



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

June 10, 2004

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: NTK Precision Axle / 023-18813-00038

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require 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 Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot 9/16/03

**Appendix A: Emission Calculations
Natural Gas Combustion Only
Boiler (identified as EU 11)**

Company Name: NTK Precision Axle Corporation
Address: 741 County Road, 200 West, Frankfort, Indiana 46401
Permit: 023-18813
Plt ID: 023-00038
Reviewer: ERG/SD
Date: March 29, 2004

Total Heat Input Capacity
MMBtu/hour

1.50

Potential Throughput
MMCF/year

13.1

	Pollutant					
	* PM	* PM10	SO ₂	** NO _x	VOC	CO
Emission Factor (lb/MMCF)	7.60	7.60	0.60	100	5.50	84.0
Potential To Emit (tons/year)	0.05	0.05	0.00	0.66	0.04	0.55

* PM and PM10 emission factors are filterable and condensable PM and PM10 combined.

** Emission factor for NO_x: Uncontrolled = 100 lb/MMCF.

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (July, 1998).

METHODOLOGY

Potential Throughput (MMCF/year) = Heat Input Capacity (MMBtu/hour) * 8760 hours/year * 1 MMCF/1000 MMBtu

Potential To Emit (tons/year) = Potential Throughput (MMCF/year) * Emission Factor (lb/MMCF) * 1 ton/2000 lbs

See next page for HAPs emissions calculations.

Appendix A: Emission Calculations
Natural Gas Combustion Only
Boiler (identified as EU 11)

Company Name: NTK Precision Axle Corporation
Address: 741 County Road, 200 West, Frankfort, Indiana 46401
Permit: 023-18813
Plt ID: 023-00038
Reviewer: ERG/SD
Date: March 29, 2004

HAPs - Organics

Emission Factor (lb/MMCF)	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential To Emit (tons/year)	1.38E-05	7.88E-06	4.93E-04	1.18E-02	2.23E-05

HAPs - Metals

Emission Factor (lb/MMCF)	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential To Emit (tons/year)	3.29E-06	7.23E-06	9.20E-06	2.50E-06	1.38E-05

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors as provided above are from AP-42, Chapter 1.4, Table 1-4.2, 1.4-3 and 1.4-4 (July, 1998). Additional HAPs emission factors are available in AP-42, Chapter 1.4.



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

**NEW SOURCE CONSTRUCTION PERMIT
and MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR QUALITY**

**NTK Precision Axle Corporation
741 County Road 200 West
Frankfort, Indiana 46041**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, (326 IAC 2-5.1 if new source), 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 023-18813-00038	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 10, 2004 Expiration Date: June 10, 20049

TABLE OF CONTENTS

A	SOURCE SUMMARY	4
A.1	General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]	
A.2	Emission Units and Pollution Control Equipment Summary	
B	GENERAL CONDITIONS	5
B.1	Permit No Defense [IC 13]	
B.2	Definitions	
B.3	Effective Date of the Permit [IC 13-15-5-3]	
B.4	Revocation of Permits [326 IAC 2-1.1-9(5)]	
B.5	Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]	
B.6	Modification to Permit [326 IAC 2]	
B.7	Minor Source Operating Permit [326 IAC 2-6.1]	
B.8	Phase Construction Time Frame	
B.9	Annual Notification [326 IAC 2-6.1-5(a)(5)]	
B.10	Preventive Maintenance Plan [326 IAC 1-6-3]	
B.11	Permit Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]	
B.12	Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2] [IC 13-17-3-2][IC 13-30-3-1]	
B.13	Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]	
B.14	Annual Fee Payment [326 IAC 2-1.1-7]	
C	SOURCE OPERATION CONDITIONS	10
C.1	Particulate Emission Limitation For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]	
C.2	Permit Revocation [326 IAC 2-1.1-9]	
C.3	Opacity [326 IAC 5-1]	
C.4	Fugitive Dust Emissions [326 IAC 6-4]	
C.5	Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]	
	Testing Requirements	
C.6	Performance Testing [326 IAC 3-6]	
	Compliance Requirements [326 IAC 2-1.1-11]	
C.7	Compliance Requirements [326 IAC 2-1.1-11]	
	Compliance Monitoring Requirements	
C.8	Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]	
	Record Keeping and Reporting Requirements	
C.9	Malfunctions Report [326 IAC 1-6-2]	
C.10	General Record Keeping Requirements [326 IAC 2-6.1-5]	
C.11	General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]	
D.1	EMISSIONS UNIT OPERATION CONDITIONS	15
	Emission Limitations and Standards	
D.1.1	Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]	
D.1.2	Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]	
	Compliance Determination Requirements	
D.1.3	Volatile Organic Compounds (VOC)[326 IAC 8-1-2] [326 IAC 8-1-4]	

TABLE OF CONTENTS (Continued)

Record Keeping Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]
D.1.4 Record Keeping Requirements

D.2 EMISSIONS UNIT OPERATION CONDITIONS..... 16

Emission Limitations and Standards
D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
D.2.2 Volatile Organic Compounds (VOC) [326 8-3-5]

D.3 EMISSIONS UNIT OPERATION CONDITIONS..... 18

Emission Limitations and Standards
D.3.1 Particulate [326 IAC 6-2-4]

D.4 EMISSIONS UNIT OPERATION CONDITIONS..... 19

Emission Limitations and Standards

Annual Notification 20
Malfunction Report 21

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates stationary automotive components manufacturing plant.

Authorized Individual:	President
Source Address:	741 County Road 200 West, Frankfort, Indiana 46041
Mailing Address:	1600 East Bishop Court, Mt. Prospect, Illinois, 60056
General Source Phone:	(847) 298-7500
SIC Code:	3714
County Location:	Clinton
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD; Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) Hub ring manufacturing operations consisting of:
- (1) Two (2) hub ring turning facilities (identified as EU-01 and EU-03), with a total maximum consumption rate of 1.53 gallons of VOC-containing material per hour.
 - (2) One (1) induction heat treatment facility (identified as EU-02), with a maximum consumption rate of 2.2 gallons of VOC-containing material per hour and exhausting at Stacks EP-01 through 18.
 - (3) One (1) broaching facility (identified as EU-04), with a maximum consumption rate of 1.56 gallons of VOC-containing material per hour.
 - (4) One (1) rust proofing facility (identified as EU-05), with a maximum consumption rate of 4.00 gallons of VOC-containing material per hour.
- (b) Shaft manufacturing operations consisting of:
- (1) One (1) sawing facility (identified as EU-06), with a maximum consumption rate of 0.26 gallons of VOC-containing material per hour.
 - (2) One (1) CVJ shaft turning and spline facility (identified as EU-07), with a maximum consumption rate of 1.84 gallons of VOC-containing material per hour.
 - (3) One (1) induction heat treatment facility (identified as EU-08), which uses non VOC-containing material, with a maximum consumption rate of 22.0 gallons per hour.
 - (4) One (1) Parkerizing facility (identified as EU-09), with a maximum consumption rate of

5.23 gallons per hour, and exhausting at stacks EP-29 and EP-30.

