INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: November 19, 2013

RE: NSK Corporation / 081-33541-00023

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

If you have technical questions regarding the enclosed documents, please contact the 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-AM.dot 6/13/2013

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov
Michael R. Pence
Governor
Thomas W. Easterly
Commissioner

Mr. Kevin Dodds
NSK Corporation
3400 Bearing Drive
Franklin, IN 46131

November 19, 2013

Re: 081-33541-00023
First Administrative Amendment to
F081-28776-00023

Dear Mr. Dodds:

NSK Corporation was issued a Federally Enforceable State Operating Permit (FESOP) No. F081-28776-00023 on July 29, 2010 for a stationary hub bearing and ball screw manufacturing plant located at 3400 Bearing Drive, Franklin. On August 16, 2013, the Office of Air Quality (OAQ) received an application from the source requesting to add new emission units that are of the same type to existing emission units. The attached Technical Support Document (TSD) provides additional explanation of the changes to the permit. Pursuant to 326 IAC 2-8-10(a)(10), this change to the permit is considered an administrative amendment because the permit is amended to incorporate a modification that adds an emissions unit of the same type that are already permitted and that will comply with the same applicable requirements and permit terms and conditions as the existing emission unit. Pursuant to the provisions of 326 IAC 2-8-10, an administrative amendment to this permit is hereby approved as described in the attached Technical Support Document (TSD).

All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Bruce Farrar of my staff at 317-234-5401 or 1-800-451-6027, and ask for extension 4-5401.

Sincerely,

Tripurari Sinha

Tripurari P. Sinha, Ph. D., Section Chief
Permits Branch
Office of Air Quality

Attachments: Technical Support Document and revised permit

TS/bf

cc: File - Johnson County
Johnson County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

New Source Construction and Federally Enforceable State Operating Permit OFFICE OF AIR QUALITY

NSK Corporation - Franklin Campus
3400 Bearing Drive and 3450 Bearing Drive
Franklin, Indiana 46131

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-8-11.1, applicable to those conditions.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F081-28776-00023	
Original Signed by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: July 29, 2010 Expiration Date: July 29, 2015

First Significant Permit Revision No.: 081 30120 00023, issued on August 23, 2011.

First Administrative Amendment No.: 081-33541-00023	
Issued by: Tripurari P. Sinha Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: November 19, 2013 Expiration Date: July 29, 2015

TABLE OF CONTENTS

[326 IAC 20-1] [40 CFR 63, Subpart A]

E.1.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Compression Ignition Internal Combustion Engines [40 CFR 63, Subpart ZZZZ]

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 through A.3 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 2-8-3(b)]

The Permittee owns and operates a stationary hub bearing and ball screw manufacturing plant.

Source Address(es):	3400 Bearing Drive, Franklin, IN 46131; and 3450 Bearing Drive, Franklin, IN 46131
General Source Phone Number:	(317) 738-5000
SIC Code:	3562 (Ball and Roller Bearings)
County Location:	Johnson
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD, Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

NSK Corporation Hub Plant

(a) One (1) Grinding Operation, identified as G1 Grinding, consisting of:

(1) Three (3) wet grinding machines, identified as EU-G1-01 through EU-G1-03, constructed in 1989 through 1994, respectively, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(2) Three (3) wet grinding machines, identified as EU-G1-04 through EU-G1-06, constructed in 1989 through 2010, respectively, utilizing no control devices, and exhausting within the building.

(3) Three (3) wet grinding machines, identified as EU-G1-08 through EU-G1-10, approved for construction in 2013, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(b) One (1) Grinding Operation, identified as G2 Grinding, consisting of forty-two (42) wet grinding machines, divided into three sections HUB I, HUB II, and HUB III, with emission units identified as EU-G2-01 through EU-G2-08, and EU-G2-10 through EU-G2-18, EU-G2-21, EU-G2-22, EU-G2-24, EU-G2-25, EU-G2-30 through EU-G2-41 and EU-G2-43 constructed in 1990 through 2010, utilizing Aerostokes mist eliminators for particulate control, and exhausting through vents EP-17 or EP-18.

(c) One (1) Grinding Operation, identified as New Concept Grinding, constructed in 2009, consisting of twenty-four (24) wet grinding machines, identified as EU-NCG-01 through EU-NCG-08, and EU-NCG-10 through EU-NCG-25, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(d) One (1) grinding operation, identified as Taper Roller Grinding, consisting of the following:

(1) eight (8) wet grinding machines, constructed in 2009, identified as EU-TRG-01 through EU-TRG-08, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building**;**

(2) Two (2) taper roller grinders, identified as EU-TRG-09 and EU-TRG-13, constructed in 2011, utilizing Exhaust Fan EF-19 for control, exhausting through Vent EP-18;

(3) Six (6) taper roller grinders, identified as EU-TRG-10, EU-TRG-11, EU-TRG-12, and EU-TRG-14 through EU-TRG-16, constructed in 2011, utilizing Clark Air #8 Mist Eliminators for control, exhausting within the building.

(4) Eight (8) taper roller grinders, identified as EU-TRG-17 through EU-TRG-24, approved for construction in 2013, utilizing Exhaust Fan EF-19 for control (for EU-TRG-17), exhausting through vent EP-19, Clark Air #8 Mist Eliminators for control (for EU-TRG-18 through EU-TRG-20), exhausting within the building, and Clark Air #9 Mist Eliminators for control (for EU-TRG-21 through EU-TRG-24), exhausting within the building.

(e) One (1) superfinish operation, identified as Superfinish G2, constructed in 1990 through 2010, consisting of twenty-five (25) wet machining units, identified as EU-SFG2-01 through EU-SFG2-04, EU-SFG2-07, EU-SFG2-09 through EU-SFG2-12, EU-SFG2-14 through EU-SFG2-16, EU-SFG2-18, EU-SFG2-21, EU-SFG2-24**,** EU-SFG2-25, and EU-SFG2-27 through EU-SFG2-31, utilizing Aerostokes mist eliminators for particulate control, exhausting through vents EP-17 or EP-18.

(f) One (1) superfinish operation, identified as Superfinish New Concept, consisting of sixteen (16) wet machining units, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building:

(1) fourteen (14) wet machining units, identified as EU-SFNC-01 through EU-SFNC-03, constructed in 1990 through 2010 and EU-SFNC-05 through EU-SFNC-15, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(2) Two (2) wet machining units, identified as EU-SFNC-16 and EU-SFNC-17, approved for construction in 2013, utilizing Clark Air Unit #1 and #2, respectively, mist eliminators for particulate control, and exhausting within the building.

(g) One (1) superfinish operation, identified as Superfinish Taper Roller, consisting of the following:

(1) three (3) wet machining units, constructed in 2009, identified as EU-SFTR-01 through EU-SFTR-03, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building**;**

(2) Taper roller superfinish operation as follows:

(A) One (1) taper roller superfinish grinder, identified as EU-SFTR-04, constructed in 2011, utilizing Clark Air #9 Mist eliminators for particulate control, and exhausting within the building;

(B) Two (2) taper roller superfinish grinders, identified as EU-SFTR-06 and EU-SFTR-08, constructed in 2011, utilizing Clark Air #8 Mist eliminators for particulate control, and exhausting within the building;

(C) Two (2) taper roller superfinish grinders, identified as EU-SFTR-05 and EU-SFTR-07, constructed in 2011, utilizing Exhaust Fan EF-19 for control, exhausting through Vent EP-18.

(D) Four (4) taper roller superfinish grinders, identified as EU-SFTR-09 through EU-SFTR-12, approved for construction in 2013 utilizing Exhaust Fan EF-19 for control (EU-SFTR-09 and EU-SFTR-11), exhausting through Vent EP-18, EU-SFTR-10 , utilizing Clark Air #8 Mist eliminators for particulate control, and exhausting within the building, and EU-SFTR-12 , utilizing Clark Air #9 Mist eliminators for particulate control, and exhausting within the building.

(h) One (1) hard turning process, identified as FS-4 Turning, consisting of five (5) wet machining units, identified as EU-HTFS-01 through EU-HTFS-05, constructed in 2002 through 2010, utilizing no control devices, and exhausting within the building.

(i) One (1) hard turning process, identified as LU300 Turning, consisting of six (6) wet machining units, identified as EU-HTLU-01 through EU-HTLU-06, constructed in 2002 through 2010, utilizing no control devices, and exhausting within the building.

(j) One (1) broaching process, identified as Broaching, consisting of one (1) wet broaching units, identified as EU-BR-01, constructed in 2002, utilizing no control devices, and exhausting within the building.

(k) One (1) painting process, identified as Painting, consisting of:

(1) Five (5) paint lines, identified as EU-PNT-01 through EU-PNT-05, constructed in 2009, utilizing Clark Air Unit mist eliminators as particulate control, and exhausting within the building.

(2) Three (3) paint lines, identified as EU-PNT-08 through EU-PNT-10, constructed in 1990 through 2010, utilizing no control devices, and exhausting within the building.

(3) One (1) paint line, identified as EU-PNT-11, approved for construction in 2013, Clark Air Unit #9 mist eliminator for particulate control, and exhausting within the building.

(l) One (1) rust preventative application operation, identified as Hub I – Assembly Rust Preventative, constructed in 1990 through 2001, consisting of three (3) coating lines, identified as EU-H1RP-01 through EU-H1RP-03, utilizing no control devices, and exhausting within the building.

(m) One (1) rust preventative application operation, identified as Hub III – Assembly / New Concept Rust Preventative, constructed in 1995 through 2010, consisting of nine (9) coating lines, identified as EU-H3/NCRP-01 through EU-H3/NCRP-09, utilizing Clark Air Unit mist eliminators as particulate control, and exhausting within the building.

(n) One (1) rust preventative application operation, identified as Taper Roller Rust Preventative, consisting of the following:

(1) one (1) coating line, constructed in 1990, identified as EU-TRRP-01, utilizing a

Clark Air Unit #8 mist eliminator as particulate control, and exhausting within the building**;**

(2) two (2) coating lines, constructed in 2011, identified as EU-TRRP-02 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18, and EU-TRRP-03, utilizing Clark Air Unit #9 mist eliminator for control, and exhausting within the building.

(3) two (2) coating lines, approved for construction in 2013, identified as EU-TRRP-04 and EU-TRRP-05 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18.

(o) Conveyorized Degreasers including:

(1) One (1) superfinish wash operation conveyorized degreasing operation, consisting of the following:

(A) conveyorized degreasing operation, identified as Superfinish Wash, constructed in 1990 through 2010, consisting of twenty-two (22) conveyorized degreasing units, identified as EU-SFW-01 through EU-SFW-04, EU-SFW-08 through EU-SFW-11, EU-SFW-13 through EU-SFW-16, EU-SFW-18, EU-SFW-21, EU-SFW-22, EU-SFW-24, EU-SFW-25, and EU-SFW-27 through EU-SFW-31, utilizing no control device, and exhausting within the building**;**

(B) conveyorized degreasing operation, consisting of eight (8) conveyorized degreasing units, constructed in 2011, identified as EU-SFW-32 through EU-SFW-39, utilizing no control device, and exhausting within the building.

(2) One (1) parts wash conveyorized degreasing process, including three operations identified as Parts Wash, Rough Wash, and Finish Wash, consisting of the following:

(A) conveyorized degreasing process, constructed in 1990 through 2008, collectively consisting of thirty-six (36) conveyorized degreasing units, identified as EU-PW-01 through EU-PW-04, EU-PW-06 through EU-PW-08, EU-PW-15 through EU-PW-20, EU-PW-22 through EU-PW-27, EU-PW-30 through EU-PW-35, EU-PW-37, EU-PW-39 through EU-PW-41, EU-PW-43, and EU-PW-44, utilizing Clark Air Units #8 mist eliminators as control, and exhausting within the building**;**

(B) three (3) conveyorized degreasing units, constructed in 2011, identified as EU-PW-47 and EU-PW-48, utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18, and unit EU-PW-49, utilizing Clark Air Unit #9 mist eliminators for control, and exhausting within the building.

(C) Six (6) conveyorized degreasing units, approved for construction in 2013, identified as EU-PW-50 through EU-PW-55, utilizing Clark Air Units #4 (EU-PW-52) mist eliminators, Clark Air Units #6 (EU-PW-51), Clark Air Units #8 (EU-PW-50), Clark Air Units #9 (EU-PW-53 and EU-PW-54) as control, and exhausting within the building, and EU-PW-55 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18.

(3) One (1) ball wash conveyorized degreasing process, identified as Ball Wash,

constructed in 2001 and 1993, consisting of two (2) conveyorized degreasing units, identified as EU-BW-01 and EU-BW-03, utilizing no control device, and exhausting within the building.

(p) Miscellaneous process tanks including:

(1) One (1) finish wash tank, identified as EU-Tank-02, constructed in 1992, with a maximum capacity of 7,500 gallons, containing 95% kerosene and 5% additive, supplying the Finish Wash conveyorized degreasing units, and exhausting through vent EP-2.

(2) One (1) ball wash tank, identified as EU-Tank-03, constructed in 1992, with a maximum capacity of 4,000 gallons, containing 95% kerosene and 5% additive, supplying the Ball Wash conveyorized degreasing units, and exhausting through vent EP-3.

(3) One (1) rough wash tank, identified as EU-Tank-04, constructed in 1992, with a maximum capacity of 7,500 gallons, containing 95% kerosene and 5% additive, supplying the Rough Wash conveyorized degreasing units, and exhausting through vent EP-4.

(4) One (1) parts wash tank, identified as EU-Tank-06, constructed in 1992, with a maximum capacity of 7,500 gallons, containing 95% kerosene and 5% additive, supplying the Parts Wash conveyorized degreasing units, and exhausting through vent EP-6.

(5) One (1) superfinish oil tank, identified as EU-Tank-07, constructed in 1992, with a maximum capacity of 4,000 gallons, containing Superfinish G2, Superfinish New Concept, and Superfinish Taper Roller dirty oil, and exhausting through vent EP-7.

(6) One (1) superfinish oil tank, identified as EU-Tank-08, constructed in 1992, with a maximum capacity of 3,000 gallons, containing Superfinish G2, Superfinish New Concept, and Superfinish Taper Roller clean oil, and exhausting through vent EP-8.

(7) One (1) super finish wash tank, identified as EU-Tank 10, constructed in 1992, with a maximum capacity of 2,500 gallons of superfinish wash fluid, supplying the Super Finish Wash conveyorized degreasing units, and an exhausting through vent EP-10.

(8) One (1) coolant tank, identified as EU-Tank-12, constructed in 1992, with a maximum capacity of 6,500 gallons, containing G2 Grinding, New Concept Grinding, and Taper Roller Grinding dirty coolant, and exhausting through vent EP-12.

(9) One (1) coolant tank, identified as EU-Tank-13, constructed in 1992, with a maximum capacity of 5,000 gallons, containing G2 Grinding, New Concept Grinding, and Taper Roller Grinding dirty coolant, and exhausting through vent EP-13.

(10) One (1) coolant tank, identified as EU-Tank-14, constructed in 1992, with a maximum capacity of 5,000 gallons, containing G1 Grinding dirty coolant, and exhausting through vent EP-14.

(11) One (1) coolant tank, identified as EU-Tank-15, constructed in 1992, with a maximum capacity of 4,000 gallons, containing G1 Grinding clean coolant, and

exhausting through vent EP-15.

Note: The NSK Corporation Plant consists of ten (10) Aerostokes mist eliminators and nine (9) Clark Air Unit mist eliminators for particulate control. The Aeorostokes mist eliminators exhaust through vents EP-17 and/or EP-18 and the Clark Air Unit mist eliminators exhaust within the building.

NSK Precision America, Inc. Plant

(a) One (1) cutting process, identified as Cutting, constructed in 1995 through 2009, consisting of:

(1) Six (6) wet machining units, identified as EU-NPACT-01, EU-NPACT-03, and EU-NPACT-05 through EU-NPACT-08, utilizing no control devices, and exhausting within the building.

(2) Two (2) wet machining cut-off-saws, identified as EU-NPACT-09 and EU-NPACT-10, utilizing on-board mist eliminators as control devices, and exhausting within the building.

(3) One (1) dry mill saw, identified as EU-NPACT-04 utilizing no control devices, and exhausting within the building.

(4) One (1) dry chamfer machine, identified as EU-NPACT-11, utilizing no control devices, and exhausting within the building.

