



TO: Interested Parties / Applicant

RE: Koch's Electric Inc./ 097-22672-00577

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

## Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

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 from 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



Air Quality Hotline: 317-327-4AIR | [knozone.com](http://knozone.com)

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](http://indygov.org/dpw)

June 5, 2006



Mr. Kevin Koch  
Koch's Electric Inc.  
1301 East 10<sup>th</sup> Street  
Indianapolis, IN 46202

CERTIFIED MAIL 7000 0600 0023 5187 1622

RE: Exempt Construction and Operation  
Status  
097-22672-00577

Dear Mr. Koch:

The application from Koch's Electric Inc., received on May 25, 2005, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following electric motor repair service, located at 1301 East 10<sup>th</sup> Street, Indianapolis, Indiana 46202, is classified as exempt from air pollution permit requirements.

The source consists of the following process/equipment:

- (a) One (1) Sandstorm Model SC 30-61-28 sandblast cabinet.
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

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 Limitation), opacity shall meet the following:
  - (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.
  - (c)
- (2) Pursuant to 326 IAC 8-3-1(a)(2), this degreasing operation is subject to requirements of 326 IAC 8-3-2 (Cold cleaner operation). The owner or operator of a cold cleaning facility shall:
  - (a) Equip the cleaner with a cover;
  - (b) Equip the cleaner with a facility for draining cleaned parts;
  - (c) Close the degreaser cover whenever parts are not being handled in the cleaner;



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- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
  - (e) Provide a permanent, conspicuous label summarizing the operating requirements:
  - (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.
- (2) Pursuant to 326 IAC 8-3-1(b)(1)(A), this degreasing operation is subject to requirements of 326 IAC 8-3-5 (Cold cleaner degreaser operation and control). The owner or operator of a cold cleaning facility shall:
- (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (1) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
    - (2) the solvent is agitated; or
    - (3) the solvent is heated.
  - (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (c) Equip the degreaser with a freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater, if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)).
  - (d) Provide a permanent, conspicuous label which lists the operating requirements outlined below.
  - (e) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
    - (1) Close the cover whenever articles are not being handled in the degreaser.
    - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
    - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

This exemption is the second air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Indianapolis Office of Environmental Services (OES) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. If you have any questions, please feel free to contact Monica Doyle at 317-327-2846.

Sincerely,

ORIGINAL SIGNED BY

Felicia A. Robinson  
Manager of Environmental Planning  
Office of Environmental Services

FAR/mmd

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

**Indiana Department of Environmental Management  
Office of Air Quality  
and  
City Of Indianapolis Office of Environmental Services**

Technical Support Document (TSD) for an Exemption

**Source Background and Description**

<b>Source Name:</b>	<b>Koch's Electric Inc.</b>
<b>Source Location:</b>	<b>1301 E. 10<sup>th</sup> Street</b>
<b>County:</b>	<b>Marion</b>
<b>SIC Code:</b>	<b>7694</b>
<b>Exemption No.:</b>	<b>097-22672-00577</b>
<b>Permit Reviewer:</b>	<b>Monica Doyle</b>

The Indiana Department of Environmental Management (IDEM) Office of Air Quality (OAQ) and Indianapolis Office of Environmental Services (OES) have reviewed an application from Koch's Electric Inc. relating to the operation of an electric motor repair service.

**Exempt Emission Units and Pollution Control Equipment**

- (a) One (1) Sandstorm Model SC 30-61-28 sandblast cabinet.
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

**Existing Approvals**

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

- (a) Operating Permit 5379, issued on October 1, 1996.

All conditions from previous approvals were incorporated into this permit except the following:

- (a) Condition 4: VISIBLE EMISSIONS DURING BLASTING OF LEAD-CONTAINING MATERIAL

Reason not incorporated: Pursuant to recodification, effective January 4, 1998 Indianapolis Air Pollution Control Board (IAPCB) Regulation I was recodified to regulation 5.

- (b) Condition 6: COMPLIANCE WITH IAPC BOARD REGULATION II-4

Reason not incorporated: Pursuant to recodification, effective May 9, 2000, Indianapolis Air Pollution Control Board (IAPCB) Regulation II was recodified to regulation 6.

### Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification that the baghouse be considered an integral part of the sandblast cabinet:

The process cannot operate without the control equipment, which provides the airflow for the unit. Therefore, the permitting level and rule applicability will be determined using the potential to emit after the baghouse.

### Enforcement Issues

There are no enforcement actions pending. Pursuant to 326 IAC 2.1-1-2, this source is exempt from permitting requirements.

### Recommendation

The staff recommends to the Administrator that an exemption from air pollution permit requirements be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, information used in this review was derived from the source's letter received on May 25, 2005.