- (5) One (1) electro-coating line (identified as EU-10), with a maximum consumption rate of 1.78 gallons of coating per hour, and exhausting at stacks EP31 through 33.
- (c) Two (2) cold cleaner tanks (identified as EU-13), each with a storage capacity of 78 gallons and maximum solvent consumption of 0.50 gallons per day. These units are used for facility maintenance purposes.
- (d) One (1) degreaser tank used in conjunction with the Parkerizing facility, with a storage capacity of 78 gallons and maximum consumption of 1.39 gallons of non VOC-containing material per hour.
- (e) One (1) natural gas-fired boiler (identified as EU-11), with a maximum heat input capacity of 1.67 MMBtu per hour and exhausting at Stack EP-34.
- (f) Natural gas-fired combustion units (identified as EU-12), with a total maximum heat input capacity of 11.0 MMBtu per hour.
- (g) One (1) wastewater treatment facility (identified as EU-14).

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.6 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.7 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.
 - (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand-delivered to IDEM.
 - (2) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2-6.1-6 and an Operation Permit Validation Letter is issued.

- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start-up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

B.8 Phase Construction Time Frame

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), IDEM may revoke this permit to construct if the:

- (a) Construction of this stationary automotive components manufacturing plant has not begun within eighteen (18) months from the effective date of this permit or if during the construction of stationary automotive components manufacturing plant, work is suspended for a continuous period of one (1) year or more.

The OAQ may extend such time upon satisfactory showing that an extension, formally requested by the Permittee is justified.

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the OAQ stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days (this time frame is determined on a case-by-case basis but no more than ninety (90) days) after issuance of this permit, including the following information on each emissions unit:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ,. IDEM, OAQ, may require the Permittee to revise its PMP whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) To the extent the Permittee is required by 40 CFR Parts 60 and/or 63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.
- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a non-road engine, as defined in 40 CFR 89.2.

**B.12 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2]
[IC13-17-3-2][IC 13-30-3-1]**

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the

information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.13 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

B.14 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

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, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

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).

C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-7-1(34).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Demolition and renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements

C.6 Performance Testing [326 IAC 3-6]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6

(Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ (and local agency) not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, (and local agency), if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.7 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements

C.8 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

Record Keeping and Reporting Requirements

C.9 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to IDEM, OAQ or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of

the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.10 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.11 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1

FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (a) Hub ring manufacturing operations consisting of:
 - (1) Two (2) hub ring turning facilities (identified as EU-01 and EU-03), with a total maximum consumption rate of 1.53 gallons of VOC-containing material per hour.
 - (2) One (1) induction heat treatment facility (identified as EU-02), with a maximum consumption rate of 2.2 gallons of VOC-containing material per hour and exhausting at Stacks EP-01 through 18.
 - (3) One (1) broaching facility (identified as EU-04), with a maximum consumption rate of 1.56 gallons of VOC-containing material per hour.
 - (4) One (1) rust proofing facility (identified as EU-05), with a maximum consumption rate of 4.00 gallons of VOC-containing material per hour.
- (b) Shaft manufacturing operations consisting of:
 - (1) One (1) sawing facility (identified as EU-06), with a maximum consumption rate of 0.26 gallons of VOC-containing material per hour.
 - (2) One (1) CVJ shaft turning and spline facility (identified as EU-07), with a maximum consumption rate of 1.84 gallons of VOC-containing material per hour.
 - (3) One (1) induction heat treatment facility (identified as EU-08), which uses non VOC-containing material, with a maximum consumption rate of 22.0 gallons per hour.
 - (4) One (1) Parkerizing facility (identified as EU-09), with a maximum consumption rate of 5.23 gallons per hour, and exhausting at stacks EP-29 and EP-30.
 - (5) One (1) electro-coating line (identified as EU-10), with a maximum consumption rate of 1.78 gallons of coating per hour, and exhausting at stacks EP31 through 33.

These units were permitted in 2004.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.1.1 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9, the Permittee shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator, for air dried or forced warm air dried coatings. Therefore, the electro-coating line and rust proofing facility shall each be limited to 3.5 pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

D.1.2 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of rust proofing and electro-coating facilities during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

Compliance Determination Requirements

D.1.3 Volatile Organic Compounds (VOC)[326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer copies of the “as supplied” and “as applied” VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Record Keeping Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.1.1.
- (1) The VOC content of each coating material and solvent used less water.
 - (2) The amount of coating material and solvent used on monthly basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2

FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (c) Two (2) cold cleaner tanks, each with a storage capacity of 78 gallons and maximum solvent consumption of 0.50 gallons per day. These units are used for facility maintenance purposes.
- (d) One (1) degreaser tank used in conjunction with the Parkerizing facility, with a storage capacity of 78 gallons and maximum consumption of 1.39 gallons of non VOC-containing material per hour.

These units were permitted in 2004.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee 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 operation 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.

D.2.2 Volatile Organic Compounds (VOC) [326 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) 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));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
- (2) 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.

- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices 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)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), for cold cleaning facility construction of which commenced after July 1, 1990, the Permittee 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.

SECTION D.3

FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (e) One (1) natural gas-fired boiler (identified as EU-11), with a maximum heat input capacity of 1.67 MMBtu per hour and exhausting at Stack EP-34.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.3.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (a) (Particulate Emission Limitations for Sources of Indirect Heating the PM emissions from the 1.67 MMBtu per hour natural gas-fired boiler (identified as EU-11) shall not exceed 0.60 pounds of particulate matter per million British thermal units heat input (lbs per MMBtu heat input).

SECTION D.4

FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (f) Natural gas-fired combustion units (identified as EU-12), with a total maximum heat input capacity of 11.0 MMBtu per hour.
- (g) One (1) wastewater treatment facility (identified as EU-14).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

There are no specifically applicable regulations that apply to these emission units.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	NTK Precision Axle Corporation
Address:	741 County Road 200 West
City:	Frankfort, Indiana 46041
Phone #:	(847) 298-7500
MSOP #:	023-18813-00038

I hereby certify that NTK Precision Axle Corporation is still in operation.
 no longer in operation.