(5) One (1) dry nut polisher, identified as EU-NPACT-12, utilizing a dust collector for particulate control, and exhausting within the building.

(6) One (1) dry miter saw, identified as EU-NPACT-13, utilizing an integrated shop-vac as particulate control, and exhausting within the building.

(b) One (1) turning process, identified as Turning, constructed in 1994 through 2011, consisting of:

(1) Ten (10) shaft turning wet machining units, identified as EU-NPAT-01, EU-PAT-02, EU-PAT-04 through EU-NPAT-11, utilizing no control devices, and exhausting within the building.

(2) Two (2) blank turning wet machining units, identified as EU-NPAT-12 and EU-NPAT-13, utilizing on-board mist eliminators as control devices, and exhausting within the building.

(3) Five (5) ball circuit wet machining units, identified as EU-NPAT-14 through EU-NPAT-18, utilizing no control devices, and exhausting within the building.

(4) Eight (8) flange milling wet machining units, identified as EU-NPAT-19 through EU-NPAT-24, and EU-NPAT-26 and EU-NPAT-27, utilizing no control devices, and exhausting within the building.

(5) One (1) shaft turning wet machine unit, constructed in 2011, identified as EU-NPAT-28, utilizing no control device, and exhausting within the building.

(6) Two (2) shaft turning wet machines, approved for construction in 2013, identified as EU-NPAT-30 and EU-NPAT-31, utilizing no control device, and exhausting within the building.

(7) Two (2) nut turning wet machines, approved for construction in 2013, identified as EU-NPAT-29 and EU-NPAT-32, utilizing no control device, and exhausting within the building.

(c) One (1) grinding operation, constructed in 1993 through 2005, consisting of:

(1) Nine (9), shaft END/OD wet grinding machines, identified as EU-NPAG-01 through NPAG-9, utilizing on-board mist eliminators as control devices, and exhausting within the building.

(2) Three (3) shaft end milling wet machining units, identified as EU-NPAG-10 through EU-NPAG-12, utilizing no control devices, and exhausting within the building.

(3) Five (5) nut thread wet grinding machines, identified as EU-NPAG-13, EU-NPAG-27, EU-NPAG-28, EU-NPAG-31, and EU-NPAG-33, utilizing on-board mist eliminators as control devices, and exhausting within the building.

(4) Two (2) surface wet grinding machines, identified as EU-NPAG-14 and EU-NPAG-15, utilizing on-board mist eliminators as control devices, and exhausting within the building.

(5) Six (6) shaft thread wet grinding machines, identified as EU-NPAG-16 through EU-NPAG-21, utilizing on-board mist eliminators as control devices, and exhausting within the building.

(6) Five (5) shaft thread wet grinding machines, identified as EU-NPAG-22 through EU-NPAG-26, utilizing the central oil mist collectors (OMC) for particulate control, exhausting through vent EP-19.

(7) Two (2) nut turning wet machines, approved for construction in 2013, identified as EU-NPAT-29 and EU-NPAT-32, EU-NPAT-29 utilizes on-board mist collector (FX-900) for control and EU-NPAT-32 utilizes no control device, and exhausting within the building.

(8) One (1) nut thread wet grinding machine, identified as EU-NPAG-34, approved for construction in 2013, utilizing the central mist collectors (OMC) for particulate control, exhausting inside the building.

(d) One (1) dip process, identified as Dip Process, consisting of the following:

(1) Dip Process, constructed in 2008, consisting of four (4) dip tanks, identified as EU-NPAD-01 through EU-NPAD-04, utilizing no control device, and exhausting within the building**;**

(2) Dip process, one (1) dip tank, constructed in 2011, identified as EU-NPAD-05, utilizing no control device, and exhausting within the building.

(e) One (1) cold cleaner degreasing process, identified as Cleaning Process, consisting of the following:

(1) Cold cleaner degreasing process, constructed in 1993, 2003, and 2006, consisting of three (3) dip tanks, identified as EU-NPACL-01 through EU-NPACL-

03; exhausting within the building**;**

(2) Cold cleaner degreasing process, consisting of six (6) dip tanks, constructed in 2011, identified as EU-NPACL-04 through EU-NPACL-09, utilizing no control devices, and exhausting within the building.

(3) Cold cleaner degreasing process, consisting of six (6) dip tanks, approved for construction in 2013, identified as EU-NPACL-10 through EU-NPACL-15, utilizing no control devices, and exhausting within the building.

(f) One (1) packing process, identified as Packing Process, consisting of one hand packing operating and hand application of rust preventive, utilizing no control device, and exhausting within the building.

Note: The Precision Plant consists of two (2) central oil mist collectors for particulate control, identified as OMC. The OMC exhausts through vent EP-19.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

NSK Corporation

(1) Twenty (20) Interior Heaters nominally rated at 0.075 MMBtu/hr each
(2) Fifteen (15) Rooftop HVAC Units nominally rated at 0.85 MMBtu/hr each
(3) One (1) Rooftop HVAC Unit nominally rated at 2.0 MMBtu/hr
(4) One (1) Rooftop HVAC Unit nominally rated at 0.4 MMBtu/hr
(5) Two (2) Rooftop HVAC Units nominally rated at 0.3 MMBtu/hr each
(6) One (1) Rooftop HVAC Unit nominally rated at 0.15 MMBtu/hr
(7) Five (5) Rooftop HVAC Units nominally rated at 0.05 MMBtu/hr each
(8) One (1) Rooftop HVAC Unit nominally rated at 0.356 MMBtu/hr
(9) Two (2) Boilers nominally rated at 1.68 MMBtu/hr each
(10) One (1) natural gas-fired emergency stand-by generator nominally rated at 0.13 MMBtu/hr

Under NESHAP, Subpart ZZZZ, the natural gas-fired generator is considered an affected source.

NSK Precision America

(1) Seven (7) Interior Heaters nominally rated at 0.075 MMBtu/hr each
(2) Two (2) Interior Heaters nominally rated at 0.15 MMBtu/hr each
(3) Two (2) Interior Heaters nominally rated at 0.30 MMBtu/hr each
(4) Two (2) HVAC Units nominally rated at 0.85 MMBtu/hr each
(5) Three (3) HVAC Units nominally rated at 0.15 MMBtu/hr each
(6) Two (2) Boilers nominally rated at 4.5 MMBtu/hr each
(7) One (1) Water Heater nominally rated at 0.032 MMBtu/hr
(8) One (1) natural gas-fired emergency stand-by generator nominally rated at 0.13 MMBtu/hr

Under NESHAP, Subpart ZZZZ, the natural gas-fired generator is considered an affected source.

(b) Vessels storing the following:

(1) Hydraulic Oils
(2) Lubricating Oils

(c) Equipment used exclusively for packaging greases.

(d) Filling drums, pails, or other packaging containers with greases.

(e) Machining where an aqueous cutting coolant continuously floods the machining interface.

(f) Blowdown for the following:

(1) Compressors
(2) Cooling Tower

(g) Paved roads and parking lots with public access.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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 2-7) shall prevail.

B.2 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.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4][326 IAC 2-8]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 and 326 IAC 2-8 when the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as described in the application or the permit. The emission units covered in this permit may continue operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as described.

(b) If actual construction of the emission units differs from the construction described in the application, the source may not continue operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.

(c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

B.4 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F081-28776-00023, 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, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.5 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.6 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.7 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.8 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.9 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.10 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

(i) it contains a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1), and

(ii) the certification is based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) The annual compliance certification report 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) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.12 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(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.

The Permittee shall implement the PMPs.

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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) 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 PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 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.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to F081-28776-00023 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.16 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.17 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.18 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a

certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) 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) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.19 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.20 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

(b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.22 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][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 FESOP 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 the conditions of this permit;

(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 facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(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.23 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action or revocation of this permit.

(c) 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.

B.25 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(1)]

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 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 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 nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.6 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.7 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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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 that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 Licensed 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 Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

C.8 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ 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.9 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 [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than 180 days from the date on which this source commences operation.

The ERP does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The

Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) 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.

(d) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

NSK Corporation Hub Plant

(a) One (1) Grinding Operation, identified as G1 Grinding, consisting of:

(1) Three (3) wet grinding machines, identified as EU-G1-01 through EU-G1-03, constructed in 1989 through 1994, respectively, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(2) Three (3) wet grinding machines, identified as EU-G1-04 through EU-G1-06, constructed in 1989 through 2010, respectively, utilizing no control devices, and exhausting within the building.

(3) Three (3) wet grinding machines, identified as EU-G1-08 through EU-G1-10, approved for construction in 2013, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(b) One (1) Grinding Operation, identified as G2 Grinding, consisting of forty-two (42) wet grinding machines, divided into three sections HUB I, HUB II, and HUB III, with emission units identified as EU-G2-01 through EU-G2-08, and EU-G2-10 through EU-G2-18, EU-G2-21, EU-G2-22, EU-G2-24, EU-G2-25, EU-G2-30 through EU-G2-41 and EU-G2-43 constructed in 1990 through 2010, utilizing Aerostokes mist eliminators for particulate control, and exhausting through vents EP-17 or EP-18.

(c) One (1) Grinding Operation, identified as New Concept Grinding, constructed in 2009, consisting of twenty-four (24) wet grinding machines, identified as EU-NCG-01 through EU-NCG-08, and EU-NCG-10 through EU-NCG-25, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(d) One (1) grinding operation, identified as Taper Roller Grinding, consisting of the following:

(1) eight (8) wet grinding machines, constructed in 2009, identified as EU-TRG-01 through EU-TRG-08, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building**;**

(2) Two (2) taper roller grinders, identified as EU-TRG-09 and EU-TRG-13, approved for construction in 2011, utilizing Exhaust Fan EF-19 for control, exhausting through Vent EP-18;

(3) Six (6) taper roller grinders, identified as EU-TRG-10, EU-TRG-11, EU-TRG-12, and EU-TRG-14 through EU-TRG-16, constructed in 2011, utilizing Clark Air #8 Mist Eliminators for control, exhausting within the building.

(4) Eight (8) taper roller grinders, identified as EU-TRG-17 through EU-TRG-24, approved for construction in 2013, utilizing Exhaust Fan EF-19 for control (for EU-TRG-17), exhausting through vent EP-19, Clark Air #8 Mist Eliminators for control (for EU-TRG-18 through EU-TRG-20), exhausting within the building, and Clark Air #9 Mist Eliminators for control (for EU-TRG-21 through EU-TRG-24), exhausting within the building.

(e) One (1) superfinish operation, identified as Superfinish G2, constructed in 1990

through 2010, consisting of twenty-five (25) wet machining units, identified as EU-SFG2-01 through EU-SFG2-04, EU-SFG2-07, EU-SFG2-09 through EU-SFG2-12, EU-SFG2-14 through EU-SFG2-16, EU-SFG2-18, EU-SFG2-21, EU-SFG2-24**,** EU-SFG2-25, and EU-SFG2-27 through EU-SFG2-31, utilizing Aerostokes mist eliminators for particulate control, exhausting through vents EP-17 or EP-18.

(f) One (1) superfinish operation, identified as Superfinish New Concept, consisting of sixteen (16) wet machining units, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building:

(1) fourteen (14) wet machining units, identified as EU-SFNC-01 through EU-SFNC-03, constructed in 1990 through 2010 and EU-SFNC-05 through EU-SFNC-15, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(2) Two (2) wet machining units, identified as EU-SFNC-16 and EU-SFNC-17, approved for construction in 2013, utilizing Clark Air Unit #1 and #2, respectively, mist eliminators for particulate control, and exhausting within the building.

(g) One (1) superfinish operation, identified as Superfinish Taper Roller, consisting of the following:

(1) three (3) wet machining units, constructed in 2009, identified as EU-SFTR-01 through EU-SFTR-03, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building**;**

(2) Taper roller superfinish operation as follows:

(A) One (1) taper roller superfinish grinder, identified as EU-SFTR-04, constructed in 2011, utilizing Clark Air #9 Mist eliminators for particulate control, and exhausting within the building;

(B) Two (2) taper roller superfinish grinders, identified as EU-SFTR-06 and EU-SFTR-08, constructed in 2011, utilizing Clark Air #8 Mist eliminators for particulate control, and exhausting within the building;

(C) Two (2) taper roller superfinish grinders, identified as EU-SFTR-05 and EU-SFTR-07, constructed in 2011, utilizing Exhaust Fan EF-19 for control, exhausting through Vent EP-18.

(D) Four (4) taper roller superfinish grinders, identified as EU-SFTR-09 through EU-SFTR-12, approved for construction in 2013 utilizing Exhaust Fan EF-19 for control (EU-SFTR-09 and EU-SFTR-11), exhausting through Vent EP-18, EU-SFTR-10 , utilizing Clark Air #8 Mist eliminators for particulate control, and exhausting within the building, and EU-SFTR-12 , utilizing Clark Air #9 Mist eliminators for particulate control, and exhausting within the building.

(h) One (1) hard turning process, identified as FS-4 Turning, consisting of five (5) wet machining units, identified as EU-HTFS-01 through EU-HTFS-05, constructed in 2002 through 2010, utilizing no control devices, and exhausting within the building.

(i) One (1) hard turning process, identified as LU300 Turning, consisting of six (6) wet machining units, identified as EU-HTLU-01 through EU-HTLU-06, constructed in 2002

through 2010, utilizing no control devices, and exhausting within the building.

(j) One (1) broaching process, identified as Broaching, consisting of one (1) wet broaching unit~~s~~, identified as EU-BR-01, constructed in 2002, utilizing no control device~~s~~, and exhausting within the building.

(k) One (1) painting process, identified as Painting, consisting of:

(1) Five (5) paint lines, identified as EU-PNT-01 through EU-PNT-05, constructed in 2009, utilizing Clark Air Unit mist eliminators as particulate control, and exhausting within the building.

(2) Three (3) paint lines, identified as EU-PNT-08 through EU-PNT-10, constructed in 1990 through 2010, utilizing no control devices, and exhausting within the building.

(3) One (1) paint line, identified as EU-PNT-11, approved for construction in 2013, Clark Air Unit #9 mist eliminator for particulate control, and exhausting within the building.

(l) One (1) rust preventative application operation, identified as Hub I – Assembly Rust Preventative, constructed in 1990 through 2001, consisting of three (3) coating lines, identified as EU-H1RP-01 through EU-H1RP-03, utilizing no control devices, and exhausting within the building.

(m) One (1) rust preventative application operation, identified as Hub III – Assembly / New Concept Rust Preventative, constructed in 1995 through 2010, consisting of nine (9) coating lines, identified as EU-H3/NCRP-01 through EU-H3/NCRP-09, utilizing Clark Air Unit mist eliminators as particulate control, and exhausting within the building.

(n) One (1) rust preventative application operation, identified as Taper Roller Rust Preventative, consisting of the following:

(1) one (1) coating line, constructed in 1990, identified as EU-TRRP-01, utilizing a Clark Air Unit #8 mist eliminator as particulate control, and exhausting within the building**;**

(2) two (2) coating lines, constructed in 2011, identified as EU-TRRP-02 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18, and EU-TRRP-03, utilizing Clark Air Unit #9 mist eliminator for control, and exhausting within the building.

(3) two (2) coating lines, approved for construction in 2013, identified as EU-TRRP-04 and EU-TRRP-05 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18.

(o) Conveyorized Degreasers including:

(1) One (1) superfinish wash operation conveyorized degreasing operation, consisting of the following:

(A) conveyorized degreasing operation, identified as Superfinish Wash, constructed in 1990 through 2010, consisting of twenty-two (22) conveyorized degreasing units, identified as EU-SFW-01 through EU-SFW-04, EU-SFW-08 through EU-SFW-11, EU-SFW-13 through EU-

SFW-16, EU-SFW-18, EU-SFW-21, EU-SFW-22, EU-SFW-24, EU-SFW-25, and EU-SFW-27 through EU-SFW-31, utilizing no control device, and exhausting within the building**;**

(B) conveyorized degreasing operation, consisting of eight (8) conveyorized degreasing units, constructed in 2011, identified as EU-SFW-32 through EU-SFW-39, utilizing no control device, and exhausting within the building.

