attainment
NO_X	attainment
8-hour Ozone	basic non-attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_X) 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 NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as non-attainment for the 8-hour ozone standard. Therefore, VOC and NO_X emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Marion County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM2.5 emissions, it has directed states to regulate PM-10 emissions as a surrogate for PM2.5 emissions, pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability – Entire Source section.

(c) Marion County has been classified as attainment or unclassifiable in Indiana for PM10, SO_2, NO_X, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

Source Status

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Potential to Emit (tons/yr)
PM	21.637
PM-10	21.637
SO_2	0
VOC	24.276
CO	0
NO_x	0

HAPs	Potential to Emit (tons/yr)
m-Xylene + p-Xylene	0.226
Total	0.866

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.

(b) This existing source is not a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater and it is not in one of the 28 listed source categories.

(c) These emissions were based on Emission Calculation (TSD Appendix A, pages 1 to 6 of 6) and on the May 5, 2006 PM/PM10 stack test results for tire buffing operations at this source.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including emissions from this permit, R097-21559-00510, is 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 per year.

This status is based on all the air approvals issued to the source. This status has been verified by the OES inspector assigned to the source.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit.

This source is not subject to 40 CFR 60.540 Subpart BBB (Standards of Performance for the Rubber Tire Manufacturing Industry) and 326 IAC 12 because this source is a tire retreading operation and not a rubber tire manufacturing plant. Therefore, Premier Bandag #4 is not subject to 40 CFR 60.540 Subpart BBB.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20, and 40 CFR Part 63) included in this permit.

This source is not subject to 40 CFR 63.5980 Subpart XXXX (National Emission Standards for Hazardous Air Pollutants: Rubber Tire Manufacturing Industry) and 326 IAC 20 because this source is not a major source of hazardous air pollutants. Therefore, Premier Bandag #4 is not subject to 40 CFR 63.5980 Subpart XXXX.

State Rule Applicability – Entire Source

326 IAC 2-1.1-5 (Non-attainment New Source Review)

This existing source is not considered major under nonattainment NSR because it has the potential to emit less than 100 tons per year of PM10 (as surrogate for PM2.5). Therefore, the Non-attainment New Source Review requirements are not applicable.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) and 326 IAC 2-3 (Emission Offset)

This source commenced construction and operation after 1977. This source was not deemed a major stationary source because no attainment regulated pollutant emissions are equal to or greater than two hundred fifty (250) tons per year, this source is not one of the 28 listed source categories under 326 IAC 2-2 or 326 IAC 2-3, and no non-attainment regulated pollutant emissions are equal to or greater than one hundred (100) tons per year. There have been no modifications or revisions to this source that were major modifications pursuant to 326 IAC 2-2 or 326 IAC 2-3.

326 IAC 2-4.1 (New Source Toxics Control)

This existing source commenced operation before July 27, 1997, does not have the potential to emit any single hazardous air pollutant (HAP) equal to or greater than ten (10) tons per year nor does this source have the potential to emit HAP of equal to or greater than twenty-five (25) tons per year for any combination of HAP. This source did not undergo construction or reconstruction of a major HAP source after July 27, 1997. Therefore, this source is not subject to 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants).

326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1(a)(1), (2), and (3), this source is not subject to 326 IAC 2-6 (Emission Reporting) because, as a Registration source, it is not required to have an operating permit under 326 IAC 2-7, it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year, and it is not located in Lake or Porter Counties. However, pursuant to 326 IAC 2-5.5-4(a)(3), an authorized individual is required to provide an annual notice to IDEM, OAQ and OES that the source is in operation and in compliance with the Registration.

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 the permit:

(a) Opacity shall not exceed an average of thirty percent (30%) 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.

326 IAC 2-5.5 (Registrations)

The potential to emit PM, PM-10, NO_X, CO, SO_2 and VOC are each less than twenty five (25) tons per year. Premier Bandag #4 is not a major source of hazardous air pollutants (HAP). Therefore, this source is subject to the provisions of 326 IAC 2-5.5. A Registration will be issued.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)

This source and its facilities located in Marion County are not subject to this rule because:

(a) the source is not specifically listed in 326 IAC 6.5-5 (Marion County);

(b) source wide potential to emit PM is less than 100 tons per year, and actual PM emissions are less than 10 tons per year.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to the provisions of 326 IAC 6-4 for fugitive dust emissions. The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right of way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 6-5 (Fugitive Particulate Matter Emissions)

This source does not have the potential to emit fugitive particulate matter equal to or greater than twenty five (25) tons per year. Therefore, this source is not subject to 326 IAC 6-5 (Fugitive Particulate Matter Emissions).

326 IAC 7 (Sulfur Dioxide Rules)

No emission unit at this source has the potential to emit twenty five (25) tons per year or ten (10) pounds per hour of sulfur dioxide (SO_2) (see TSD Appedix A page 1 and 6 of 6). Therefore, this source is not subject to 326 IAC 7 (Sulfur Dioxide Rules).