I hereby certify that NTK Precision Axle Corporation is in compliance with the requirements of MSOP 023-18813-00038
 not in compliance with the requirements of MSOP 023-18813-00038

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

**Indiana Department of Environmental Management
Office of Air Quality**

Addendum to the
Technical Support Document (TSD)
for a New Source Construction and Minor Source Operating Permit

Source Background and Description

Source Name:	NTK Precision Axle Corporation
Source Location:	741 County Road 200 West, Frankfort, Indiana 46041
County:	Clinton
SIC Code:	3714
Operation Permit No.:	023-18813-00038
Permit Reviewer:	ERG/SD

On April 30, 2004, the Indiana Department of Environmental Management (IDEM) and Office of Air Quality (OAQ) had a notice published in the The Times of Frankfort, Indiana stating that NTK Precision Axle Corporation had applied for a Minor Source Operating Permit (MSOP) to construct and operate a stationary automotive components manufacturing plant. The notice also stated that IDEM, OAQ proposed to issue a permit for this construction and operation, and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On May 21, 2004, NTK Precision Axle Corporation submitted comments on the proposed MSOP. The summary of the comments and responses are shown below. Deleted text will be shown as ~~strikeout~~ and new text will be shown as **bold**.

Comment 1:

The source requested changes to the facility description listed under Section A.2, correction to their respective maximum rates, and to include a proposed wastewater treatment facility (identified as EU-14) as shown in source comments, Attachment A. In addition, the source requested to delete item (d) from Section A.2 because the degreaser used in conjunction with the Parkerizing facility does not use any organic solvents.

Response to Comment 1:

Section A.2 has been corrected as follows. The facility descriptions included in Section D.1 through D.4 has been corrected so that it agrees with the description shown below. Item (d) under Section A.2 was not deleted from the permit because IDEM, OAQ must account for every facility present at the source, irrespective of the type of material or solvent used.

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) Hub ring manufacturing operations consisting of:

- (1) Two (2) hub ring turning facilities (identified as EU-01 and EU-03), with a total maximum **consumption** ~~throughput~~ rate of **1.531.05** gallons of **VOC-containing material** per hour.
 - (2) One (1) induction heat treatment facility (identified as EU-02), with a maximum **consumption** ~~throughput~~ rate of **2.21.05** gallons of **VOC-containing material** per hour and exhausting at ~~S~~stacks EP-01 through 18.
 - (3) One (1) broaching facility (identified as EU-04), with a maximum **consumption** ~~throughput~~ rate of **1.561.07** gallons of **VOC-containing material** per hour.
 - (4) One (1) rust proofing facility (identified as EU-05), with a maximum **consumption** ~~throughput~~ rate of 4.00 gallons of **VOC-containing material** per hour.
- (b) Shaft manufacturing operations consisting of:
- (1) One (1) sawing facility (identified as EU-06), with a maximum **consumption** ~~throughput~~ rate of **0.260.18** gallons of **VOC-containing material** per hour.
 - (2) One (1) CVJ shaft turning and spline facility (identified as EU-07), with a maximum **consumption** ~~throughput~~ rate of **1.841.26** gallons of **VOC-containing material** per hour.
 - (3) One (1) induction heat treatment facility (identified as EU-08), **which uses non VOC-containing material**, with a maximum **consumption** ~~throughput~~ rate of **22.0** ~~0.45~~-gallons per hour.
 - (4) One (1) Parkerizing facility (identified as EU-09), with a maximum **consumption** ~~throughput~~ rate of **5.231.61** gallons per hour, and exhausting at stacks EP-29 and EP-30.
 - (5) One (1) electro-coating line (identified as EU-10), with a maximum **consumption** ~~throughput~~ rate of **1.781.22** gallons of coating per hour, and exhausting at stacks EP31 through 33.
- (c) Two (2) cold cleaner tanks (**identified as EU-13**), each with a storage capacity of 78 gallons and maximum solvent consumption of 0.50 gallons of ~~Safety-Kleen~~ per day. These units are used for **facility maintenance purposes** ~~degreasing metal inserts~~.
- (d) One (1) ~~degreaser cold cleaner~~ tank used in conjunction with the ~~P~~Parkerizing facility, with a storage capacity of 78 gallons and maximum ~~solvent~~ consumption of 1.39 gallons of **non VOC-containing material** per hour. ~~This unit is used for degreasing metal inserts.~~
- (e) One (1) natural gas-fired boiler (identified as EU-11), with a maximum heat input capacity of **1.671.50** MMBtu per hour and exhausting at Stack EP-34.
- (f) Natural gas-fired combustion units (identified as EU-12), with a total maximum heat input capacity of 11.0 MMBtu per hour.
- (g) **One (1) wastewater treatment facility (identified as EU-14).**

SECTION D.1

FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (a) Hub ring manufacturing operations consisting of:
 - (1) Two (2) hub ring turning facilities (identified as EU-01 and EU-03), with a total maximum **consumption throughput** rate of **1.534-05** gallons of **VOC-containing material** per hour.
 - (2) One (1) induction heat treatment facility (identified as EU-02), with a maximum **consumption throughput** rate of **2.24-05** gallons of **VOC containing material** per hour and exhausting at ~~S~~stacks EP-01 through 18.
 - (3) One (1) broaching facility (identified as EU-04), with a maximum **consumption throughput** rate of **1.564-07** gallons of **VOC-containing material** per hour.
 - (4) One (1) rust proofing facility (identified as EU-05), with a maximum **consumption throughput** rate of 4.00 gallons of **VOC-containing material** per hour.

- (b) Shaft manufacturing operations consisting of:
 - (1) One (1) sawing facility (identified as EU-06), with a maximum **consumption throughput** rate of **0.260-48** gallons of **VOC-containing material** per hour.
 - (2) One (1) CVJ shaft turning and spline facility (identified as EU-07), with a maximum **consumption throughput** rate of **1.844-26** gallons of **VOC-containing material** per hour.
 - (3) One (1) induction heat treatment facility (identified as EU-08), **which uses non VOC-containing material**, with a maximum **consumption throughput** rate of **22.0 0-45** gallons per hour.
 - (4) One (1) Parkerizing facility (identified as EU-09), with a maximum **consumption throughput** rate of **5.234-64** gallons per hour, and exhausting at stacks EP-29 and EP-30.
 - (5) One (1) electro-coating line (identified as EU-10), with a maximum **consumption throughput** rate of **1.784-22** gallons of coating per hour, and exhausting at stacks EP31 through 33.