(2) One (1) parts wash conveyorized degreasing process, including three operations identified as Parts Wash, Rough Wash, and Finish Wash, consisting of the following:

(A) conveyorized degreasing process, constructed in 1990 through 2008, collectively consisting of thirty-six (36) conveyorized degreasing units, identified as EU-PW-01 through EU-PW-04, EU-PW-06 through EU-PW-08, EU-PW-15 through EU-PW-20, EU-PW-22 through EU-PW-27, EU-PW-30 through EU-PW-35, EU-PW-37, EU-PW-39 through EU-PW-41, EU-PW-43, and EU-PW-44, utilizing Clark Air Units #8 mist eliminators as control, and exhausting within the building**;**

(B) three (3) conveyorized degreasing units, constructed in 2011, identified as EU-PW-47 and EU-PW-48, utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18, and unit EU-PW-49, utilizing Clark Air Unit #9 mist eliminators for control, and exhausting within the building.

(C) Six (6) conveyorized degreasing units, approved for construction in 2013, identified as EU-PW-50 through EU-PW-55, utilizing Clark Air Units #4 (EU-PW-52) mist eliminators, Clark Air Units #6 (EU-PW-51), Clark Air Units #8 (EU-PW-50), Clark Air Units #9 (EU-PW-53 and EU-PW-54) as control, and exhausting within the building, and EU-PW-55 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18

(3) One (1) ball wash conveyorized degreasing process, identified as Ball Wash, constructed in 2001 and 1993, consisting of two (2) conveyorized degreasing units, identified as EU-BW-01 and EU-BW-03, utilizing no control device, and exhausting within the building.

(p) Miscellaneous process tanks including:

(1) One (1) finish wash tank, identified as EU-Tank-02, constructed in 1992, with a maximum capacity of 7,500 gallons, containing 95% kerosene and 5% additive, supplying the Finish Wash conveyorized degreasing units, and exhausting through vent EP-2.

(2) One (1) ball wash tank, identified as EU-Tank-03, constructed in 1992, with a maximum capacity of 4,000 gallons, containing 95% kerosene and 5% additive, supplying the Ball Wash conveyorized degreasing units, and exhausting through vent EP-3.

(3) One (1) rough wash tank, identified as EU-Tank-04, constructed in 1992, with a maximum capacity of 7,500 gallons, containing 95% kerosene and 5% additive, supplying the Rough Wash conveyorized degreasing units, and

exhausting through vent EP-4.

(4) One (1) parts wash tank, identified as EU-Tank-06, constructed in 1992, with a maximum capacity of 7,500 gallons, containing 95% kerosene and 5% additive, supplying the Parts Wash conveyorized degreasing units, and exhausting through vent EP-6.

(5) One (1) superfinish oil tank, identified as EU-Tank-07, constructed in 1992, with a maximum capacity of 4,000 gallons, containing Superfinish G2, Superfinish New Concept, and Superfinish Taper Roller dirty oil, and exhausting through vent EP-7.

(6) One (1) superfinish oil tank, identified as EU-Tank-08, constructed in 1992, with a maximum capacity of 3,000 gallons, containing Superfinish G2, Superfinish New Concept, and Superfinish Taper Roller clean oil, and exhausting through vent EP-8.

(7) One (1) super finish wash tank, identified as EU-Tank 10, constructed in 1992, with a maximum capacity of 2,500 gallons of superfinish wash fluid, supplying the Super Finish Wash conveyorized degreasing units, and an exhausting through vent EP-10.

(8) One (1) coolant tank, identified as EU-Tank-12, constructed in 1992, with a maximum capacity of 6,500 gallons, containing G2 Grinding, New Concept Grinding, and Taper Roller Grinding dirty coolant, and exhausting through vent EP-12.

(9) One (1) coolant tank, identified as EU-Tank-13, constructed in 1992, with a maximum capacity of 5,000 gallons, containing G2 Grinding, New Concept Grinding, and Taper Roller Grinding dirty coolant, and exhausting through vent EP-13.

(10) One (1) coolant tank, identified as EU-Tank-14, constructed in 1992, with a maximum capacity of 5,000 gallons, containing G1 Grinding dirty coolant, and exhausting through vent EP-14.

(11) One (1) coolant tank, identified as EU-Tank-15, constructed in 1992, with a maximum capacity of 4,000 gallons, containing G1 Grinding clean coolant, and exhausting through vent EP-15.

Note: The NSK Corporation Plant consists of ten (10) Aerostokes mist eliminators and nine (9) Clark Air Unit mist eliminators for particulate control. The Aeorostokes mist eliminators exhaust through vents EP-17 and/or EP-18 and the Clark Air Unit mist eliminators exhaust within the building.

NSK Precision America, Inc. Plant

(a) One (1) cutting process, identified as Cutting, constructed in 1995 through 2009, consisting of:

(1) Six (6) wet machining units, identified as EU-NPACT-01, EU-NPACT-03, and EU-NPACT-05 through EU-NPACT-08, utilizing no control devices, and exhausting within the building.

(2) Two (2) wet machining cut-off-saws, identified as EU-NPACT-09 and EU-NPACT-10, utilizing on-board mist eliminators as control devices, and exhausting within the building.

(3) One (1) dry mill saw, identified as EU-NPACT-04 utilizing no control devices, and exhausting within the building.

(4) One (1) dry chamfer machine, identified as EU-NPACT-11, utilizing no control devices, and exhausting within the building.

(5) One (1) dry nut polisher, identified as EU-NPACT-12, utilizing a dust collector for particulate control, and exhausting within the building.

(6) One (1) dry miter saw, identified as EU-NPACT-13, utilizing an integrated shop-vac as particulate control, and exhausting within the building.

(b) One (1) turning process, identified as Turning, constructed in 1994 through 2011, consisting of:

(1) Ten (10) shaft turning wet machining units, identified as EU-NPAT-01, EU-PAT-02, EU-PAT-04 through EU-NPAT-11, utilizing no control devices, and exhausting within the building.

(2) Two (2) blank turning wet machining units, identified as EU-NPAT-12 and EU-NPAT-13, utilizing on-board mist eliminators as control devices, and exhausting within the building.

(3) Five (5) ball circuit wet machining units, identified as EU-NPAT-14 through EU-NPAT-18, utilizing no control devices, and exhausting within the building.

(4) Eight (8) flange milling wet machining units, identified as EU-NPAT-19 through EU-NPAT-24, and EU-NPAT-26 and EU-NPAT-27, utilizing no control devices, and exhausting within the building.

(5) One (1) shaft turning wet machine unit, constructed in 2011, identified as EU-NPAT-28, utilizing no control device, and exhausting within the building.

(6) Two (2) shaft turning wet machines, approved for construction in 2013, identified as EU-NPAT-30 and EU-NPAT-31, utilizing no control device, and exhausting within the building.

(7) Two (2) nut turning wet machines, approved for construction in 2013, identified as EU-NPAT-29 and EU-NPAT-32, EU-NPAT-29 utilizes on-board mist collector (FX-900) for control and EU-NPAT-32 utilizes no control device, and exhausting within the building.

(c) One (1) grinding operation, constructed in 1993 through 2005, consisting of:

(1) Nine (9), shaft END/OD wet grinding machines, identified as EU-NPAG-01 through NPAG-9, utilizing on-board mist eliminators as control devices, and exhausting within the building.

(2) Three (3) shaft end milling wet machining units, identified as EU-NPAG-10 through EU-NPAG-12, utilizing no control devices, and exhausting within the building.

(3) Five (5) nut thread wet grinding machines, identified as EU-NPAG-13, EU-NPAG-27, EU-NPAG-28, EU-NPAG-31, and EU-NPAG-33, utilizing on-board

mist eliminators as control devices, and exhausting within the building.

(4) Two (2) surface wet grinding machines, identified as EU-NPAG-14 and EU-NPAG-15, utilizing on-board mist eliminators as control devices, and exhausting within the building.

(5) Six (6) shaft thread wet grinding machines, identified as EU-NPAG-16 through EU-NPAG-21, utilizing on-board mist eliminators as control devices, and exhausting within the building.

(6) Five (5) shaft thread wet grinding machines, identified as EU-NPAG-22 through EU-NPAG-26, utilizing the central oil mist collectors (OMC) for particulate control, exhausting through vent EP-19.

(7) Three (3) nut thread wet grinding machines, identified as EU-NPAG-29, EU-NPAG-30, and EU-NPAG-32, utilizing the central mist collectors (OMC) for particulate control, exhausting through vent EP-19.

(8) One (1) nut thread wet grinding machine, identified as EU-NPAG-34, approved for construction in 2013, utilizing the central mist collectors (OMC) for particulate control, exhausting inside the building.

(d) One (1) dip process, identified as Dip Process, consisting of the following:

(1) Dip Process, constructed in 2008, consisting of four (4) dip tanks, identified as EU-NPAD-01 through EU-NPAD-04, utilizing no control device, and exhausting within the building**;**

(2) Dip process, one (1) dip tank, constructed in 2011, identified as EU-NPAD-05, utilizing no control device, and exhausting within the building.

(e) One (1) cold cleaner degreasing process, identified as Cleaning Process, consisting of the following:

(1) Cold cleaner degreasing process, constructed in 1993, 2003, and 2006, consisting of three (3) dip tanks, identified as EU-NPACL-01 through EU-NPACL-03; exhausting within the building**;**

(2) Cold cleaner degreasing process, consisting of six (6) dip tanks, constructed in 2011, identified as EU-NPACL-04 through EU-NPACL-09, utilizing no control devices, and exhausting within the building.

(3) Cold cleaner degreasing process, consisting of six (6) dip tanks, approved for construction in 2013, identified as EU-NPACL-10 through EU-NPACL-15, utilizing no control devices, and exhausting within the building.

(f) One (1) packing process, identified as Packing Process, consisting of one hand packing operating and hand application of rust preventive, utilizing no control device, and exhausting within the building.

Note: The Precision Plant consists of two (2) central oil mist collectors for particulate control, identified as OMC. The OMC exhausts through vent EP-19.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 FESOP and PSD Minor Limits [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4, the input of volatile organic compounds (VOC), including coatings, to the below listed emission units, minus the VOC containing waste materials shipped out, shall be limited to 98.18 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with this limit, combined with the potential to emit VOC from other emission units at the source, shall limit the VOC from the entire source to less than 100 tons per twelve (12) consecutive month period and render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Processes	Controls	Exhaust IDs	Emission Unit IDs
NSK Corporation Hub Plant			
G1 Grinding	Clark Air Units	Internal	EU-G1-01 through EU-G1-03
	N/A	Internal	EU-G1-04 through EU-G1-06
	Clark Air Units	Internal	EU-G1-08 through EU-G1-10
G2 Grinding	Aerostokes	EP17 / EP18	EU-G2-01 through EU-G2-08
			EU-G2-10 through EU-G2-18, EU-G2-21, EU-G2-22, EU-G2-24, EU-G2-25, EU-G2-30 through EU-G2-41, EU-G2-43
New Concept Grinding	Clark Air Units	Internal	EU-NCG-01 through EU-NCG-08
			EU-NCG-10 through EU-NCG-25
Taper Roller Grinding	Clark Air Units	Internal	EU-TRG-01 through EU-TRG-08, EU-TRG-10, EU-TRG-11,EU-TRG-12, EU-TRG-14 through EU-TRG-16, EU-TRG-18 through EU-TRG-24
Taper Roller Grinding	Exhaust Fan EF-19	EP18	EU-TRG-9, EU-TRG-13, EU-TRG-17
Superfinish G2	Aerostokes	EP17 / EP18	EU-SFG2-01 through EU-SFG2-04 EU-SFG2-07 EU-SFG2-09 through EU-SFG2-12 EU-SFG2-14 through EU-SFG2-16, EU-SFG2-18 EUSFG2-21, EU-SFG2-24, EU-SFG2-25 EU-SFG2-27, EU-SFG2-28, EU-SFG2-30
	Clark Air Units	Internal	EU-SFG2-29 and EU-SFG2-31
Superfinish New Concept	Clark Air Units	Internal	EU-SFNC-01 through EU-SFNC-03
			EU-SFNC-06 through EU-SFNC-08 EU-SFNC-10 through EU-SFNC-15
			EU-SFNC-16, EU-SFNC-17
	Exhaust Fan EF-19	EP18	EU-SFNC-05 and EU-SFNC-09
Superfinish Taper Roller	Clark Air Units	Internal	EU-SFTR-01 through EU-SFTR-04, EU-SFTR-05, EU-SFTR-06, EU-STFR-08, EU-SFTR-10, EU-SFTR-12
	Exhaust Fan EF-19	EP18	EU-SFTR-05 through EU-SFTR-09, EU-SFTR-11
FS-4 Turning	N/A	Internal	EU-HTFS-01 through EU-HTFS-05
LU300 Turning	N/A	Internal	EU-HTLU-01 through EU-HTLU-06
Broaching	N/A	Internal	EU-BR-01
Painting	Clark Air Units	Internal	EU-PNT-01 through EU-PNT-05, EU-PNT-11
	N/A	Internal	EU-PNT-08 through EU-PNT-10
HUB I - Assembly Rust Preventative	N/A	Internal	EU-H1RP-01 through EU-H1RP-03
HUB III - Assembly / New Concept Rust Preventative	Clark Air Units	Internal	EU-H3/NCRP-01 through EU-H3/NCRP-09
Taper Roller Rust Preventative	Clark Air Unit	Internal	EU-TRRP-01, EU-TRRP-02
Taper Roller Rust Preventive	Exhaust Fan	EP18	EU-TRRP-03

Processes	Controls	Exhaust IDs	Emission Unit IDs
	EF-19		EU-TRRP-04, EU-TRRP-05
Superfinish Wash	N/A	Internal	EU-SFW-01 through EU-SFW-04
			EU-SFW-08 through EU-SFW-11
			EU-SFW-13 through EU-SFW-18
			EU-SFW-20 through EU-SFW-25
			EU-SFW-27 through EU-SFW-31
Parts Wash, Rough Wash, Finish Wash	Clark Air Units	Internal	EU-PW-01 through EU-PW-04, EU-PW-06 through EU-PW-08, EU-PW-15 through EU-PW-20, EU-PW-22 through EU-PW-37
			EU-PW-39 through EU-PW-41
			EU-PW-43 and EU-PW-47 through EU-PW-49
			EU-PW-50 through EU-PW-54
	Exhaust Fan EF-19	EP18	EU-PW-48, EU-PW-55
Ball Wash	N/A	Internal	EU-BW-01, EU-BW-03
Finish Wash, Ball Wash, Rough Wash - Tanks	N/A	Internal	EU-Tank-02 through EU-Tank-04
Parts Wash and Coolant Tanks	N/A	Internal	EU-Tank-06 through EU-Tank-08
Superfinish Wash Tank	N/A	Internal	EU-Tank-10
Coolant Tanks	N/A	Internal	EU-Tank-12 through EU-Tank-15
NSK Precision America, Inc. Plant			
Cutting	N/A	Internal	EU-NPACT-01 through EU-NPACT-08
	On-Board	Internal	EU-NPACT-09 and EU-NPACT-10
	N/A	Internal	EU-NPACT-11
	Dust Collector	Internal	EU-NPACT-12
	Shop-Vac	Internal	EU-NPACT-13
Turning	N/A	Internal	EU-NPAT-01, EU-NPAT-02, EU-NPAT-04 through EU-NPAT-11
	On-Board	Internal	EU-NPAT-12 and EU-NPAT-13
	N/A	Internal	EU-NPAT-14 through EU-NPAT-18
	N/A	Internal	EU-NPAT-19 through EU-NPAT-24
	N/A	Internal	EU-NPAT-26 and EU-NPAT-27
	FX-900	Internal	EU-NPAT-29
	N/A	Internal	EU-NPAT-30 through EU-NPAT-32
Grinding	On-Board	Internal	EU-NPAG-01 through EU-NPAG-09
	N/A	Internal	EU-NPAG-10 through EU-NPAG-12
	On-Board	Internal	EU-NPAG-27, 28, 31, and 33
	On-Board	Internal	EU-NPAG-13 through EU-NPAG-21
	OMC	EP19	EU-NPAG-22 through EU-NPAG-26
	OMC	EP19	EU-NPAG-29, 30, and 32
	M-90	Internal	EU-NPAG-34
Dip Process	N/A	Internal	EU-NPAD-01 through EU-NPAD-04
Cleaning Process	N/A	Internal	EU-NPACL-01 through EU-NPACL-09
			EU-NPACL-10 through EU-NPACL-15
Packing Process	N/A	Internal	EU-NPAPK-01

Notes: On-Board = On-board Mist Eliminator; OMC = Central Oil Mist Collectors

D.1.2 FESOP Limits [326 IAC 2-8-4][326 IAC 2-1.1-5]

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), and to render the requirements of 326 IAC 2-1.1-5 (Nonattainment New Source Review) not applicable for PM2.5, the source shall comply with the following:

(a) Combined PM10 Emissions from the AEROSTOKES mist eliminators, controlling the G2 Grinding and Superfinish G2**,** (NSK Corporation Plant) processes, and exhausting through EP-17 and/or EP-18, shall not exceed 5.15 lbs/hr.