326 IAC 8 (Volatile Organic Compound Rules)

See discussion under State Rule Applicability – Individual Facilities of this Technical Support Document.

326 IAC 8-1-6 (General Provisions Relating to VOC Rules: General Reduction Requirements for New Facilities)

This source does not have any emission unit otherwise regulated by other provisions of 326 IAC 8, with the potential to emit twenty-five (25) tons or more per year of volatile organic compounds (VOC) (see Appendix A page 6 of 6). Therefore, 326 IAC 8-1-6 (General Provisions Relating to VOC Rules: General Reduction Requirements for New Facilities) does not apply to Premier Bandag #4.

326 IAC 11 (Emission Limitations for Specific Types of Operations)

This tire buffing operation does not perform any specific type of operation identified in 326 IAC 11 (Emission Limitations for Specific Types of Operations). Therefore, this source is not subject to 326 IAC 11.

326 IAC 12 (New Source Performance Standards)

This source is not subject to 326 IAC 12 and 40 CFR 60.540 Subpart BBB (Standards of Performance for the Rubber Tire Manufacturing Industry) because this source is a tire retreading operation and not a rubber tire manufacturing plant. This source is not subject to any other provisions under 326 IAC 12 and 40 CFR Part 60 (New Source Performance Standards) applicable to this source.

326 IAC 14 (Emission Standards for Hazardous Air Pollutants)

There are no provisions under 326 IAC 14 (Emission Standards for Hazardous Air Pollutants) and 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants) applicable to any specific emission unit or operation at this source. Therefore, this source is not subject to the provisions of 326 IAC 14 (Emission Standards for Hazardous Air Pollutants) and 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).

326 IAC 20 (Hazardous Air Pollutants)

Premier Bandag #4 is not a major source of hazardous air pollutants (HAP) and does not perform operations specifically identified in 326 IAC 20. Therefore, this source is not subject to 326 IAC 20 (Hazardous Air Pollutants).

State Rule Applicability – Individual Facilities

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

(a) Pursuant to 326 IAC 6-3-1(b)(14), Adhesive spray coating (gluing) operation with PM unlimited PTE less than 0.551 lb/hr (see TSD Appendix A, Page 1 of 6) is exempt from requirements of 326 IAC 6-3.

(b) Pursuant to 326 IAC 6-3-2(e), the allowable particulate emission rate from the Tire Buffing operation shall not exceed 3.848 pounds per hour when operating at a process weight rate of 0.910 tons per hour (see TSD Appendix A, page 1 of 6).

Potential to emit PM from the buffing operation, established during the Stack Test on May 12, 2006, is 0.031 lb/hr (after control); therefore, the source will be able to comply with this limit.

The water cooling system/fan/trailer/filter system shall be in operation at all times when the buffing operation is in operation, in order to comply with this limit.

(c) Pursuant to 326 IAC 6-3-2(e), the allowable particulate emission rate from the Powder Coating operation shall not exceed 3.545 pounds per hour when operating at a process weight rate of 0.675 tons per hour (see TSD Appendix A, page 1 of 6).

Potential to emit PM from the Powder Coating operation after control is 0.006 lb/hr; therefore, the source will be able to comply with this limit.

The dry filters shall be in operation at all times when the powder coating operation is in operation, in order to comply with this limit.

(d) The pounds per hour limits for Tire Buffing operation and Powder Coating operations were calculated using the following equation.

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

$E = 4.10P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

(e) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emission rate from the Steel Shot Blasting operation shall not exceed 0.551 pounds per hour when operating at a process weight less than 100 lb/hr (see TSD Appendix A, page 5 of 6).

Potential to emit PM from the Steel Shot Blasting operation is 0.0004 lb/hr after control; therefore, the source will be able to comply with this limit.

Powder Coating operation

326 IAC 8-2-9 (Surface Coating Emission Limitations: Miscellaneous Metal Coating Operations)

The Powder Coating operation is not subject to 326 IAC 8-2-9 (Surface Coating Emission Limitations: Miscellaneous Metal Coating Operations) because it does not emit VOC (see TSD Appendix A, page 6 of 6). Therefore, 326 IAC 8-2-9 (Surface Coating Emission Limitations: Miscellaneous Metal Coating Operations) does not apply to the Powder Coating operation.

Testing Requirements

The source conducted a Stack Test on May 12, 2006 that demonstrated compliance with the existing permit (FESOP) PM limit of 0.03 gr/dscf. Emission rates obtained during the Stack Test are much lower than the AP-42 emission factors (see TSD Appendix A, page 1 of 6), which qualified the source for transition from FESOP to Registration.

No stack test requirements are included in this Registration.

Conclusion

The operation of this tire retreading source shall be subject to the conditions of the Registration 097-21559-00510.