These units were ~~constructed~~ **permitted** in 2004.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.1.1 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9, the Permittee shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator, for air dried or forced warm air dried coatings. Therefore, the electro-coating line and rust proofing facility shall each be limited to 3.5 pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

D.1.3 Volatile Organic Compounds (VOC)[326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer copies

of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

SECTION D.2 FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (c) Two (2) cold cleaner tanks (identified as EU-13), each with a storage capacity of 78 gallons and maximum solvent consumption of 0.50 gallons of ~~Safety-Kleen~~ per day. These units are used for **facility maintenance purposes** ~~degreasing metal inserts.~~
- (d) One (1) ~~degreaser cold cleaner~~ tank used in conjunction with the ~~Parkerizing~~ **Parkerizing** facility, with a storage capacity of 78 gallons and maximum solvent consumption of 1.39 gallons **of non VOC-containing material** per hour. ~~This unit is used for degreasing metal inserts.~~

These units were ~~constructed~~ **permitted** in 2004.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.2.2 Volatile Organic Compounds (VOC) [326 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) 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) 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.
 -
 - (5) Equip the degreaser with one (1) of the following control devices 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)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

SECTION D.3 FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (e) One (1) natural gas-fired boiler (identified as EU-11), with a maximum heat input capacity of ~~1.674.50~~ MMBtu per hour and exhausting at Stack A--EP-34.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.3.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (a) (Particulate Emission Limitations for Sources of Indirect Heating the PM emissions from the ~~1.674.50~~ MMBtu per hour natural gas-fired boiler (identified as EU-11) shall not exceed 0.60 pounds of particulate matter per million British thermal units heat input (lbs per MMBtu heat input).

SECTION D.4 FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (f) Natural gas-fired combustion units (identified as EU-12), with a total maximum heat input capacity of 11.0 MMBtu per hour.

- (g) **One (1) wastewater treatment facility (identified as EU-14).**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Comment 2:

The source indicated that the Parkerizing, Rust-proofing, and Electro-coating facilities each use more than five (5) gallons of coating per day. Therefore, they maybe subject to the provisions of 326 IAC 6-3(Particulate Emission Limitations for Manufacturing Processes).

Response to Comment 2:

Parkerizing and Rust-proofing facilities utilize dip vessels while electro-coating facility consists of electro-deposition process. According to 326 IAC 6-3-1(b)(5) (Particulate Emission Limitations for Manufacturing Processes Applicability), surface coating operations utilizing dip coating are exempt from the provisions of 326 IAC 6-3-2. Therefore, no change was made to the permit.

Comment 3:

The source requested the removal of Parkerizing facility from Section D.2 because this facility is not subject to the provisions of 326 IAC 8-3-2 (Cold cleaner operations) and 326 IAC 8-3-5(Cold cleaner operations and control). The degreaser tank used in conjunction with this facility contains an inorganic solid dissolved in water and consists of no volatile organic compounds (VOCs).

Response to Comment 3:

Since the degreaser tank used in conjunction with the Parkerizing facility does not consist of an organic solvent, this unit is not subject to the provisions of 326 IAC 8-3-2 (Cold cleaner operations) and 326 IAC 8-3-5(Cold cleaner operations and control). Therefore, the Parkerizing

facility (emission unit (d)) has been deleted from Section D.2 and included in Section D.4 as shown below.

SECTION D.2 FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (c) Two (2) cold cleaner tanks (identified as EU-13), each with a storage capacity of 78 gallons and maximum solvent consumption of 0.50 gallons of ~~Safety-Kleen~~ per day. These units are used for **facility maintenance purposes** ~~degreasing metal inserts.~~
- (d) ~~One (1) **degreaser** cold cleaner tank used in conjunction with the **P**parkerizing facility, with a storage capacity of 78 gallons and maximum solvent consumption of 1.39 gallons **of non VOC-containing material** per hour. This unit is used for degreasing metal inserts.~~

These units were ~~constructed~~ **permitted** in 2004.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.4 FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (d) ~~One (1) **degreaser** cold cleaner tank used in conjunction with the **P**parkerizing facility, with a storage capacity of 78 gallons and maximum solvent consumption of 1.39 gallons **of non VOC containing material** per hour. This unit is used for degreasing metal inserts.~~
- (f) Natural gas-fired combustion units (identified as EU-12), with a total maximum heat input capacity of 11.0 MMBtu per hour.
- (g) **One (1) wastewater treatment facility (identified as EU-14).**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Comment 4:

The source requested the following revisions and corrections to Appendix A:

1. Revision to page 5 of 9 and page 6 of 9 TSD, Appendix A to correct the actual hours of operation of the source from 8760 hours per year to 6000 hours per year, and correcting the maximum consumption rate in pounds per hour.
2. Revision to page 6 of 9 TSD, Appendix A to indicate that Adjustment Medicine E, which is a component of the electro-coating bath, contains 100 % glycol ethers.
3. Correction on Page 6 of 9 TSD, Appendix A to indicate for metal compounds, a conservative evaporation rate of 5 % instead of 100 % of the available compound.
4. Correction on Page 7 of 9 TSD, Appendix A to reflect that there is no Butyl acetate emissions associated with the material used in the degreaser unit.

Response to Comment 4:

Due to the change in the maximum consumption rates, the potential to emit of VOC was calculated by dividing the potential annual material consumption by the maximum operating hours (8760 hours) per year (see VOC Emissions, Appendix A, page 5 of 9). This resulted in 51.0 tons of VOC per year from the entire source. During review, the source requested that the maximum consumption rate be calculated based on typical work hours for the source, i.e. 6000 hours per year and extrapolated to annual basis. This resulted in an increase in the maximum consumption rates for the permitted facilities. Due to this increase, the potential to emit of VOC is now equal to 72.9 tons per year from the entire source (A revised calculation page is attached). Since the change in the maximum consumption rates does not amend the current permit status for this source, the source will operate under a minor source operating permit upon issuance.

Comment 5:

The source suggested some grammatical changes and corrections to typographical errors under Section B, C and D of the draft permit as shown in source comments Attachment A.

Response to Comment 5:

As requested by the source, IDEM, OAQ has incorporated the source suggestions as deemed necessary in Section B and C. Suggestions which were more preferential rather than grammatical or typographical errors were not included. Corrections to Section D.1 through D.4 are shown in Response to Comment 1.

B.7 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.
 - (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand-delivered to IDEM.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start-up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

B.8 Phase Construction Time Frame

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the IDEM may revoke this permit to construct if the:

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the ~~OAQ~~ Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days (this time frame is determined on a case-by-case basis but no more than ninety (90) days) after issuance of this permit, including the following information on each emissions unit:

. . . .