(b) Combined PM2.5 Emissions from the AEROSTOKES mist eliminators, controlling the G2 Grinding and Superfinish G2**,** (NSK Corporation Plant) processes, and exhausting through EP-17 and/or EP-18, shall not exceed 5.15 lbs/hr.

(c) Combined PM10 Emissions from the Clark Air mist eliminators, and the Exhaust Fan EF-19, controlling the Taper Roller grinding, and Taper Roller Superfinish (NSK Corporation Plant) processes, shall not exceed 5.15 lbs/hr.

(d) Combined PM2.5 Emissions from the Clark Air mist eliminators, and the Exhaust Fan EF-19, controlling the Taper Roller grinding, and Taper Roller Superfinish (NSK Corporation Plant) processes, shall not exceed 5.15 lbs/hr.

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from other emission units at the source, shall limit the PM10 and PM2.5 from the entire source to less than 100 tons per twelve (12) consecutive month period and render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-1.1-5 (Nonattainment New Source Review) not applicable.

D.1.3 Volatile Organic Compound (VOC) Limit [326 IAC 8-2-9]

To render the requirements of 326 IAC 8-2-9 (Miscellaneous Coating Operations) not applicable, the owner or operator of this source shall comply with the following:

(a) The VOC usage for the Hub I - Assembly Rust Preventative process (EU-H1RP-01 through EU-H1RP-03) shall be less than 15.0 pounds per day.

(b) The VOC usage for the Hub III - Assembly / New Concept Rust Preventative process (EU-H3/NCRP-01 through EU-H3/NCRP-09) shall be less than 15.0 pounds per day.

(c) The VOC usage for the Taper Roller Rust Preventative (EU-TRRP-01) process shall be less than 15.0 pounds per day.

Compliance with these limits shall render the requirements of 326 IAC 8-2-9 not applicable

D.1.4 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of following emission units shall not exceed the pound per hour limit listed in the table below:

Process	Emission Units	Process Weight Rate (tons/hr)	Particulate Emissions (lbs/hr)
NSK Corporation Plant			
G1 Grinding	EU-G1-01 through EU-G1-03	0.34 (each)	2.00 (each)
	EU-G1-04	0.21	1.44
	EU-G1-05 and EU-G1-06	0.07 (each)	0.68 (each)
	EU-G1-08 through EU-G1-10	0.34 (each)	2.00 (each)
G2 Grinding	EU-G2-01 through EU-G2-08	0.07 (each)	0.69 (each)
	EU-G2-10 through EU-G2-39		
	EU-G2-40 and EU-G2-41	0.33 (each)	1.97 (each)
	EU-G2-42	0.22	1.50
	EU-G2-43	0.43	2.32
New Concept Grinding	EU-NCG-01 through EU-NCG-08	0.11 (each)	0.92 (each)
	EU-NCG-10 through EU-NCG-24		
	EU-NCG-25	0.43	2.32
Taper Roller Grinding	EU-TRG-01 through EU-TRG-07, EU-TRG-09 through EU-TRG-16	0.03 (each)	0.551 (each)
	EU-TRG-08	0.20	1.39
	EU-TRG-17 through EU-TRG-24	0.20 (each)	1.39 (each)
Superfinish G2	EU-SFG2-01 through EU-SFG2-04	0.10 (each)	0.85 (each)
	EU-SFG2-07		
	EU-SFG2-09 through EU-SFG2-12		
	EU-SFG2-14 through EU-SFG2-18		
	EU-SFG2-20 through EU-SFG2-25		
	EU-SFG2-27 through EU-SFG2-31		
Superfinish New Concept	EU-SFNC-01 through EU-SFNC-03	0.18 (each)	1.32 (each)
	EU-SFNC-05 through EU-SFNC-15		
Superfinish Taper Roller	EU-SFTR-01 through EU-SFTR-03, EU-SFTR-04 through EU-SFTR-08	0.07 (each)	0.66 (each)
	EU-SFTR-09 through EU-SFTR-12	0.07 (each)	0.66 (each)
FS-4 Turning	EU-HTFS-01 through EU-HTFS-05	0.02 (each)	0.551 (each)
LU300 Turning	EU-HTLU-01 through EU-HTLU-06	0.27 (each)	1.71 (each)
Broaching	EU-BR-01 ~~and EU-BR-02~~	0.27 ~~(each)~~	1.71 ~~(each)~~
NSK Precision America, Inc. Plant			
Cutting	EU-NPACT-01 through EU-NPACT-13	0.15 (each)	1.15 (each)
Turning	EU-NPAT-01 through EU-NPAT-24	0.06 (each)	0.59 (each)
	EU-NPAT-26 and EU-NPAT-27, EU-NPAT-28		
	EU-NPAT-29 through EU-NPAT-32		
Grinding Operation	EU-NPAG-01 through EU-NPAG-32	0.05 (each)	0.551 (each)
	EU-NPAG-34		

The pounds per hour limitation was calculated with the following equation:

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

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

D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and their control devices (Aerostokes mist eliminators and Clark Air Unit mist eliminators). Section B - Preventive

Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plans required by this condition.

Compliance Determination Requirements

D.1.6 Volatile Organic Compounds (VOC)

(a) Compliance with the VOC content and input limitations contained in Conditions D.1.1 and D.1.3 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 the 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.

(b) If the amount of VOC in the waste shipped offsite for recycling or disposal is deducted from the monthly VOC input reported, the Permittee shall determine the VOC content of the waste shipped offsite using one or a combination of the following methods:

(1) On-Site Sampling

(A) VOC content shall be determined pursuant to 326 IAC 8-1-4(a)(3) by EPA Reference Method 24 and the sampling procedures in 326 IAC 8-1-4 or other methods as approved by the Commissioner.

(B) A representative sample of the VOC containing waste to be shipped offsite shall be analyzed within 90 days of the issuance of this permit F081-28776-00023.

(C) If multiple waste streams are collected and bulked separately, a sample shall be collected and analyzed from each waste stream.

(D) A new representative sample shall be collected and analyzed whenever a change or changes occur(s) that could result in a cumulative 10% or more decrease in the VOC content of the VOC containing waste. Such change could include, but is not limited to, the following:

(i) A change in VOC material usage selection or formulation, as supplied or as applied, or

(ii) An operational change in the VOC material usage application or cleanup operations.

The new VOC content shall be used in calculating the amount of VOC shipped offsite, starting with the date that the change occurred. The sample shall be collected and analyzed within 30 days of the change.

(2) Certified Waste Report: The VOC reported by analysis of an offsite waste processor may be used, provided the report certifies the amount of VOC in the waste.

(3) Minimum Assumed VOC content: The VOC content of the waste shipped offsite may be assumed to be equal to the VOC content of the material with the lowest VOC content that could be present in the waste, as determined using the as supplied” and “as applied” VOC data sheets, for each month.

(c) IDEM reserves the right to request a representative sample of the VOC containing waste stream and conduct an analysis for VOC content.

(d) Compliance with the VOC input limitations contained in Condition D.1.1 shall be demonstrated within 30 days of the end of each month. This shall be based on the total volatile organic compound input for the previous month, minus the amount VOC in the waste shipped out for recycling or disposal, and adding it to previous 11 months total VOC input, minus the amount VOC in the waste shipped out for recycling or disposal, so as to arrive at VOC input for the most recent twelve (12) consecutive month period.

(e) The VOC input for a month shall be calculated using the following equation:

$$\text{VOC}\,input = \text{SCL} - \text{SR}$$

Where:

SCL = The total amount of VOC containing materials, in tons, including coatings, from the source; and

SR = The total amount of VOC containing materials, in tons, shipped out for either recycling or disposal, including coatings, from the source.

D.1.7 Particulate Control

(a) In order to comply with Conditions D.1.2 and D.1.4, the Aerostokes mist eliminators**,** Clark Air Mist Eliminators, and Exhaust Fan EF-19 shall be in operation at all times when the G2 Grinding and Superfinish G2**,** Taper Roller Grinding and Taper Roller Superfinish, processes, are in operation.

(b) In order to assure compliance with Condition D.1.4, the Clark Air Units and Exhaust Fan EF-19 shall operate at all times the G1 Grinding, New Concept Grinding, Taper Roller Grinding, Superfinish New Concept, and Superfinish Taper Roller processes are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.1.8 Visible Emissions Notations

(a) Visible emission notations of the EP17, EP18, and EP19 exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.9 Record Keeping Requirements

(a) To document the compliance status with Conditions D.1.1, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.1 and D.1.3, and to document the quantity of any VOC shipped offsite and deducted from total reported VOC usage. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(1) The VOC content of each coating material and solvent used.

(2) The amount of coating material and solvent used on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(3) If the amount of VOC in waste material is being deducted from the VOC input as allowed in paragraph (b) of Condition D.1.6, then the following records shall be maintained:

(A) The amount of VOC containing waste shipped out to be recycled or disposed each month. If multiple waste streams are collected and drummed separately, the amount shipped out shall be recorded separately for each VOC containing waste stream.

(B) The VOC content of the waste and all records necessary to verify the amount and VOC content of the VOC containing waste shipped out for recycling or disposal.

(C) The weight of VOC input, minus the weight of VOC shipped out to be recycled or disposed, for each compliance period.

(4) The total VOC usage for each month; and

(b) To document compliance with Condition D.1.3, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.1.3.

(1) The VOC content of each coating material used less water.

(2) The amount of coating material used on a daily 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;

(c) To document compliance with Condition D.1.8, the Permittee shall maintain daily records of the visible emission notations from each of the EP17, EP18, and EP19 exhaust stacks, when exhausting to the atmosphere. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the plant did not operate that day).

(d) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.1.10 Reporting Requirements

(a) A quarterly report of the information to document the compliance status with Condition D.1.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition.

(b) A quarterly report of the information to document the compliance status with Condition D.1.3 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Degreasers
NSK Corporation Hub Plant

(o) Conveyorized Degreasers including:

(1) One (1) superfinish wash operation conveyorized degreasing operation, consisting of the following:

(A) conveyorized degreasing operation, identified as Superfinish Wash, constructed in 1990 through 2010, consisting of twenty-two (22) conveyorized degreasing units, identified as EU-SFW-01 through EU-SFW-04, EU-SFW-08 through EU-SFW-11, EU-SFW-13 through EU-SFW-16, EU-SFW-18, EU-SFW-21, EU-SFW-22, EU-SFW-24, EU-SFW-25, and EU-SFW-27 through EU-SFW-31, utilizing no control device, and exhausting within the building**;**

(B) conveyorized degreasing operation, consisting of eight (8) conveyorized degreasing units, constructed in 2011, identified as EU-SFW-32 through EU-SFW-39, utilizing no control device, and exhausting within the building.

(2) One (1) parts wash conveyorized degreasing process, including three operations identified as Parts Wash, Rough Wash, and Finish Wash, consisting of the following:

(A) conveyorized degreasing process, constructed in 1990 through 2008, collectively consisting of thirty-six (36) conveyorized degreasing units, identified as EU-PW-01 through EU-PW-04, EU-PW-06 through EU-PW-08, EU-PW-15 through EU-PW-20, EU-PW-22 through EU-PW-27, EU-PW-30 through EU-PW-35, EU-PW-37, EU-PW-39 through EU-PW-41, EU-PW-43, and EU-PW-44, utilizing Clark Air Units #8 mist eliminators as control, and exhausting within the building**;**

(B) three (3) conveyorized degreasing units, constructed in 2011, identified as EU-PW-47 and EU-PW-48, utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18, and unit EU-PW-49, utilizing Clark Air Unit #9 mist eliminators for control, and exhausting within the building.

(C) Six (6) conveyorized degreasing units, approved for construction in 2013, identified as EU-PW-50 through EU-PW-55, utilizing Clark Air Units #4 (EU-PW-52) mist eliminators, Clark Air Units #6 (EU-PW-51), Clark Air Units #8 (EU-PW-50), Clark Air Units #9 (EU-PW-53 and EU-PW-54) as control, and exhausting within the building, and EU-PW-55 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18.

(3) One (1) ball wash conveyorized degreasing process, identified as Ball Wash, constructed in 2001 and 1993, consisting of two (2) conveyorized degreasing units, identified as EU-BW-01 and EU-BW-03, utilizing no control device, and exhausting within the building.

NSK Precision America, Inc. Plant

(e) One (1) cold cleaner degreasing process, identified as Cleaning Process, consisting of the following:

(1) Cold cleaner degreasing process, constructed in 1993, 2003, and 2006, consisting of

three (3) dip tanks, identified as EU-NPACL-01 through EU-NPACL-03; exhausting within the building**;**

(2) Cold cleaner degreasing process, consisting of six (6) dip tanks, constructed in 2011, identified as EU-NPACL-04 through EU-NPACL-09, utilizing no control devices, and exhausting within the building.

(3) Cold cleaner degreasing process, consisting of six (6) dip tanks, approved for construction in 2013, identified as EU-NPACL-10 through EU-NPACL-15, utilizing no control devices, and exhausting within the building.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-4]

Pursuant to 326 IAC 8-3-4 (Conveyorized Degreaser Control Equipment and Operating Requirements), the Permittee shall:

(a) Ensure the following control equipment and operating requirements have been met:

(1) Minimize carryout emissions by:

(A) Racking parts for best drainage;

(B) Maintaining the vertical conveyor speed at less than 3.3 meters per minute (eleven (11) feet per minute);

(2) Store waste solvent only in closed containers.

(3) Prohibit the disposal or transfer of waste solvent in a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(4) Repair solvent leaks immediately, or shut down the degreaser if leaks cannot be repaired immediately.

(5) Prohibit the use of workplace fans near the degreaser opening.

(6) Prohibit visually detectable water in the solvent from exiting the water separator.

(7) Equip the degreaser with a permanent, conspicuous label that lists the operating requirements in subdivisions (1) through (6).

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

The cold cleaner degreasers EU-NPACL-01 through EU-NPACL-15 are subject to the provisions of 326 IAC 8-3-2 (Organic solvent degreasing operations: cold cleaner operations). Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaning degreasers without remote solvent reservoirs constructed after July 1, 1990:

(a) The Permittee shall ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.

(5) Provide a permanent, conspicuous label that lists the operating requirements in (a)(3), (a)(4), (a)(6), and (a)(7) of this condition.

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) The Permittee shall ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those outlined in (b)(1)(A) through (D) of this condition that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

(A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

D.2.3 Volatile Organic Compounds [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8(b)(2)(Material requirements for Cold Cleaner) the Permittee shall not operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Farenheit).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.3 and pursuant to 326 IAC 8-3-8(c)(2) and (e), the Permittee shall maintain the following records for each purchase of solvent. These records shall be retained on-site for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

(1) The name and address of the solvent supplier.

(2) The date of purchase (or invoice/bill date of contract servicer indicating service date.

(3) The type of solvent purchased.

(4) The total volume of the solvent purchased.

(5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

SECTION E.1 FACILITY OPERATION CONDITIONS - 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)

Facility Description [326 IAC 2-8-4(10)]:

Insignificant Activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

NSK Corporation

(1) Twenty (20) Interior Heaters nominally rated at 0.075 MMBtu/hr each
(2) Fifteen (15) Rooftop HVAC Units nominally rated at 0.85 MMBtu/hr each
(3) One (1) Rooftop HVAC Unit nominally rated at 2.0 MMBtu/hr
(4) One (1) Rooftop HVAC Unit nominally rated at 0.4 MMBtu/hr
(5) Two (2) Rooftop HVAC Units nominally rated at 0.3 MMBtu/hr each
(6) One (1) Rooftop HVAC Unit nominally rated at 0.15 MMBtu/hr
(7) Five (5) Rooftop HVAC Units nominally rated at 0.05 MMBtu/hr each
(8) One (1) Rooftop HVAC Unit nominally rated at 0.356 MMBtu/hr
(9) Two (2) Boilers nominally rated at 1.68 MMBtu/hr each
(10) One (1) natural gas-fired emergency stand-by generator nominally rated at 0.13 MMBtu/hr

Under NESHAP, Subpart ZZZZ, the natural gas-fired generator is considered an affected source.