### 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, 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/yr)
PM	negligible
PM-10	negligible
SO <sub>2</sub>	0.0
VOC	2.7
CO	0.0
NO <sub>x</sub>	0.0

HAPs	Potential to Emit (tons/yr)
Highest single HAP	negligible

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption 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/or 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 subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.

### County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	Unclassifiable
PM2.5	Nonattainment
SO <sub>2</sub>	Maintenance attainment
NO <sub>x</sub>	Attainment
1-hour Ozone	Maintenance attainment
8-hour Ozone	Basic nonattainment
CO	Attainment
Lead	unclassifiable

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) 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<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO<sub>x</sub> 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 PM10 emissions as surrogate for PM2.5 emissions, pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability for the source section.
- (c) Marion County has been classified as attainment or unclassifiable for all other criteria pollutants. 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 28 listed source categories under 326 IAC 2-2 or 2-3 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

**Source Status**

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

Pollutant	Emissions (tons/yr)
PM	negligible
PM-10	negligible
SO <sub>2</sub>	0.0
VOC	2.7
CO	0.0
NO <sub>x</sub>	0.0
Single HAP	negligible
Combination HAPs	negligible

- (a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater, no nonattainment 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. Therefore, pursuant to 326 IAC 2-2 and 2-3, the PSD and Emission Offset requirements do not apply.

## Part 70 Permit Determination

### 326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit 097-22672-00577, 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 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 40 CFR Part 60 or NESHAP 40 CFR Part 63 applicable to this source.
- (b) NESHAP 40 CFR Part 63, Subpart T (National Emission Standards for halogenated Solvent Cleaning) is not applicable because no halogenated HAP solvents (as defined in 40 CFR Part 63, §63.460(a)), are used in the aqueous parts washing operation.

## State Rule Applicability

### 326 IAC 2-1.1-3 (Exemptions)

- (a) One (1) Sandstorm Model SC 30-61-28 self-contained sandblast cabinet.
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

### 326 IAC 5-1 (Opacity Limitations)

This source is located in Marion County. Therefore, 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 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 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(b)(14), this source is not subject to requirements of 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies) because the potential to emit is less than five hundred fifty-one thousandths (0.551) pound per hour.

### 326 IAC 6.5-1-1 (Particulate Rules)

Pursuant to 326 IAC 6.5-1-1 (Particulate Rules) shall not be applicable to this source because the potential to emit for particulate matter is less than 100 tons and the actual emissions are less than 10 tons.

### 326 IAC 8-3 (Organic Solvent Degreasing Operations)

Pursuant to 326 IAC 8-3-1(a)(2), this degreasing operation is subject to requirements of 326 IAC 8-3-2 (Cold cleaner operation). The owner or operator of a cold cleaning facility shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operating requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

Pursuant to 326 IAC 8-3-1(b)(1)(A), this degreasing operation is subject to requirements of 326 IAC 8-3-5 (Cold cleaner operation and control). The owner or operator of a cold cleaning facility shall:

- (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
  - (1) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
  - (2) the solvent is agitated; or
  - (3) the solvent is heated.
- (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (c) Equip the degreaser with a freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater, if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)).
- (d) Provide a permanent, conspicuous label which lists the operating requirements outlined below.
- (e) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
  - (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**Conclusion**

The operation of this electric motor repair service shall be subject to the conditions of this Exemption No.: 097-22672-00577.

**Appendix A: Emission Calculations**

**Abrasive Blasting - Confined**

Company Name: Koch's Electric Inc.  
 Address City IN Zip: 1301 E. 10th Street  
 Plt ID: 097-22672-00577  
 Reviewer: M. Doyle  
 Date: May 31, 2006

**Table 1 - Emission Factors for Abrasives**

Abrasive	Emission Factor	
	lb PM / lb abrasive	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 Abrasives (lb/ft3)**

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

Internal diameter, in	Nozzle Pressure (psig)							
	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

**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 =  
 D = Density of abrasive (lb/ft3) From Table 2 =  
 D1 = Density of sand (lb/ft3) =  
 ID = Actual nozzle internal diameter (in) =  
 ID1 = Nozzle internal diameter (in) from Table 3 =

720
160
160
0.375
0.375

**Flow Rate (FR) (lb/hr) = 720.000 per nozzle**

**Uncontrolled Emissions (E, lb/hr)**

EF = emission factor (lb PM/ lb abrasive) From Table 1 =  
 FR = Flow Rate (lb/hr) =  
 w = fraction of time of wet blasting =  
 N = number of nozzles =

0.010
720.000
0 %
1

<b>Uncontrolled Emissions =</b>	<b>7.20 lb/hr</b>
	<b>31.54 ton/yr</b>
<b>Controlled Emissions =</b>	<b>0.32 ton/yr</b>

**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)<sup>2</sup> 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)