- (c) A copy of the PMP's shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ,. IDEM, OAQ, may require the Permittee to revise its PMP whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) To the extent the Permittee is required by 40 CFR Parts 60~~/and/or~~63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

C.9 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

Comment 6:

The source requested the following revisions and corrections to the TSD:

1. Revision to the facility description, item (a) through (g) under the New Emission Units and Pollution Control Equipment.
2. Revision to item (d) under the Federal Rule Applicability section to indicate that although the source is not subject to the requirements of 40 CFR Part 63, Subpart MMM because the PTE of HAPs are less than major source threshold levels, the coating usage may exceed 250 gallons per year.
3. Revision to item (c) under State Rule Applicability - Hub Ring Manufacturing and Shaft Manufacturing (326 IAC 6-3-2) to indicate that Parkerizing, Rust-proofing and Electro-coating facilities use more than five (5) gallons per day of coating.

Response to Comment 6:

No changes have been made to the TSD because the IDEM, OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

**Indiana Department of Environmental Management
Office of Air Quality**

**Technical Support Document (TSD) for a New Source Construction
and Minor Source Operating Permit**

Source Background and Description

Source Name:	NTK Precision Axle Corporation
Source Location:	741 County Road 200 West, Frankfort, Indiana 46041
County:	Clinton
SIC Code:	3714
Operation Permit No.:	023-18813-00038
Permit Reviewer:	ERG/SD

The Office of Air Quality (OAQ) has reviewed an application from the NTK Precision Axle Corporation relating to the construction and operation of a stationary automotive components manufacturing plant.

New Emission Units and Pollution Control Equipment

The source consists of the following emission units and pollution control devices receiving approval for construction and operation:

- (a) Hub ring manufacturing operations consisting of:
 - (1) Two (2) hub ring turning facilities (identified as EU-01 and EU-03), with a total maximum throughput rate of 1.05 gallons per hour.
 - (2) One (1) induction heat treatment facility (identified as EU-02), with a maximum throughput rate of 1.05 gallons per hour and exhausting at stacks EP-01 through 18.
 - (3) One (1) broaching facility (identified as EU-04), with a maximum throughput rate of 1.07 gallons per hour.
 - (4) One (1) rust proofing facility (identified as EU-05), with a maximum throughput rate of 4.00 gallons per hour.

- (b) Shaft manufacturing operations consisting of:
 - (1) One (1) sawing facility (identified as EU-06), with a maximum throughput rate of 0.18 gallons per hour.
 - (2) One (1) CVJ shaft turning and spline facility (identified as EU-07), with a maximum throughput rate of 1.26 gallons per hour.
 - (3) One (1) induction heat treatment facility (identified as EU-08), with a maximum throughput rate of 0.45 gallons per hour.

- (4) One (1) Parkerizing facility (identified as EU-09), with a maximum throughput rate of 1.61 gallons per hour, and exhausting at stacks EP-29 and 30.
- (5) One (1) electro-coating line (identified as EU-10), with a maximum throughput rate of 1.22 gallons of coating per hour, and exhausting at stacks EP31 through 33.
- (c) Two (2) cold cleaner tanks, each with a storage capacity of 78 gallons and maximum solvent consumption of 0.50 gallons of Safety-Kleen per day. These units are used for degreasing metal inserts.
- (d) One (1) cold cleaner tank used in conjunction with the parkerizing facility, with a storage capacity of 78 gallons and maximum solvent consumption of 1.39 gallons per hour. This unit is used for degreasing metal inserts.
- (e) One (1) natural gas-fired boiler (identified as EU-11), with a maximum heat input capacity of 1.50 MMBtu per hour and exhausting at Stack EP-34.
- (f) Natural gas-fired combustion units (identified as EU-12), with a total maximum heat input capacity of 11.0 MMBtu per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

Existing Approvals

The source has no previous approvals.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and 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 March 15, 2004.

Emission Calculations

See Appendix A of this document for detailed emission calculations (Appendix A, pages 1 through 9).

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/year)
PM	1.92
PM10	1.92
SO ₂	0.03
VOC	51.0
CO	4.60
NO _x	5.48

HAPs	Potential to Emit (tons/year)
Magnese Compounds	5.00
Butyl Acetate	1.86
Glycol Ether	2.19
Hydrofluoric Acid	0.02
Nickel Compounds	0.10
Total	9.16

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all pollutants are less than 100 tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC is greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is less than twenty-five (25) tons per year.
- (c) Fugitive Emissions
 Since this type of operation is not in 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 applicability.

County Attainment Status

The source is located in Clinton County.

Pollutant	Status
PM10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Clinton County has been designated as attainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Clinton County has been classified as attainment for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

- (c) **Fugitive Emissions**
Since this type of operation is not in one of the 28 listed source categories under 326 IAC 2-2 and 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 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	1.92
PM10	1.92
SO ₂	0.03
VOC	51.0
CO	4.60
NO _x	5.48
Single HAP	5.00
Combination HAPs	9.16

- (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 and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (b) These emissions are based on the potential to emit calculations for the source as shown in Appendix A.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source 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 is the first air approval issued to this source.

Federal Rule Applicability

- (a) The requirements of the New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR 60, Subpart Dc) are not applicable to the natural gas-fired boiler because the 1.50 MMBtu per hour boiler, although constructed after the applicability date of June 9, 1989, has a maximum heat input capacity of less than 10 MMBtu per hour.
- (b) The three (3) 78 gallon bulk organic storage tanks are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb) because each of their capacities are less than 40 cubic meters (10,567 gallons).

There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

- (c) The degreasing operations are not subject to 40 CFR 63, Subpart T - National Emission Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning (326 IAC 14) because only non-halogenated solvents are used for these operations.
- (d) This source is not subject to 40 CFR 63, Subpart M - National Emission Standards for Hazardous Air Pollutants for Miscellaneous Metal Parts and Products because this source does not use more than 250 gallons of coating per year and is not a major source of hazardous air pollutants (HAPs)
- (e) This source is not subject to the requirements of 40 CFR Part 63 Subpart S (National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil) because the source does not perform any metal coil coating operation.
- (f) This source is not subject to 40 CFR 63, Subpart N - National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (326 IAC 14) because the source does not do chromium electroplating and does not have chrome anodizing tanks.

There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) 326 IAC 14 and 40 CFR 63 applicable to this source.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The source will be constructed in 2004. This source is not in 1 of 28 source categories and the potential to emit of all criteria pollutants is less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

326 IAC 2-4.1 (New Sources of Hazardous Air Pollutants (HAP))

The operation of this stationary automotive components manufacturing plant will emit less than 10 tons year of a single HAP and less than 25 tons per year for any combination HAPs. Therefore, 326 IAC 2-4.1 does not apply.