NSK Precision America

(1) Seven (7) Interior Heaters nominally rated at 0.075 MMBtu/hr each
(2) Two (2) Interior Heaters nominally rated at 0.15 MMBtu/hr each
(3) Two (2) Interior Heaters nominally rated at 0.30 MMBtu/hr each
(4) Two (2) HVAC Units nominally rated at 0.85 MMBtu/hr each
(5) Three (3) HVAC Units nominally rated at 0.15 MMBtu/hr each
(6) Two (2) Boilers nominally rated at 4.5 MMBtu/hr each
(7) One (1) Water Heater nominally rated at 0.032 MMBtu/hr
(8) One (1) natural gas-fired emergency stand-by generator nominally rated at 0.13 MMBtu/hr

Under NESHAP, Subpart ZZZZ, the natural gas-fired generator is considered an affected source.

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

National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements: Stationary Reciprocating Internal Combustion Engines

E.1.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.6580, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-82, for the natural gas-fired emergency stand-by generators as specified in Table 8 of 40 CFR Part 63, Subpart ZZZZ in accordance with the schedule in 40 CFR 63, Subpart

ZZZZ.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment A) which are incorporated by reference as 326 IAC 20-82 for the reciprocating internal combustion engine:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585(a),(c),(d)
(3) 40 CFR 63.6590(a)(1)(iii),(iv),(b)(3)
(4) 40 CFR 63.6605
(5) 40 CFR 63.6625(e),(f)
(6) 40 CFR 63.6645(a)(5)
(7) 40 CFR 63.6670
(8) 40 CFR 63.6675

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: NSK Corporation - Franklin Campus
Source Address: 3400 Bearing Drive, Franklin, Indiana 46131
FESOP Permit No.: F081-28776-00023

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: NSK Corporation - Franklin Campus
Source Address: 3400 Bearing Drive, Franklin, Indiana 46131
FESOP Permit No.: F081-28776-00023

This form consists of 2 pages **Page 1 of 2**

□ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Quarterly Report

Source Name: NSK Corporation - Franklin Campus
Source Address(es): 3400 Bearing Drive, Franklin, IN 46131; and
3450 Bearing Drive, Franklin, IN 46131
FESOP Permit No.: F081-28776-00023
Facilities: See Table Below
Parameter: VOC
Limit: The input of volatile organic compounds (VOC) to the below listed emission units, minus the VOC containing waste materials shipped out, shall be limited to 98.18 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

This form consists of 3 pages **Page 1 of 3**

Processes	Controls	Exhaust IDs	Emission Unit IDs
NSK Corporation Hub Plant			
G1 Grinding	Clark Air Units	Internal	EU-G1-01 through EU-G1-03
	N/A	Internal	EU-G1-04 through EU-G1-06
	Clark Air Units	Internal	EU-G1-08 through EU-G1-10
G2 Grinding	Aerostokes	EP17 / EP18	EU-G2-01 through EU-G2-08
			EU-G2-10 through EU-G2-18, EU-G2-21, EU-G2-22, EU-G2-24, EU-G2-25, EU-G2-30 through EU-G2-41, EU-G2-43
New Concept Grinding	Clark Air Units	Internal	EU-NCG-01 through EU-NCG-08
			EU-NCG-10 through EU-NCG-25
Taper Roller Grinding	Clark Air Units	Internal	EU-TRG-01 through EU-TRG-08, EU-TRG-10, EU-TRG-11,EU-TRG-12, EU-TRG-14 through EU-TRG-16, EU-TRG-18 through EU-TRG-24
Taper Roller Grinding	Exhaust Fan EF-19	EP18	EU-TRG-9, EU-TRG-13, EU-TRG-17
Superfinish G2	Aerostokes	EP17 / EP18	EU-SFG2-01 through EU-SFG2-04 EU-SFG2-07 EU-SFG2-09 through EU-SFG2-12 EU-SFG2-14 through EU-SFG2-16, EU-SFG2-18 EUSFG2-21, EU-SFG2-24, EU-SFG2-25\EU-SFG2-27, EU-SFG2-28, EU-SFG2-30
	Clark Air Units	Internal	EU-SFG2-29 and EU-SFG2-31
Superfinish New Concept	Clark Air Units	Internal	EU-SFNC-01 through EU-SFNC-03
			EU-SFNC-06 through EU-SFNC-08 EU-SFNC-10 through EU-SFNC-15
			EU-SFNC-16, EU-SFNC-17
	Exhaust Fan EF-19	EP18	EU-SFNC-05 and EU-SFNC-09
Superfinish Taper Roller	Clark Air Units	Internal	EU-SFTR-01 through EU-SFTR-04, EU-SFTR-06, EU-SFTR-08, EU-SFTR-10, EU-SFTR-12
	Exhaust Fan EF-19	EP18	EU-SFTR-05 and EU-SFTR-07, EU-SFTR-09, EU-SFTR-11
FS-4 Turning	N/A	Internal	EU-HTFS-01 through EU-HTFS-05

Processes	Controls	Exhaust IDs	Emission Unit IDs
LU300 Turning	N/A	Internal	EU-HTLU-01 through EU-HTLU-06
Broaching	N/A	Internal	EU-BR-01
Painting	Clark Air Units	Internal	EU-PNT-01 through EU-PNT-05, EU-PNT-11
	N/A	Internal	EU-PNT-08 through EU-PNT-10
HUB I - Assembly Rust Preventative	N/A	Internal	EU-H1RP-01 through EU-H1RP-03
HUB III - Assembly / New Concept Rust Preventative	Clark Air Units	Internal	EU-H3/NCRP-01 through EU-H3/NCRP-09
Taper Roller Rust Preventative	Clark Air Unit	Internal	EU-TRRP-01, EU-TRRP-02
Taper Roller Rust Preventive	Exhaust Fan EF-19	EP18	EU-TRRP-03
			EU-TRRP-04, EU-TRRP-05
Superfinish Wash	N/A	Internal	EU-SFW-01 through EU-SFW-04
			EU-SFW-08 through EU-SFW-11
			EU-SFW-13 through EU-SFW-18
			EU-SFW-20 through EU-SFW-25
			EU-SFW-27 through EU-SFW-31
Parts Wash, Rough Wash, Finish Wash	Clark Air Units	Internal	EU-PW-01 through EU-PW-04, EU-PW-06 through EU-PW-08, EU-PW-15 through EU-PW-20, EU-PW-22 through EU-PW-37
			EU-PW-39 through EU-PW-41
			EU-PW-43 and EU-PW-4, EU-PW-49
			EU-PW-50 through EU-PW-54
	Exhaust Fan EF-19	EP18	EU-PW-48, EU-PW-55
Ball Wash			EU-BW-01, EU-BW-03
Finish Wash, Ball Wash, Rough Wash - Tanks	N/A	Internal	EU-Tank-02 through EU-Tank-04
Parts Wash and Coolant Tanks	N/A	Internal	EU-Tank-06 through EU-Tank-08
Superfinish Wash Tank	N/A	Internal	EU-Tank-10
Coolant Tanks	N/A	Internal	EU-Tank-12 through EU-Tank-15
NSK Precision America, Inc. Plant			
Cutting	N/A	Internal	EU-NPACT-01 through EU-NPACT-08
	On-Board	Internal	EU-NPACT-09 and EU-NPACT-10
	N/A	Internal	EU-NPACT-11
	Dust Collector	Internal	EU-NPACT-12
	Shop-Vac	Internal	EU-NPACT-13
Turning	N/A	Internal	EU-NPAT-01, EU-NPAT-02, EU-NPAT-04 through EU-NPAT-11
	On-Board	Internal	EU-NPAT-12 and EU-NPAT-13
	N/A	Internal	EU-NPAT-14 through EU-NPAT-18
	N/A	Internal	EU-NPAT-19 through EU-NPAT-24
	N/A	Internal	EU-NPAT-26 and EU-NPAT-27
	FX-900	Internal	EU-NPAT-29
	N/A	Internal	EU-NPAT-30 through EU-NPAT-32
Grinding	On-Board	Internal	EU-NPAG-01 through EU-NPAG-09
	N/A	Internal	EU-NPAG-10 through EU-NPAG-12
	On-Board	Internal	EU-NPAG-27, 28, 31, and 33
	On-Board	Internal	EU-NPAG-13 through EU-NPAG-21
	OMC	EP19	EU-NPAG-22 through EU-NPAG-26
	OMC	EP19	EU-NPAG-29, 30, and 32
	M-90	Internal	EU-NPAG-34
Dip Process	N/A	Internal	EU-NPAD-01 through EU-NPAD-04
Cleaning Process	N/A	Internal	EU-NPACL-01 through EU-NPACL-09
			EU-NPACL-10 through EU-NPACL-15
Packing Process	N/A	Internal	EU-NPAPK-01

YEAR:_____

Month	Column 1			Column 2			Column 1 + Column 2		
	This Month			Previous 11 Months			12 Month Total		
	VOC Input (tons)	VOC Recycled (tons)	VOC Emitted (tons)	VOC Input (tons)	VOC Recycled (tons)	VOC Emitted (VOC)	VOC Input (tons)	VOC Recycled (tons)	VOC Emitted (tons)
Month 1									
Month 2									
Month 3									

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Usage Report
(Submit Report Quarterly)

Source Name: NSK Franklin - Franklin Campus
Source Address(es): 3400 Bearing Drive, Franklin, IN 46131; and
3450 Bearing Drive, Franklin, IN 46131
FESOP Permit No.: F081-28776-00023
Facility: Hub I - Assembly Rust Preventative
Parameter: VOC Usage
Limit: The VOC usage for the Hub I - Assembly Rust Preventative process (EU-H1RP-01 through EU-H1RP-03) shall be less than 15.0 pounds per day.

Month: _____ **Year:** _____

Day		Day	
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16			

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on_____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Usage Report
(Submit Report Quarterly)

Source Name: NSK Franklin - Franklin Campus
Source Address(es): 3400 Bearing Drive, Franklin, IN 46131; and
3450 Bearing Drive, Franklin, IN 46131
FESOP Permit No.: F081-28776-00023
Facility: Hub III - Assembly / New Concept Rust Preventative
Parameter: VOC Usage
Limit: The VOC usage for the Hub III - Assembly / New Concept Rust Preventative process (EU-H3/NCRP-01 through EU-H3/NCRP-09) shall be less than 15.0 pounds per day.

Month: _____ **Year:** _____

Day		Day	
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16			

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on_____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Usage Report
(Submit Report Quarterly)

Source Name: NSK Franklin - Franklin Campus
Source Address(es): 3400 Bearing Drive, Franklin, IN 46131; and
3450 Bearing Drive, Franklin, IN 46131
FESOP Permit No.: F081-28776-00023
Facility: Taper Roller Rust Preventative
Parameter: VOC Usage
Limit: The VOC usage for the Taper Roller Rust Preventative (EU-TRRP-01) process shall be less than 15.0 pounds per day each.

Month: _____ **Year:** _____

Day		Day	
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16			

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on_____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: NSK Corporation - Franklin Campus
Source Address(es): 3400 Bearing Drive, Franklin, IN 46131; and
3450 Bearing Drive, Franklin, IN 46131
FESOP Permit No.: F081-28776-00023

Months: _____ **to** _____ **Year:** _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for an Administrative Amendment to a Federally Enforceable State Operating Permit (FESOP)

Source Description and Location

Source Name:	**NSK Corporation - Franklin Campus**
Source Location:	**3400 Bearing Drive, Franklin, IN 46131** **3450 Bearing Drive, Franklin, IN 46131**
County:	**Johnson**
SIC Code:	**3562 (Ball and Roller Bearings)**
Operation Permit No.:	**F 081-28776-00023**
Operation Permit Issuance Date:	**July 29, 2010**
Minor Permit Revision No.:	**081-33541-00023**
Permit Reviewer:	**Bruce Farrar**

On August 16, 2013, the Office of Air Quality (OAQ) received an application from NSK Corporation - Franklin Campus related to a modification to an existing hub bearing and ball screw manufacturing plant.

Source Definition

This source consists of the following plants:

(a) NSK Corporation Building is located at 3400 Bearing Drive, Franklin, IN 46131; and

(b) NSK Precision America, Inc. Building is located at 3450 Bearing Drive, Franklin, IN 46131.

In order to consider both plants as one single source, all three of the following criteria must be met:

(1) The plants must have common ownership/control;
(2) The plants must have the same SIC code; and
(3) The plants must be located on contiguous or adjacent properties.

These plants are located on the same property, have the same SIC codes of 3562 and are under common control; therefore they will be considered one (1) source, as defined by 326 IAC 2-7-1(22). This determination was initially made under FESOP No. 081-28776-00023, issued on July 29, 2010.

Existing Approvals

The source was issued FESOP No. F 081-28776-00023 on July 29, 2010. The source has since received Significant Permit Revision No. 081-30120-00023, issued on August 23, 2011.

County Attainment Status

The source is located in Johnson County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Attainment effective October 19, 2007, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Unclassifiable or attainment effective federally July 11, 2013, for PM2.5.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Johnson County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Johnson County has been classified as attainment for $PM_{2.5}$. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5,}$ $SO_{2,}$ and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(d) Other Criteria Pollutants
Johnson County has been classified as attainment or unclassifiable in Indiana for all pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Status of the Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits:

This PTE table is from the TSD of Significant Permit Revision No. 081-30120-00023, issued on August 23, 2011.

	Potential To Emit of the Entire Source Prior to Revision (tons/year)								
Process/ Emission Unit	PM	PM10, PM2.5	SO_2	NOx	VOC	CO	GHG as CO_2e**	Total HAPs	Worst Single HAP
NSK Corporation Natural Gas Combustion	0.18	0.72	0.06	9.42	0.52	7.91	11,367.06	0.18	-
NSK Precision America Natural Gas Combustion	0.11	0.42	0.03	5.58	0.31	4.69	6,735.31	0.11	-
NSK Corporation Wet Machining					98.18 (a)			5.98	4.09 Ethylene Glycol
Aerostokes Mist Collectors	22.56	22.56	-	-		-	-		
Exhaust Fan EF-19 (b)	22.56	22.56	-	-		-	-		
Clark Air Unit Mist Eliminators (b)	22.56	22.56	-	-		-	-		
NSK Precision America Wet Machining	21.93	21.93	-	-		-	-		
Spray Coating	0.43	0.43	-	-		-	-		
HUB I Rust Preventative	-	-	-	-		-	-		
HUB II Rust Preventative	-	-	-	-		-			
HUB III Rust Preventative	-	-	-	-		-			
Taper Roller Rust Preventative	-	-	-	-		-			
Conveyorized Degreasers	-	-	-	-		-			
Dip Coating	-	-	-	-		-	-		
Cold Cleaner Degreasers	-	-	-	-		-	-		
Packing Process	-	-	-	-		-	-		
NSK Hub Plant – Wet Grinders EU-TRG-09 through EU-TRG-12 (controlled by Clark Air Mist Eliminators or Exhaust Fan EF-19)	(b)	(b)	-	-		-	-		
NSK Hub Plant Superfinish wet machines EU-SFTR-04 through EU-SFTR-08 (controlled by Clark Air Mist Eliminators or Exhaust Fan EF-19)	(b)	(b)	-	-		-			
NSK Hub Plant – Rust Preventive Lines EU-TRRP-02 and EU-TRRP-03 (controlled by Clark Air Unit mist eliminators or Exhaust Fan EF-19)	(b)	(b)	-	-		-	-		

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)								
	PM	PM10, PM2.5	SO_2	NOx	VOC	CO	GHG as CO_2e**	Total HAPs	Worst Single HAP
NSK Hub Plant - Superfinish wash degreasing EU-SFW-32 through EU-SFW-39 (no control)	-	-	-	-		-	-		
NSK Hub Plant – Parts wash process, EU-PW-47 through EU-PW-49 (controlled by Clark Air Units or Exhaust Fan EF-19)	(b)	(b)	-	-		-	-		
NPA - Shaft turning EU-NPAT-28	-	-	-	-		-	-		
NPA -Dip coating tank, EU-NPAD-05	-	-	-	-		-	-		
NPA- Dip tanks cold cleaner EU-NPACL-04 through EYU-NPACL-09	-	-	-	-		-	-		
Roadways (fugitive)	1.43	0.28	0.04	-	-	-	-	-	-
Total PTE of Entire Source	156.32	91.17	0.09	14.99	99.00	12.60	18,102.37	6.26	4.09 Ethylene Glycol
Title V Major Source Thresholds	NA	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	100,000	NA	NA
Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA

negl. = negligible
* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
(a) VOC emissions are included under a combined VOC usage limitation.
(b) Overall PM10 and PM2.5 emissions limits are specified for the Clark Air Mist Eliminators or Exhaust Fan EF-19, which control several processes.
** The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the unlimited potential to emit HAPs are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by NSK Corporation - Franklin Campus on August 16, 2013, relating to construction of additional units that are of the same type as existing units.