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 forty percent (40%) 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 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting) because the potential to emit of VOC is less than 100 tons per year, and it is not located in Lake or Porter counties. It is located in Clinton County.

State Rule Applicability - Hub Ring Manufacturing, Shaft Manufacturing

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

- (a) The hub ring turning, broaching, induction heat treatment, and rust proofing facilities are not subject to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing

Processes) because each of these facilities utilizes a wet turning and broaching process using water-based coolants and oil-based lubricants.

- (b) The sawing, CVJ shaft turning and spline facilities are not subject to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because each of these facilities use wet cutting and wet turning process using water-based coolants and oil-based lubricants.
- (c) The parkerizing, rust proofing, and electro-coating facilities are not subject to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because each of these facilities use less than five (5) gallons of coating per day.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

- (a) Although constructed after January 1, 1980, the hub ring turning, broaching, induction heat treatment, and rust proofing facilities are not subject to the provisions of 326 IAC 8-1-6 because each of these facilities have potential VOC emissions less than 25 tons per year.
- (b) Although constructed after January 1, 1980, the CVJ shaft turning and spline, parkerizing and electro-coating facilities are not subject to the provisions of 326 IAC 8-1-6 because each these facilities have potential VOC emissions less than 25 tons per year.

326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)

This source is not subject to 326 IAC 8-2-2 because the source does not surface coat automobile and light duty truck bodies. It coats automotive components such as hub outer rings used in wheel bearing assemblies and shafts used for constant velocity joints (CVJs).

326 IAC 8-2-9 (Miscellaneous Metal Coating)

- (a) The electro-coating line and rust proofing facility is subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating) because the actual emissions of VOC from each facility is greater than fifteen (15) pounds per day and the source's Standard Industrial Classification Code is one of the listed codes in this rule.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the Permittee shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5) pounds of VOCs per gallon of coating excluding water, as delivered to the applicator, for air dried or forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the electro-coating line and rust proofing facilities are in compliance with this requirement.

- (b) The one (1) parkerizing facility using manganese phosphatizing is not subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coatings) because there are no VOC emissions from this unit.

State Rule Applicability - Degreasing

326 IAC 8-3 (Organic Solvent Degreasing Operation)

The degreasing operations are subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations) and of 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control) because the degreasers were constructed after January 1, 1980.

- (a) Pursuant to 326 IAC 8-3-2, the Permittee shall:
- (1) Equip the cleaner with a cover;
 - (2) Equip the cleaner with a facility for draining cleaned parts;
 - (3) Close the degreaser cover whenever the parts are not being handled in the cleaner;
 - (4) Drain cleaned parts for at least fifteen (15) second or until dripping ceases;
 - (5) Provide a permanent, conspicuous label summarizing the operation requirements;
 - (6) 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.
- (b) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) 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));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) 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.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure, which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices 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)), or if the solvent is heated to a temperature greater than forty-eight and nine-

tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (c) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee 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.

State Rule Applicability - One (1) Natural Gas Fired Boiler

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4 (Emission Limitations for Sources of Indirect Heating), the particulate emissions limitation from the 1.50 MMBtu per hour heat input boiler is calculated to be 0.98 pounds per MMBtu heat input. This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million Btu (pound per MMBtu) heat input;
Q = total source maximum heat input capacity (MMBtu per hour)

However, for boilers with Q less than 10.0 MMBtu per hour, the pounds of particulate matter emitted per million Btu heat input shall not exceed 0.60 pounds per MMBtu. Therefore the 1.50 MMBtu per hour boiler shall not exceed 0.60 pounds of PM per MMBtu heat input.

State Rule Applicability - Cold Cleaner Storage Tanks

326 IAC 8-9-1 (Volatile Organic Liquid Storage Vessels)

This source is not subject to the requirements of 326 IAC 8-9-1 (Volatile Organic Storage Vessels) because this source is not in any of the listed counties.

State Rule Applicability - Natural Gas-Fired Comfort Units

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

The natural gas-fired comfort units are not subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because particulate emissions from these units are from combustion only.

Conclusion

The construction and operation of this stationary automotive components manufacturing plant shall be subject to the conditions of the New Source Construction and Minor Source Operating Permit 023-18813-00038.

**Appendix A: Emission Calculations
Natural Gas Combustion Only
Boiler (identified as EU 11)**

Company Name: NTK Precision Axle Corporation
Address: 741 County Road, 200 West, Frankfort, Indiana 46401
Permit: 023-18813
Plt ID: 023-00038
Reviewer: ERG/SD
Date: March 29, 2004

Total Heat Input Capacity
MMBtu/hour

1.50

Potential Throughput
MMCF/year

13.1

	Pollutant					
	* PM	* PM10	SO ₂	** NO _x	VOC	CO
Emission Factor (lb/MMCF)	7.60	7.60	0.60	100	5.50	84.0
Potential To Emit (tons/year)	0.05	0.05	0.00	0.66	0.04	0.55

* PM and PM10 emission factors are filterable and condensable PM and PM10 combined.

** Emission factor for NO_x: Uncontrolled = 100 lb/MMCF.

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (July, 1998).

METHODOLOGY

Potential Throughput (MMCF/year) = Heat Input Capacity (MMBtu/hour) * 8760 hours/year * 1 MMCF/1000 MMBtu

Potential To Emit (tons/year) = Potential Throughput (MMCF/year) * Emission Factor (lb/MMCF) * 1 ton/2000 lbs

See next page for HAPs emissions calculations.

Appendix A: Emission Calculations
Natural Gas Combustion Only
Boiler (identified as EU 11)

Company Name: NTK Precision Axle Corporation
Address: 741 County Road, 200 West, Frankfort, Indiana 46401
Permit: 023-18813
Plt ID: 023-00038
Reviewer: ERG/SD
Date: March 29, 2004

HAPs - Organics

Emission Factor (lb/MMCF)	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential To Emit (tons/year)	1.38E-05	7.88E-06	4.93E-04	1.18E-02	2.23E-05

HAPs - Metals

Emission Factor (lb/MMCF)	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential To Emit (tons/year)	3.29E-06	7.23E-06	9.20E-06	2.50E-06	1.38E-05

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors as provided above are from AP-42, Chapter 1.4, Table 1-4.2, 1.4-3 and 1.4-4 (July, 1998). Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations
Natural Gas Combustion Only
Comfort Units (Identified as EU 12)**

Company Name: NTK Precision Axle Corporation
Address: 741 County Road, 200 West, Frankfort, Indiana 46401
Permit: 023-18813
Plt ID: 023-00038
Reviewer: ERG/SD
Date: March 29, 2004

Total Heat Input Capacity
MMBtu/hour

Potential Throughput
MMCF/year

11.0

96.4

	Pollutant					
Emission Factor (lb/MMCF)	* PM	* PM10	SO ₂	** NO _x	VOC	CO
Potential To Emit (tons/year)	7.6	7.6	0.6	100	5.5	84.0
	0.37	0.37	0.03	4.82	0.26	4.05

*PM and PM10 emission factors are filterable and condensable PM and PM10 combined.

**Emission factor for NO_x: Uncontrolled = 100 lb/MMCF.

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (July, 1998).

METHODOLOGY

Potential Throughput (MMCF/year) = Heat Input Capacity (MMBtu/hour) * 8760 hours/year * 1 MMCF/1000 MMBtu

Potential To Emit (tons/year) = Potential Throughput (MMCF/year) * Emission Factor (lb/MMCF) * 1 ton/2000 lbs

See next page for HAPs emissions calculations.

Appendix A: Emission Calculations
Natural Gas Combustion Only
Comfort Units (Identified as EU 12)

Company Name: NTK Precision Axle Corporation
Address: 741 County Road, 200 West, Frankfort, Indiana 46401
Permit: 023-18813
Plt ID: 023-00038
Reviewer: ERG/SD
Date: March 29, 2004

HAPs - Organics

Emission Factor (lb/MMCF)	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential To Emit (tons/year)	1.01E-04	5.78E-05	3.61E-03	8.67E-02	1.64E-04

HAPs - Metals

Emission Factor (lb/MMCF)	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential To Emit (tons/year)	2.41E-05	5.30E-05	6.75E-05	1.83E-05	1.01E-04

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors as provided above are from AP-42, Chapter 1.4, Table 1-4.2, 1.4-3 and 1.4-4 (July, 1998). Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
VOC Emissions

Company Name: NTK Precision Axle Corporation
Address: 741 County Road, 200 West, Frankfort, Indiana 46401
Permit: 023-18813
Plt ID: 023-00038
Reviewer: ERG/SD
Date: March 29, 2004

Operation	Emission Unit ID	Material Used	Density (lb/gal)	Max. Usage (gal/hour)	Max. Usage (gal/hour)	Max. Usage (lbs/hour)	Max. Usage (lbs/hour)	Weight % VOC	PTE of VOC (lb/hour)	PTE of VOC (lb/hour)	PTE of VOC (tons/year)	PTE of VOC (tons/year)	Actual VOC Emissions (lb/day)
Hub Ring Turning	EU01, EU03	Ecocool S 725	8.31	1.05	1.53	8.71	12.7	38.5%	3.35	4.89	14.7	21.4	80.4
Broaching	EU-04	Ecocut 110	7.51	1.07	1.56	8.02	11.7	3.20%	0.26	0.37	1.12	1.6	6.16
Induction Heat Treatment	EU-02	Renoclean 2762	8.84	0.45	0.66	4.00	5.83	18.1%	0.72	1.06	3.17	4.6	37.6
		Daphane Plastic Quench RP-U	8.88	1.05	1.54	9.37	13.7	9.00%	0.84	1.23	3.69	5.4	37.6
Rustproofing	EU-05	Not Provided	8.34	0.81	1.19	6.78	9.90	42.0%	2.85	4.15	12.5	18.2	68.3
Sawing	EU-06	Ecocool S 725	8.31	0.18	0.26	1.49	2.18	38.5%	0.57	0.84	2.52	3.7	13.8
CVJ Shaft Turning and Spline	EU-07	Ecocool S 725	8.31	0.51	0.75	4.25	6.20	38.5%	1.64	2.39	7.16	10.5	43.4
		Spline Rotolube	7.25	0.75	1.09	5.43	7.93	3.20%	0.17	0.25	0.76	1.1	43.4
Parkerizing	EU-09	Parco Cleaner 2053	7.39	1.39	2.03	10.3	15.0	0.00%	0.00	0.00	0.00	0.0	
		Fixodine M	NA	NA	NA	0.46	0.67	0.00%	0.00	0.00	0.00	0.0	
		Parco Lubrite	10.4	2.19	3.20	22.83	33.33	0.00%	0.00	0.00	0.00	0.0	
Electro-coating	EU-10	Kako Cleaner KC 850	8.58	0.14	0.20	1.18	1.72	8.00%	0.09	0.14	0.41	0.6	
		Globrite 749 ADD (Solid)	NA	NA	NA	0.12	0.18	0.00%	0.00	0.00	0.00	0.0	
		Globrite 5006 ZP	11.3	0.03	0.04	0.34	0.50	0.00%	0.00	0.00	0.00	0.0	
		Globrite 745 ADD	10.6	0.02	0.03	0.18	0.26	0.00%	0.00	0.00	0.00	0.0	
		KG400-F1	11.0	0.60	0.88	6.60	9.63	5.00%	0.33	0.48	1.45	2.1	
		KG400-F2	8.50	0.40	0.58	3.39	4.95	5.00%	0.17	0.25	0.74	1.1	
		20% Acetic Acid (ED Additive)	8.67	0.00	0.00	0.00	0.01	25.00%	0.00	0.00	0.00	0.0	
Adjustment Medicine E	7.51	0.02	0.03	0.15	0.22	100%	0.15	0.22	0.66	1.0			
Geo-Guard 4008	9.00	0.02	0.02	0.15	0.22	5.00%	0.01	0.01	0.03	0.0		18.1	
TOTAL									11.2	16.3	48.9	71.3	

Note: There are no particulate emissions from the above operations.

METHODOLOGY

PTE of VOC (lbs/hour) = Density (lb/gal) * Max. Usage Rate (gal/hour) * Weight % VOC

PTE of VOC (tons/year) = Density (lb/gal) * Max. Usage Rate (gal/hour) * Weight % VOC * 8760 hours/year * 1 ton/2000 lbs

Actual VOC Emissions (lbs/day) = PTE (lbs/hour) * 8760 hours/year * 1 year/365 days of operation

**Appendix A: Emissions Calculations
HAP Emissions**

Company Name: NTK Precision Axle Corporation
Address: 741 County Road, 200 West, Frankfort, Indiana 46401
Permit: 023-18813
Plt ID: 023-00038
Reviewer: ERG/SD
Date: March 29, 2004