The following is a list of the new emission units and pollution control devices:

(a) The one grinding operation, identified as G1 Grinding has added:

Three (3) wet grinding machines, identified as EU-G1-08 through EU-G1-10, approved for construction in 2013, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(b) One (1) grinding operation, identified as Taper Roller Grinding, has added:

Eight (8) taper roller grinders, identified as EU-TRG-17 through EU-TRG-24, approved for construction in 2013, utilizing Exhaust Fan EF-19 for control (for EU-TRG-17), exhausting through vent EP-19, Clark Air #8 Mist Eliminators for control (for EU-TRG-18 through EU-TRG-20), exhausting within the building, and Clark Air #9 Mist Eliminators for control (for EU-TRG-21 through EU-TRG-24), exhausting within the building.

(c) One (1) superfinish operation, identified as Superfinish New Concept, has added:

Two (2) wet machining units, identified as EU-SFNC-16 and EU-SFNC-17, approved for construction in 2013, utilizing Clark Air Unit #1 and #2, respectively, mist eliminators for particulate control, and exhausting within the building.

(d) One (1) superfinish operation, identified as Superfinish Taper Roller, has added:

Four (4) taper roller superfinish grinders, identified as EU-SFTR-09 through EU-SFTR-12, approved for construction in 2013 utilizing Exhaust Fan EF-19 for control (EU-SFTR-09 and EU-SFTR-11, exhausting through Vent EP-18. EU-SFTR-10, utilizing Clark Air #8 Mist eliminators for particulate control, and exhausting within the building, and EU-SFTR-12, utilizing Clark Air #9 Mist eliminators for particulate control, and exhausting within the building.

(e) One (1) painting process, identified as Painting, has added:

One (1) paint line, identified as EU-PNT-11, approved for construction in 2013, Clark Air Unit #9 mist eliminator for particulate control, and exhausting within the building.

(f) One (1) rust preventative application operation, identified as Taper Roller Rust Preventative, consisting of the following:

Two (2) coating lines, approved for construction in 2013, identified as EU-TRRP-04 and EU-TRRP-05 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18.

(g) One (1) parts wash conveyorized degreasing process has added:

Six (6) conveyorized degreasing units, approved for construction in 2013, identified as EU-PW-50 through EU-PW-55, utilizing Clark Air Units #4 (EU-PW-52) mist eliminators, Clark Air Units #6 (EU-PW-51), Clark Air Units #8 (EU-PW-50), Clark Air Units #9(EU-PW-53 and EU-PW-54) as control, and exhausting within the building, and EU-PW-55 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18

(h) One (1) turning process, identified as Turning, has added:

(1) Two (2) shaft turning wet machines, approved for construction in 2013, identified as EU-NPAT-30 and EU-PAT-31, utilizing no control device, and exhausting within the building.

(2) Two (2) nut turning wet machines, approved for construction in 2013, identified as EU-NPAT-29 and EU-PAT-32, EU-NPAT-29 utilizes on-board mist collector (FX-900) for control and EU-NPAT-32 utilizes no control device, and exhausting within the building.

(i) One (1) grinding operation, has added:

One nut thread wet grinding machine, identified as EU-NPAG-34, approved for construction in 2013, utilizing the central mist collectors (OMC) for particulate control, exhausting inside the building.

(j) One (1) cold cleaner degreasing process, identified as Cleaning Process, has added:

Cold cleaner degreasing process, consisting of six (6) dip tanks, approved for construction in 2013, identified as EU-NPACL-10 through EU-NPACL-15, utilizing no control devices, and exhausting within the building.

The following is a list of the removed emission units:

(a) The Grinding Operation EU-G2 has removed eight (8) grinding machines, identified as EU-G2-19, EU-G2-20, EU-G2-23, EU-G2-26, EU-G2-27, EU-G2-28, EU-G2-29 and EU-G2-42.

(b) The painting process has remove two (2) paint lines, identified as EU-PNT-06 and EU-PNT-07.

(c) The one (1) rust preventative application operation, identified as Hub II – Assembly Rust Preventative has been removed.

(e) The superfinish operation has removed five (5) wet machining units, identified as EU-SFG2-17, EU-SFG2-19, EU-SFG2-20, EU-SFG2-22, EU-SFG2-23.

(f) The superfinish wash operation conveyorized degreasing operation has removed three (3) conveyorized degreasing units, identified as EU-SFW-17, EU-SFW-20 and EU-SFW-22.

(g) The ball wash conveyorized degreasing process has removed two (2) degreasing units, identified as EU-BW-02 and EU-BW-04.

(h) The conveyorized degreasing process has removed eleven (11) conveyorized degreasing units, identified as EU-PW-05, EU-PW-09, EU-PW-10, EU-PW-11, EU-PW-12, EU-PW-13, EU-PW-14 and EU-PW-21, EU-PW-28, EU-PW-29, EU-PW-36.

(j) The broaching process has removed one (1) wet broaching unit, identified as EU-BR-02.

Enforcement Issues

There are no pending enforcement actions related to this revision.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – FESOP Administrative Amendment

The following table is used to determine the appropriate permit level under 326 IAC 2-8.10. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	PTE of Proposed Amendment (tons/year)									
	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e	Total HAPs	Worst Single HAP
EU-G1-08 through EU-G1-10	-	-	-	-	-	6.57E-03	-	-	-	-
EU-TRG-17 through EU-TRG-26	-	-	-	-	-	0.02	-	-	-	-
EU-SFTR-09 through EU-SFTR-12	-	-	-	-	-	1.50	-	-	-	-
EU-SFNC-16 and EU-SFNC-17	-	-	-	-	-	0.75	-	-	-	-
EU-PNT-11	-	-	-	-	-	0.27	-	-	-	-
EU-PW-50 through EU-PW-55	-	-	-	-	-	6.83	-	-	-	-
EU-TRRP-04	-	-	-	-	-	2.49	-	-	-	-
EU-TRRP-05	-	-	-	-	-	3.63	-	-	-	-
EU-NPACL-10 through EU-NPACL-15	-	-	-	-	-	2.01	-	-	-	-
EU-NPAG-34	-	-	-	-	-	0.02	-	-	-	-
EU-NPAT-29 through EU-NPAT-32	-	-	-	-	-	0.06	-	-	-	-
Total PTE of Proposed Revision	-	-	-	-	-	17.59	-	-	-	-
negl. = negligible										

Pursuant to 326 IAC 2-8-10(10), this FESOP is being revised through a FESOP Administrative Amendment because this change to the permit is considered an administrative amendment because the permit is amended to incorporate a modification that adds emissions unit of the same type that are already permitted and that will comply with the same applicable requirements and permit terms and conditions as the existing emission unit.

PTE of the Entire Source After Issuance of the FESOP Revision

The table below summarizes the potential to emit of the entire source with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10, PM2.5	SO_2	NOx	VOC	CO	GHG as CO_2e**	Total HAPs	Worst Single HAP
NSK Corporation Natural Gas Combustion	0.18	0.72	0.06	9.42	0.52	7.91	11,367.06	0.18	-
NSK Precision America Natural Gas Combustion	0.11	0.42	0.03	5.58	0.31	4.69	6,735.31	0.11	-
NSK Corporation Wet Machining					98.18 (a)			5.98	4.09 Ethylene Glycol
Aerostokes Mist Collectors	22.56	22.56	-	-		-	-		
Exhaust Fan EF-19 (b)	22.56	22.56	-	-		-	-		
Clark Air Unit Mist Eliminators (b)	22.56	22.56	-	-		-	-		
NSK Precision America Wet Machining	21.93	21.93	-	-		-	-		
Spray Coating	0.43	0.43	-	-		-	-		
HUB I Rust Preventative	-	-	-	-		-	-		
~~HUB II Rust Preventative~~	-	-	-	-		-			
HUB III Rust Preventative	-	-	-	-		-			
Taper Roller Rust Preventative	-	-	-	-		-			
Conveyorized Degreasers	-	-	-	-		-			
Dip Coating	-	-	-	-		-	-		
Cold Cleaner Degreasers	-	-	-	-		-	-		
Packing Process	-	-	-	-		-	-		
NSK Hub Plant – Wet Grinders ~~EU-TRG-09 through EU-TRG-12~~ (controlled by Clark Air Mist Eliminators or Exhaust Fan EF-19)	(b)	(b)	-	-		-	-		
NSK Hub Plant Superfinish wet machines ~~EU-SFTR-04 through EU-SFTR-08~~ (controlled by Clark Air Mist Eliminators or Exhaust Fan EF-19)	(b)	(b)	-	-		-			
NSK Hub Plant – Rust Preventive Lines ~~EU-TRRP-02 and EU-TRRP-03~~ (controlled by Clark Air Unit mist eliminators or Exhaust Fan EF-19)	(b)	(b)	-	-		-	-		
NSK Hub Plant - Superfinish wash degreasing ~~EU-SFW-32 through EU-SFW-39~~ (no control)	-	-	-	-		-	-		

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10, PM2.5	SO_2	NOx	VOC	CO	GHG as CO_2e**	Total HAPs	Worst Single HAP
NSK Hub Plant – Parts wash process, ~~EU-PW-47 through EU-PW-49~~ (controlled by Clark Air Units or Exhaust Fan EF-19)	(b)	(b)	-	-		-	-		
NPA - Shaft turning ~~EU-NPAT-28~~	-	-	-	-		-	-		
NPA -Dip coating tank, ~~EU-NPAD-05~~	-	-	-	-		-	-		
NPA- Dip tanks cold cleaner ~~EU-NPACL-04 through EYU-NPACL-09~~	-	-	-	-		-	-		
Roadways (fugitive)	1.43	0.28	0.04	-	-	-	-	-	-
Total PTE of Entire Source	156.32	91.17	0.09	14.99	99.00	12.60	18,102.37	6.26	4.09 Ethylene Glycol
Title V Major Source Thresholds	NA	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	100,000	NA	NA
Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA

- = negligible
* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
(a) VOC emissions are included under a combined VOC usage limitation.
(b) Overall PM10 and PM2.5 emissions limits are specified for the Clark Air Mist Eliminators or Exhaust Fan EF-19, which control several processes.
** The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted).

	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)								
Process/ Emission Unit	PM	PM10, PM2.5	SO_2	NOx	VOC	CO	GHG as CO_2e**	Total HAPs	Worst Single HAP
NSK Corporation Natural Gas Combustion	0.18	0.72	0.06	9.42	0.52	7.91	11,367.06	0.18	-
NSK Precision America Natural Gas Combustion	0.11	0.42	0.03	5.58	0.31	4.69	6,735.31	0.11	-
NSK Corporation Wet Machining					98.18 (a)			5.98	4.09 Ethylene Glycol
Aerostokes Mist Collectors	22.56	22.56	-	-		-	-		
Exhaust Fan EF-19 (b)	22.56	22.56	-	-		-	-		
Clark Air Unit Mist Eliminators (b)	22.56	22.56	-	-		-	-		
NSK Precision America Wet Machining	21.93	21.93	-	-		-	-		
Spray Coating	0.43	0.43	-	-		-	-		
HUB I Rust Preventative	-	-	-	-		-	-		
HUB III Rust Preventative	-	-	-	-		-			
Taper Roller Rust Preventative	-	-	-	-		-			
Conveyorized Degreasers	-	-	-	-		-			
Dip Coating	-	-	-	-		-	-		
Cold Cleaner Degreasers	-	-	-	-		-	-		
Packing Process	-	-	-	-		-	-		
NSK Hub Plant – Wet Grinders (controlled by Clark Air Mist Eliminators or Exhaust Fan EF-19)	(b)	(b)	-	-		-	-		
NSK Hub Plant Superfinish wet machines (controlled by Clark Air Mist Eliminators or Exhaust Fan EF-19)	(b)	(b)	-	-		-			
NSK Hub Plant – Rust Preventive Lines (controlled by Clark Air Unit mist eliminators or Exhaust Fan EF-19)	(b)	(b)	-	-		-	-		
NSK Hub Plant - Superfinish wash degreasing (no control)	-	-	-	-		-	-		
NSK Hub Plant – Parts wash process, (controlled by Clark Air Units or Exhaust Fan EF-19)	(b)	(b)	-	-		-	-		
NPA - Shaft turning	-	-	-	-		-	-		
NPA -Dip coating tank	-	-	-	-		-	-		
NPA- Dip tanks cold cleaner	-	-	-	-		-	-		
Roadways (fugitive)	1.43	0.28	0.04	-	-	-	-	-	-

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)								
	PM	PM10, PM2.5	SO_2	NOx	VOC	CO	GHG as CO_2e**	Total HAPs	Worst Single HAP
Total PTE of Entire Source	156.32	91.17	0.09	14.99	99.00	12.60	18,102.37	6.26	4.09 Ethylene Glycol
Title V Major Source Thresholds	NA	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	100,000	NA	NA
Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA

- = negligible
* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
(a) VOC emissions are included under a combined VOC usage limitation.
(b) Overall PM10 and PM2.5 emissions limits are specified for the Clark Air Mist Eliminators or Exhaust Fan EF-19, which control several processes.
** The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

(a) FESOP Status
This amendment to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). The source requirements have not changed.

(b) PSD Minor Source
This amendment to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

(c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the unlimited potential to emit HAPs are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Federal Rule Applicability Determination

New Source Performance Standards (NSPS) (40 CFR 60 and 326 IAC 12)

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this proposed administrative amendment.

National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 61/63) (326 IAC 14/20)

(b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Halogenated Solvent Cleaning, 40 CFR 63.460, Subpart T, are not included in this permit, since the source does not use any solvent containing methylene chloride (CAS No. 75–09–2), perchloroethylene (CAS No. 127–18–4), trichloroethylene (CAS No. 79–01–6), 1,1,1-trichloroethane (CAS No. 71–55–6), carbon tetrachloride (CAS No. 56–23–5) or chloroform (CAS No. 67–66–3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent. Therefore, the requirements of 40 CFR 63, Subpart T do not apply to this revision.

(c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63.3880, Subpart MMMM (326 IAC 20-80), are not included in the permit, since this source is not a major source, located at a major source, or part of a major source of emissions of HAP. Therefore, the requirements of 40 CFR 63, Subpart MMMM do not apply to this revision.

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63.11169, Subpart HHHHHH, are not included in the permit, since this source does not perform Paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl), Autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations, or spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment. Therefore, the requirements of 40 CFR 63, Subpart HHHHHH do not apply to this revision.

(e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Nine Metal Fabrication and Finishing Source Categories, 40 CFR 63.11514, Subpart XXXXXX, are not included in the permit, since the source is not primarily engaged in operations which are classified in one of the nine source categories listed in this NESHAP. Therefore, the requirements of 40 CFR 63, Subpart XXXXXX do not apply to this revision.

(f) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit administrative amendment.

Compliance Assurance Monitoring (CAM)

(g) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the proposed revision:

(a) 326 IAC 2-8-4 (FESOP)
This amendent to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

(b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

(c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the new units is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.

(d) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

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

(1) 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.

(2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

(g) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

(h) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is still not subject to the requirements of 326 IAC 6-5, because fugitive emissions remain less than 25 tons per year.

Wet Grinding Machines and Turning Machines

(i) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the listed emission units shall not exceed the listed pounds per hour when operating at a process weight rate listed in the table below in tons per hour.

Process	Emission Units	Process Weight Rate (tons/hr)	Particulate Emissions (lbs/hr)
NSK Corporation Plant			
G1 Grinding	EU-G1-08 through EU-G1-10	0.34 (each)	2.00 (each)
Taper Roller Grinding	EU-TRG-17 through EU-TRG-24	0.20 (each)	1.39 (each)
Taper Roller Superfinish Grinding	EU-SFTR-09 through EU-SFTR-12	0.07 (each)	0.69 (each)
NSK Precision America, Inc. Plant			
Nut turning wet grinding machines	EU-NPAT-29 and EU-NPAT-30	0.06 (each)	0.62 (each)
Shaft tuning wet grinding machines	EU-NPAT-30 and EU-NPAT-31	0.06 (each)	0.62 (each)
Nut thread wet grinding machine	EU-NPAG-34	0.05	0.551

The pound per hour limitation was calculated with the following equation:

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

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

The Clark Air Mist Eliminators or Exhaust Fan EF-19 shall be in operation at all times the G1 Grinding Machines, Taper Roller Grinding Machines, Taper Roller Superfinish Grinding Machines,

Nut Turning Wet Grinding Machines, Shaft Turning Wet Grinding Machines and Nut Thread Wet Grinding Machines are in operation, in order to comply with this limit.

(j) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
326 IAC 8-1-6 does not apply to the following units, because the unlimited VOC potential emissions from each of the identified units is less than twenty-five (25) tons per year:

(1) The three (3) wet grinding machines, identified as EU-G1-08 through EU-G1-10.

(2) The eight (8) taper roller grinders, identified as EU-TRG-17 through EU-TRG-24.

(3) The Four (4) taper roller superfinish grinders, identified as EU-SFTR-09 through EU-SFTR-12.

(4) The two (2) shaft turning wet machines, identified as EU-NPAT-30 and EU-NPAT-31.

(5) Two (2) nut turning wet machines, identified as EU-NPAT-29 and EU-NPAT-32.

(6) One (1) nut thread wet grinding machine, identified as EU-NPAG-34.

Painting Process (EU-PNT-11)

(k) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(15), the Painting Process (EU-PNT-11) is exempt from the requirements of 326 IAC 6-3-2(d) since this process uses less than five (5) gallons of coating per day.

(l) 326 IAC 8-2 (Surface Coating Emissions Limits)
The Painting Process (EU-PNT-11) coats miscellaneous metal parts, however, emissions from coating metal are less than fifteen (15) pounds per day. Therefore, the requirements of 326 IAC 8-2-9 (Misceallaneous Metal Coating) are not applicable.

Tapper Roller Rust Prevention (EU-TRRP-04 and EU-TRRP-05)

(m) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The requirements for 326 IAC 6-3-2 (Particulate Emission Limitations, Work Practices, and Control Technologies) are not being included for the Taper Roller Rust Preventative operation since these processes do not have the potential to emit particulate matter emissions.

(o) 326 IAC 8-2 (Surface Coating Emissions Limits)
The VOC usage for the Taper Roller Rust Preventative (EU-TRRP-04 and EU-TRRP-05) process shall be less than 15.0 pounds per day each. This will render the requirements of 326 IAC 8-2-9 (Miscellaneous Coating Operations) not applicable.

Parts Washer (EU-PW-50 through EU-PW-55)

(p) 326 IAC 8-3-4 (Conveyorized Degreaser Control Equipment and Operating Requirements)
Pursuant to 326 IAC 8-3-1(c)(2), 326 IAC 8-3-4 applies because the source operates a

conveyorized cold cleaning degreaser that was constructed after July 1, 1990.

Cleaning Process (EU-NPACL-10 through EU-NPACL-15)

(q) 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment And Operating Requirements)
Pursuant to 326 IAC 8-3-1(c)(2), 326 IAC 8-3-2 applies, because the source operates a cold cleaning degreaser that was constructed after July 1, 1990.

Compliance Determination, Monitoring and Testing Requirements

(a) The compliance determination and monitoring requirements applicable to this proposed administrative amendment are as follows:

(1) Compliance with the VOC content and input limitations for the below listed emission units 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 the copies of the "as supplied" and "as applied" VOC data sheets.

Processes	Controls	Exhaust IDs	Emission Unit IDs
NSK Corporation Hub Plant			
G1 Grinding	Clark Air Units	inside building	EU-G1-08 through EU-G1-10
Taper Roller Grinding	Clark Air or Exhaust Fan EF-19	EP-18 or inside building	EU-TRG-17 through EU-TRG-24
Superfinish New Concept	Clarck Air Units	inside building	EU-SFNC-16 and EU-SFNC-17
Superfinish Tapper Roller	Exhaust Fan EF-19	EP-18	EU-SFTR-09 through EU-SFTR-12
Painting Process	Clark Air Unit	inside building	EU-PNT-11
Taper Roller Rust Prevention	Exhaust Fan EF-19	EF-18	EU-TRRP-04 and EU-TRRP-05
Parts Wash, Rough Wash, Finish Wash	Clark Air or Exhaust Fan EF-19	EP-18 or inside building	EU-PW-50 through EU-PW-55
Rust Preventive Process	Clark Air or Exhaust Fan EF-19	EP-18 or inside building	EU-TRRP-02, EU-TRRP-03
NSK Precision America, Inc. Plant			
Turning	N/A	inside building	EU-NPAT-29 through EU-NPAT-32
Grinding Operation	N/A	inside building	EU-NPAG-34
Cleaning Process	N/A	Internal	EU-NPACL-10 through EU-NPACL-15

(2) If the amount of VOC in the waste shipped offsite for recycling or disposal is deducted from the monthly VOC input reported, the Permittee shall determine the VOC content of the waste shipped offsite using one or a combination of the following methods:

(i) On-site sampling

(A) VOC content shall be determined pursuant to 326 IAC 8-1-4(a)(3) by EPA Reference Method 24 and the sampling procedures in 326 IAC 8-1-4 or other methods as approved by the Commissioner.

(B) A representative sample of the VOC containing waste to be shipped offsite shall be analyzed.

(C) If multiple waste streams are collected and bulked separately, a sample

shall be collected and analyzed from each waste stream.

(D) A new representative sample shall be collected and analyzed whenever a change or changes occur(s) that could result in a cumulative 10% or

more decrease in the VOC content of the VOC containing waste. Such change could include, but is not limited to, the following:

(i) A change in VOC material usage selection or formulation, as supplied or as applied, or

(ii) An operational change in the VOC material usage application or cleanup operations.

The new VOC content shall be used in calculating the amount of VOC in waste shipped offsite, starting with the date that the change occurred. The sample shall be collected and analyzed within 30 days of the change.

(ii) Certified Waste Report: The VOC reported by analysis of an offsite waste processor may be used, provided the report certifies the amount of VOC in the waste.

(iii) Minimum Assumed VOC content: The VOC content of the waste shipped offsite may be assumed to be equal to the VOC content of the material with the lowest VOC content that could be present in the waste, as determined using the as supplied" and "as applied" VOC data sheets, for each month.

(3) IDEM reserved the right to request a representative sample of the VOC-containing waste stream and conduct an analysis for VOC content.

(4) Compliance with the VOC input limitation associated with the emission units in the table above shall be determined within 30 days of the end of each month. This shall be based on the total volatile organic compound input for the previous month, minus the amount of VOC in the waste shipped offsite for recycling or disposal, and adding it to the previous 11 months total VOC input, minus the amount of VOC in the waste shipped offsite for recycling or disposal, so as to arrive at VOC input for the most recent twelve (12) consecutive month period.

(5) The VOC input for a month shall be calculated using the following equation:

VOC input = SCL - SR

Where:

SCL = the total amount of VOC containing materials, in tons, including coatings, from the source; and

SR = the total amount of VOC containing materials, in tons, shipped out for either recycling or disposal, including coatings, from the source.

(b) There are no testing requirements applicable to this source.

Proposed Changes

The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

NSK Corporation Hub Plant

(a) One (1) Grinding Operation, identified as G1 Grinding, consisting of:

(1) Three (3) wet grinding machines, identified as EU-G1-01 through EU-G1-03, constructed in 1989 through 1994, respectively, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(2) Three (3) wet grinding machines, identified as EU-G1-04 through EU-G1-06, constructed in 1989 through 2010, respectively, utilizing no control devices, and exhausting within the building.

(3) Three (3) wet grinding machines, identified as EU-G1-08 through EU-G1-10, approved for construction in 2013, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(b) One (1) Grinding Operation, identified as G2 Grinding, consisting of forty-two (42) wet grinding machines, divided into three sections HUB I, HUB II, and HUB III, with emission units identified as EU-G2-01 through EU-G2-08, and EU-G2-10 through EU-G2-~~43~~**18**, **EU-G2-21, EU-G2-22, EU-G2-24, EU-G2-25, EU-G2-30 through EU-G2-41 and EU-G2-43** constructed in 1990 through 2010, utilizing Aerostokes mist eliminators for particulate control, and exhausting through vents EP-17 or EP-18.

(c) One (1) Grinding Operation, identified as New Concept Grinding, constructed in 2009, consisting of twenty-four (24) wet grinding machines, identified as EU-NCG-01 through EU-NCG-08, and EU-NCG-10 through EU-NCG-25, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(d) One (1) grinding operation, identified as Taper Roller Grinding, consisting of the following:

(1) eight (8) wet grinding machines, constructed in 2009, identified as EU-TRG-01 through EU-TRG-08, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building**;**

(2) Two (2) taper roller grinders, identified as EU-TRG-09 and EU-TRG-13, approved for construction in 2011, utilizing Exhaust Fan EF-19 for control, exhausting through Vent EP-18;

(3) Six (6) taper roller grinders, identified as EU-TRG-10, EU-TRG-11, EU-TRG-12, and EU-TRG-14 through EU-TRG-16, ~~approved for construction~~ **constructed** in 2011, utilizing Clark Air #8 Mist Eliminators for control, exhausting within the building.

(4) Eight (8) taper roller grinders, identified as EU-TRG-17 through EU-TRG-24, approved for construction in 2013, utilizing Exhaust Fan EF-19 for control (for EU-TRG-17), exhausting through vent EP-19, Clark Air #8 Mist Eliminators for control (for EU-TRG-18 through EU-TRG-20), exhausting within the building, and Clark Air #9 Mist Eliminators for control (for EU-TRG-21 through EU-TRG-24), exhausting within the building.

(e) One (1) superfinish operation, identified as Superfinish G2, constructed in 1990 through 2010, consisting of twenty-five (25) wet machining units, identified as EU-SFG2-01 through EU-SFG2-04, EU-SFG2-07, EU-SFG2-09 through EU-SFG2-12, EU-SFG2-14 through **EU-SFG2-16,** EU-SFG2-18, EU-SFG2-~~20~~**21, EU-SFG2-24,** EU-SFG2-25, and EU-SFG2-27 through EU-SFG2-31, utilizing Aerostokes mist eliminators for particulate control, exhausting through vents EP-17 or EP-18.

(f) One (1) superfinish operation, identified as Superfinish New Concept, ~~constructed in 1990 through 2010~~, consisting of ~~fourteen (14~~) **sixteen (16)** wet machining units, ~~identified as EU-SFNC-01 through EU-SFNC-03, and EU-SFNC-05 through EU-SFNC-15~~, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building:

(1) fourteen (14) wet machining units, identified as EU-SFNC-01 through EU-SFNC-03, constructed in 1990 through 2010 and EU-SFNC-05 through EU-SFNC-15, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(2) Two (2) wet machining units, identified as EU-SFNC-16 and EU-SFNC-17, approved for construction in 2013, utilizing Clark Air Unit #1 and #2, respectively, mist eliminators for particulate control, and exhausting within the building.

(g) One (1) superfinish operation, identified as Superfinish Taper Roller, consisting of the following:

(1) three (3) wet machining units, constructed in 2009, identified as EU-SFTR-01 through EU-SFTR-03, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building**;**

(2) ~~In its t~~**T**aper roller superfinish operation, ~~five (5) wet machining units, identified as EU-SFTR-04 through EU-SFTR-08, approved for construction in 2011~~, as follows:

(A) One (1) taper roller superfinish grinder, identified as EU-SFTR-04, **constructed in 2011,** utilizing Clark Air #9 Mist eliminators for particulate control, and exhausting within the building;

(B) Two (2) taper roller superfinish grinders, identified as EU-SFTR-06 and EU-SFTR-08, **constructed in 2011,** utilizing Clark Air #8 Mist eliminators for particulate control, and exhausting within the building;

(C) Two (2) taper roller superfinish grinders, identified as EU-SFTR-05 and EU-SFTR-07, **constructed in 2011,** utilizing Exhaust Fan EF-19 for control, exhausting through Vent EP-18.

(D) Four (4) taper roller superfinish grinders, identified as EU-SFTR-09 through EU-SFTR-12, approved for construction in 2013 utilizing Exhaust Fan EF-19 for control (EU-SFTR-09 and EU-SFTR-11), exhausting through Vent EP-18, EU-SFTR-10 , utilizing Clark Air #8 Mist eliminators for particulate control, and exhausting within the building, and EU-SFTR-12 , utilizing Clark Air #9 Mist eliminators for particulate control, and exhausting within the building.

(h) ***

(i) ***

(j) One (1) broaching process, identified as Broaching, consisting of ~~two (2)~~ **one (1)** wet broaching unit~~s~~, identified as EU-BR-01 ~~and EU-BR-02~~, constructed in 2002 ~~through 2010, respectively~~, utilizing no control device~~s~~, and exhausting within the building.

(k) One (1) painting process, identified as Painting, consisting of:

(1) ~~Seven (7)~~ **Five (5)** paint lines, identified as EU-PNT-01 through EU-PNT-~~07~~**05**, constructed in 2009, utilizing Clark Air Unit mist eliminators as particulate control, and exhausting within the building.

(2) Three (3) paint lines, identified as EU-PNT-08 through EU-PNT-10, constructed in 1990 through 2010, utilizing no control devices, and exhausting within the building.

(3) One (1) paint line, identified as EU-PNT-11, approved for construction in 2013, Clark Air Unit #9 mist eliminator for particulate control, and exhausting within the building.

(l) ***

~~(m) One (1) rust preventative application operation, identified as Hub II – Assembly Rust Preventative, constructed in 1992 and 1996, consisting of two (2) coating lines, identified as EU-H2RP-01 and EU-H2RP-02, utilizing Clark Air Unit mist eliminators as particulate control, and exhausting within the building.~~

~~(n)~~**(m)** One (1) rust preventative application operation, identified as Hub III – Assembly / New Concept Rust Preventative, constructed in 1995 through 2010, consisting of nine (9) coating lines, identified as EU-H3/NCRP-01 through EU-H3/NCRP-09, utilizing Clark Air Unit mist eliminators as particulate control, and exhausting within the building.

~~(o)~~**(n)** One (1) rust preventative application operation, identified as Taper Roller Rust Preventative, consisting of the following:

(1) one (1) coating line, constructed in 1990, identified as EU-TRRP-01, utilizing a Clark Air Unit #8 mist eliminator as particulate control, and exhausting within the building**;**

(2) two (2) coating lines, ~~approved for construction~~ **constructed** in 2011, identified as EU-TRRP-02 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18, and EU-TRRP-03, utilizing Clark Air Unit #9 mist eliminator for control, and exhausting within the building.

(3) two (2) coating lines, approved for construction in 2013, identified as EU-TRRP-04 and EU-TRRP-05 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18.

~~(p)~~**(o)** Conveyorized Degreasers including:

(1) One (1) superfinish wash operation conveyorized degreasing operation, consisting of the following:

(A) conveyorized degreasing operation, identified as Superfinish Wash, constructed in 1990 through 2010, consisting of ~~twenty-five (25)~~ **twenty-**

two (22) conveyorized degreasing units, identified as EU-SFW-01 through EU-SFW-04, EU-SFW-08 through EU-SFW-11, EU-SFW-13 through**EU-SFW-16,** EU-SFW-18, EU-SFW-~~20~~**21, EU-SFW-22, EU-SFW-24,** ~~through~~ EU-SFW-25, and EU-SFW-27 through EU-SFW-31, utilizing no control device, and exhausting within the building**;**

(B) conveyorized degreasing operation, consisting of eight (8) conveyorized degreasing units, ~~approved for construction~~ **constructed** in 2011, identified as EU-SFW-32 through EU-SFW-39, utilizing no control device, and exhausting within the building.