Operation	Emission Unit ID	Material Used	Density (lb/gal)	Max. Usage (gal/hour)	Weight % Gylcol Ether	Weight % Hydrofluoric Acid	Weight % Manganese Compounds	Weight % Nickel Compounds	PTE of Glycol Ether (tons/year)	PTE of Hydrofluoric Acid (tons/year)	PTE of Mg Compounds (tons/year)	PTE of Ni Compounds (tons/year)	
Hub Ring Turning	EU01, EU03	Ecocool S 725	8.31	1.05					0.00	0.00	0.00	0.00	
Broaching	EU-04	Ecocut 110	7.51	1.068					0.00	0.00	0.00	0.00	
Induction Heat Treatment	EU-02	Renoclean 2762	8.84	0.452					0.00	0.00	0.00	0.00	
		Daphane Plastic Quench RP-U	8.88	1.055					0.00	0.00	0.00	0.00	
Rustproofing	EU-05	Not Provided	8.34	0.813					0.00	0.00	0.00	0.00	
Sawing	EU-06	Ecocool S 725	8.31	0.180					0.00	0.00	0.00	0.00	
CVJ Shaft Turning and Spline	EU-07	Ecocool S 725	8.31	0.511					0.00	0.00	0.00	0.00	
		Spline Rotolube	7.25	0.749					0.00	0.00	0.00	0.00	
Parkerizing	EU-09	Parco Cleaner 2053	7.39	1.390					0.00	0.00	0.00	0.00	
		* Fixodine M					50.0%		0.00	0.00	1.00	0.00	
		Parco Lubrite	10.4	0.22			40.0%	1.00%	0.00	0.00	4.00	0.10	
Electro-coating	EU-10	Kako Cleaner KC 850	8.58	0.137					0.00	0.00	0.00	0.00	
		Globrite 749 ADD (Solid)	0.00	0.000					0.00	0.00	0.00	0.00	
		Globrite 5006 ZP	11.3	0.030			1.00%			0.00	0.02	0.00	0.00
		Globrite 745 ADD	10.6	0.017						0.00	0.00	0.00	0.00
		KG400-F1	11.0	0.599	5.00%					1.45	0.00	0.00	0.00
		KG400-F2	8.50	0.399	5.00%					0.74	0.00	0.00	0.00
		20% Acetic Acid (ED Additive)	8.67	0.000						0.00	0.00	0.00	0.00
		Adjustment Medicine E	7.51	0.020						0.00	0.00	0.00	0.00
Geo-Guard 4008	9.00	0.017						0.00	0.00	0.00	0.00		
									2.19	0.02	5.00	0.10	

* Fixodine M was calculated using the Max. usage rate in lbs/hour from page 5 of 8 TSD, Appendix A.

Single Highest HAP (tons/year) = 5.00
Combination of HAPs (tons/year) = 7.30

METHODOLOGY

PTE of HAP (tons/year) = Density (lb/gal) * Max. Usage Rate (gal/hour) * Weight % HAP * 8760 hours/year * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Degreasing: Two (2) Cold Cleaners

Company Name: NTK Precision Axle Corporation
Address: 741 County Road, 200 West, Frankfort, Indiana 46401
Permit: 023-18813
Plt ID: 023-00038
Reviewer: ERG/SD
Date: March 29, 2004

Emission Unit ID	Material	Density (lb/gal)	Solvent Consumption (gal/day)	PTE of VOC/Butyl Acetate (tons/year)
(2 Units total) EU-13	Safety Kleen	6.80	0.50	1.86
Total				1.86

METHODOLOGY

PTE of HAP (tons/year) = Density (lb/gal) * Solvent Consumption (gal/day) * 1 day/24 hours * 8760 hours/year * 1 ton/2000 lbs * 3 units

**Appendix A: Emissions Calculations
Summary**

Company Name: NTK Precision Axle Corporation
Address: 741 County Road, 200 West, Frankfort, Indiana 46401
Permit: 023-18813
Plt ID: 023-00038
Reviewer: ERG/SD
Date: March 29, 2004

POTENTIAL TO EMIT OF CRITERIA POLLUTANTS IN TONS PER YEAR

Emission Units	PM	PM10	SO₂	NO_x	VOC	CO
Boiler	0.05	0.05	0.00	0.66	0.04	0.55
Combustion Units	0.37	0.37	0.03	4.82	0.26	4.05
Hub Ring Turning					14.7	
Broaching					1.12	
Induction Heat Treatment					6.86	
Rustproofing					12.5	
Sawing					2.5	
CVJ Shaft Turning and Spline					7.92	
Parkerizing					0.00	
Electro-coating					3.30	
Degreasers					1.86	
* Paved and Unpaved Roads	1.50	1.50				
TOTAL	1.92	1.92	0.03	5.48	51.0	4.60

* PTE of PM/PM10 from paved and unpaved roads was taken from the Emission Calculations submitted by the source in their permit calculation

Single Highest HAP in tons per year (Mg Compounds) = 5.00
Combination of HAPs in tons per year = 9.16

**Appendix A: Emissions Calculations
Compliance Estimation**

Company Name: NTK Precision Axle Corporation
Address: 741 County Road, 200 West, Frankfort, Indiana 46401
Permit: 023-18813
Plt ID: 023-00038
Reviewer: ERG/SD
Date: March 29, 2004

Compliance with 326 IAC 8-2-9 (Miscellaneous Metal Coating) for Electrocoating Facility

Coating Component	Mixture Gallons/Tank	Mixture Percentage	Density (lbs/gal)	Pounds Material	Weight % Volatile (Organics + H ₂ O)	Weight % Water	Volume % Water	% Weight Organics (minus water)	VOC lbs per gallon (as applied)
KG400 F-1 (Paste)	0.20	1.22%	11.0	2.19	5.0%	0.0%	0.0%	5.0%	0.55
KG400 F-2 (Liquid)	9.45	41.6%	7.91	74.7	5.0%	0.0%	0.0%	5.0%	0.40
20% Acetic Acid (ED Additive)	0.005	0.02%	8.67	0.04	25.0%	0.0%	0.0%	25.0%	2.17
Adjustment Medicine E	0.60	2.52%	7.51	4.53	100%	0.0%	0.0%	100%	7.51
Water	11.79	54.7%	8.34	98.3	100%	100%	100%	0.0%	0.00
As Applied:	22.0	100%	8.17	180	59.3%	54.7%	53.5%	4.7%	0.82

Allowable as per 326 IAC 8-2-9:

3.50

Notes:

- 1/ Calculations are based on mixing ratios as provided by NTK personnel. Production Information is from manufacturer's specification sheet.
- 2/ Proposed tank capacity is 81.92 liters, or approximately 22 gallons.
- 3/ Facility must comply with VOC lb/gallon, less water and exempt compounds, coating requirements.

METHODOLOGY

Pounds of VOC per gallon coating less Water (as applied)= Density (lb/gal) * Weight % Organics * 1/ (1-Volume % Water)