(2) One (1) parts wash conveyorized degreasing process, including three operations identified as Parts Wash, Rough Wash, and Finish Wash, consisting of the following:

(A) conveyorized degreasing process, constructed in 1990 through 2008, collectively consisting of ~~forty-four (44)~~**thirty-six (36)** conveyorized degreasing units, identified as EU-PW-01 through **EU-PW-04, EU-PW-06 through EU-PW-08, EU-PW-15 through EU-PW-20, EU-PW-22 through EU-PW-27, EU-PW-30 through EU-PW-35,** EU-PW-37, EU-PW-39 through EU-PW-41, EU-PW-43, and EU-PW-44, utilizing Clark Air Units #8 mist eliminators as control, and exhausting within the building**;**

(B) three (3) conveyorized degreasing units, ~~approved for construction~~ **constructed** in 2011, identified as EU-PW-47 and EU-PW-48, utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18, and unit EU-PW-49, utilizing Clark Air Unit #9 mist eliminators for control, and exhausting within the building.

(C) Six (6) conveyorized degreasing units, approved for construction in 2013, identified as EU-PW-50 through EU-PW-55, utilizing Clark Air Units #4 (EU-PW-52) mist eliminators, Clark Air Units #6 (EU-PW-51), Clark Air Units #8 (EU-PW-50), Clark Air Units #9 (EU-PW-53 and EU-PW-54) as control, and exhausting within the building, and EU-PW-55 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18

(3) One (1) ball wash conveyorized degreasing process, identified as Ball Wash, constructed in 2001~~,~~ **and** 1993, ~~1996, and~~ ~~2008~~, consisting of ~~four (4)~~ **two (2)** conveyorized degreasing units, identified as EU-BW-01 **and EU-BW-03** ~~through EU-BW-04~~, utilizing no control device, and exhausting within the building.

~~(q)~~**(p)** Miscellaneous process tanks including:

***

NSK Precision America, Inc. Plant

(a) One (1) cutting process, identified as Cutting, constructed in 1995 through 2009, consisting of:

(1) ~~Seven (7)~~ **Six (6)** wet machining units, identified as EU-NPACT-01**,** ~~through~~ EU-NPACT-03, and EU-NPACT-05 through EU-NPACT-08, utilizing no control devices, and exhausting within the building.

***

(b) One (1) turning process, identified as Turning, constructed in 1994 through 2011, consisting of:

(1) ~~Eleven (11)~~ **Ten (10)** shaft turning wet machining units, identified as EU-NPAT-01**, EU-PAT-02, EU-PAT-04** through EU-NPAT-11, utilizing no control devices, and exhausting within the building.

***

(5) One (1) shaft turning wet machine unit, ~~approved for construction~~ **constructed** in 2011, identified as EU-NPAT-28, utilizing no control device, and exhausting within the building.

(6) Two (2) shaft turning wet machines, approved for construction in 2013, identified as EU-NPAT-30 and EU-NPAT-31, utilizing no control device, and exhausting within the building.

(7) Two (2) nut turning wet machines, approved for construction in 2013, identified as EU-NPAT-29 and EU-NPAT-32, EU-NPAT-29 utilizes on-board mist collector (FX-900) for control and EU-NPAT-32 utilizes no control device, and exhausting within the building.

(c) One (1) grinding operation, constructed in 1993 through 2005, consisting of:

***

(8) One (1) nut thread wet grinding machine, identified as EU-NPAG-34, approved for construction in 2013, utilizing the central mist collectors (OMC) for particulate control, exhausting inside the building.

(d) One (1) dip process, identified as Dip Process, consisting of the following:

(1) ***

(2) Dip process, one (1) dip tank, ~~approved for construction~~ **constructed** in 2011, identified as EU-NPAD-05, utilizing no control device, and exhausting within the building.

(e) One (1) cold cleaner degreasing process, identified as Cleaning Process, consisting of the following:

(1) Cold cleaner degreasing process, constructed in 1993, 2003, and 2006, consisting of three (3) dip tanks, identified as EU-NPACL-01 through EU-NPACL-03; exhausting within the building**;**

(2) Cold cleaner degreasing process, consisting of six (6) dip tanks, ~~approved for construction~~ **constructed** in 2011, identified as EU-NPACL-04 through EU-NPACL-09, utilizing no control devices, and exhausting within the building.

(3) Cold cleaner degreasing process, consisting of six (6) dip tanks, approved for construction in 2013, identified as EU-NPACL-10 through EU-NPACL-15, utilizing no control devices, and exhausting within the building.

***

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

NSK Corporation Hub Plant

(a) One (1) Grinding Operation, identified as G1 Grinding, consisting of:

(1) Three (3) wet grinding machines, identified as EU-G1-01 through EU-G1-03, constructed in 1989 through 1994, respectively, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(2) Three (3) wet grinding machines, identified as EU-G1-04 through EU-G1-06, constructed in 1989 through 2010, respectively, utilizing no control devices, and exhausting within the building.

(3) Three (3) wet grinding machines, identified as EU-G1-08 through EU-G1-10, approved for construction in 2013, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(b) One (1) Grinding Operation, identified as G2 Grinding, consisting of forty-two (42) wet grinding machines, divided into three sections HUB I, HUB II, and HUB III, with emission units identified as EU-G2-01 through EU-G2-08, and EU-G2-10 through EU-G2-~~43~~**18**, **EU-G2-21, EU-G2-22, EU-G2-24, EU-G2-25, EU-G2-30 through EU-G2-41 and EU-G2-43** constructed in 1990 through 2010, utilizing Aerostokes mist eliminators for particulate control, and exhausting through vents EP-17 or EP-18.

(c) One (1) Grinding Operation, identified as New Concept Grinding, constructed in 2009, consisting of twenty-four (24) wet grinding machines, identified as EU-NCG-01 through EU-NCG-08, and EU-NCG-10 through EU-NCG-25, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(d) One (1) grinding operation, identified as Taper Roller Grinding, consisting of the following:

(1) eight (8) wet grinding machines, constructed in 2009, identified as EU-TRG-01 through EU-TRG-08, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building**;**

(2) Two (2) taper roller grinders, identified as EU-TRG-09 and EU-TRG-13, approved for construction in 2011, utilizing Exhaust Fan EF-19 for control, exhausting through Vent EP-18;

(3) Six (6) taper roller grinders, identified as EU-TRG-10, EU-TRG-11, EU-TRG-12, and EU-TRG-14 through EU-TRG-16, ~~approved for construction~~ **constructed** in 2011, utilizing Clark Air #8 Mist Eliminators for control, exhausting within the building.

(4) Eight (8) taper roller grinders, identified as EU-TRG-17 through EU-TRG-24, approved for construction in 2013, utilizing Exhaust Fan EF-19 for control (for EU-TRG-17), exhausting through vent EP-19, Clark Air #8 Mist Eliminators for control (for EU-TRG-18 through EU-TRG-20), exhausting within the building, and Clark Air #9 Mist Eliminators for control (for EU-TRG-21 through EU-TRG-24), exhausting within the building.

(e) One (1) superfinish operation, identified as Superfinish G2, constructed in 1990 through 2010, consisting of twenty-five (25) wet machining units, identified as EU-SFG2-01 through EU-SFG2-04, EU-SFG2-07, EU-SFG2-09 through EU-SFG2-12, EU-SFG2-14 through **EU-SFG2-**

16, EU-SFG2-18, EU-SFG2-~~20~~**21, EU-SFG24,** EU-SFG2-25, and EU-SFG2-27 through EU-SFG2-31, utilizing Aerostokes mist eliminators for particulate control, exhausting through vents EP-17 or EP-18.

(f) One (1) superfinish operation, identified as Superfinish New Concept, ~~constructed in 1990 through 2010~~, consisting of ~~fourteen (14~~) **sixteen (16)** wet machining units, ~~identified as EU-SFNC-01 through EU-SFNC-03, and EU-SFNC-05 through EU-SFNC-15~~, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building:

(1) fourteen (14) wet machining units, identified as EU-SFNC-01 through EU-SFNC-03, constructed in 1990 through 2010 and EU-SFNC-05 through EU-SFNC-15, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building.

(2) Two (2) wet machining units, identified as EU-SFNC-16 and EU-SFNC-17, approved for construction in 2013, utilizing Clark Air Unit #1 and #2, respectively, mist eliminators for particulate control, and exhausting within the building.

(g) One (1) superfinish operation, identified as Superfinish Taper Roller, consisting of the following:

(1) three (3) wet machining units, constructed in 2009, identified as EU-SFTR-01 through EU-SFTR-03, utilizing Clark Air Unit mist eliminators for particulate control, and exhausting within the building**;**

(2) ~~In its t~~**T**aper roller superfinish operation, ~~five (5) wet machining units, identified as EU-SFTR-04 through EU-SFTR-08,~~ ~~approved for construction in 2011~~, as follows:

(A) One (1) taper roller superfinish grinder, identified as EU-SFTR-04, **constructed in 2011,** utilizing Clark Air #9 Mist eliminators for particulate control, and exhausting within the building;

(B) Two (2) taper roller superfinish grinders, identified as EU-SFTR-06 and EU-SFTR-08, **constructed in 2011,** utilizing Clark Air #8 Mist eliminators for particulate control, and exhausting within the building;

(C) Two (2) taper roller superfinish grinders, identified as EU-SFTR-05 and EU-SFTR-07, **constructed in 2011,** utilizing Exhaust Fan EF-19 for control, exhausting through Vent EP-18.

(D) Four (4) taper roller superfinish grinders, identified as EU-SFTR-09 through EU-SFTR-12, approved for construction in 2013 utilizing Exhaust Fan EF-19 for control (EU-SFTR-09 and EU-SFTR-11), exhausting through Vent EP-18, EU-SFTR-10 , utilizing Clark Air #8 Mist eliminators for particulate control, and exhausting within the building, and EU-SFTR-12 , utilizing Clark Air #9 Mist eliminators for particulate control, and exhausting within the building.

(h) ***

(i) ***

(j) One (1) broaching process, identified as Broaching, consisting of ~~two (2)~~ **one (1)** wet broaching units, identified as EU-BR-01 ~~and EU-BR-02~~, constructed in 2002 ~~through 2010, respectively~~, utilizing no control devices, and exhausting within the building.

(k) One (1) painting process, identified as Painting, consisting of:

(1) ~~Seven (7)~~ **Five (5)** paint lines, identified as EU-PNT-01 through EU-PNT-~~07~~**05**, constructed in 2009, utilizing Clark Air Unit mist eliminators as particulate control, and exhausting within the building.

(2) Three (3) paint lines, identified as EU-PNT-08 through EU-PNT-10, constructed in 1990 through 2010, utilizing no control devices, and exhausting within the building.

(3) One (1) paint line, identified as EU-PNT-11, approved for construction in 2013, Clark Air Unit #9 mist eliminator for particulate control, and exhausting within the building.

(l) ***

~~(m) One (1) rust preventative application operation, identified as Hub II – Assembly Rust Preventative, constructed in 1992 and 1996, consisting of two (2) coating lines, identified as EU-H2RP-01 and EU-H2RP-02, utilizing Clark Air Unit mist eliminators as particulate control, and exhausting within the building.~~

~~(n)~~**(m)** One (1) rust preventative application operation, identified as Hub III – Assembly / New Concept Rust Preventative, constructed in 1995 through 2010, consisting of nine (9) coating lines, identified as EU-H3/NCRP-01 through EU-H3/NCRP-09, utilizing Clark Air Unit mist eliminators as particulate control, and exhausting within the building.

~~(o)~~**(n)** One (1) rust preventative application operation, identified as Taper Roller Rust Preventative, consisting of the following:

(1) one (1) coating line, constructed in 1990, identified as EU-TRRP-01, utilizing a Clark Air Unit #8 mist eliminator as particulate control, and exhausting within the building**;**

(2) two (2) coating lines, ~~approved for construction~~ **constructed** in 2011, identified as EU-TRRP-02 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18, and EU-TRRP-03, utilizing Clark Air Unit #9 mist eliminator for control, and exhausting within the building.

(3) two (2) coating lines, approved for construction in 2013, identified as EU-TRRP-04 and EU-TRRP-05 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18.

~~(p)~~**(o)** Conveyorized Degreasers including:

(1) One (1) superfinish wash operation conveyorized degreasing operation, consisting of the following:

(A) conveyorized degreasing operation, identified as Superfinish Wash, constructed in 1990 through 2010, consisting of ~~twenty-five (25)~~ **twenty-two (22)** conveyorized degreasing units, identified as EU-SFW-01 through EU-SFW-04, EU-SFW-08 through EU-SFW-11, EU-SFW-13 through**EU-SFW-16,** EU-SFW-18, EU-SFW-~~20~~**21, EU-SFW-22, EU-SFW-24,** ~~through~~ EU-SFW-25, and EU-SFW-27 through EU-SFW-31, utilizing no control device, and exhausting within the building**;**

(B) conveyorized degreasing operation, consisting of eight (8) conveyorized

degreasing units, ~~approved for construction~~ **constructed** in 2011, identified as EU-SFW-32 through EU-SFW-39, utilizing no control device, and exhausting within the building.

(2) One (1) parts wash conveyorized degreasing process, including three operations identified as Parts Wash, Rough Wash, and Finish Wash, consisting of the following:

(A) conveyorized degreasing process, constructed in 1990 through 2008, collectively consisting of ~~forty-four (44)~~**thirty-six (36)** conveyorized degreasing units, identified as EU-PW-01 through **EU-PW-04, EU-PW-06 through EU-PW-08, EU-PW-15 through EU-PW-20, EU-PW-22 through** EU-PW-37, EU-PW-39 through EU-PW-41, EU-PW-43, and EU-PW-44, utilizing Clark Air Units #8 mist eliminators as control, and exhausting within the building**;**

(B) three (3) conveyorized degreasing units, ~~approved for construction~~ **constructed** in 2011, identified as EU-PW-47 and EU-PW-48, utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18, and unit EU-PW-49, utilizing Clark Air Unit #9 mist eliminators for control, and exhausting within the building.

(C) Six (6) conveyorized degreasing units, approved for construction in 2013, identified as EU-PW-50 through EU-PW-55, utilizing Clark Air Units #4 (EU-PW-52) mist eliminators, Clark Air Units #6 (EU-PW-51), Clark Air Units #8 (EU-PW-50), Clark Air Units #9 (EU-PW-53 and EU-PW-54) as control, and exhausting within the building, and EU-PW-55 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18

(3) One (1) ball wash conveyorized degreasing process, identified as Ball Wash, constructed in 2001, 1993, 1996, and 2008, consisting of ~~four (4)~~ **two (2)** conveyorized degreasing units, identified as EU-BW-01 **and EU-BW-03** ~~through EU-BW-04~~, utilizing no control device, and exhausting within the building.

~~(q)~~**(p)** Miscellaneous process tanks including:

***

NSK Precision America, Inc. Plant

(a) One (1) cutting process, identified as Cutting, constructed in 1995 through 2009, consisting of:

(1) ~~Seven (7)~~ **Six (6)** wet machining units, identified as EU-NPACT-01**,** ~~through~~ EU-NPACT-03, and EU-NPACT-05 through EU-NPACT-08, utilizing no control devices, and exhausting within the building.

***

(b) One (1) turning process, identified as Turning, constructed in 1994 through 2011, consisting of:

(1) ~~Eleven (11)~~ **Ten (10)** shaft turning wet machining units, identified as EU-NPAT-01**, EU-PAT-02, EU-PAT-04** through EU-NPAT-11, utilizing no control devices, and exhausting within the building.

***

(5) One (1) shaft turning wet machine unit, ~~approved for construction~~ **constructed** in 2011, identified as EU-NPAT-28, utilizing no control device, and exhausting within the building.

(6) Two (2) shaft turning wet machines, approved for construction in 2013, identified as EU-NPAT-30 and EU-NPAT-31, utilizing no control device, and exhausting within the building.

(7) Two (2) nut turning wet machines, approved for construction in 2013, identified as EU-NPAT-29 and EU-NPAT-32, EU-NPAT-29 utilizes on-board mist collector (FX-900) for control and EU-NPAT-32 utilizes no control device, and exhausting within the building.

(c) One (1) grinding operation, constructed in 1993 through 2005, consisting of:

***

(8) One (1) nut thread wet grinding machine, identified as EU-NPAG-34, approved for construction in 2013, utilizing the central mist collectors (OMC) for particulate control, exhausting inside the building.

(d) One (1) dip process, identified as Dip Process, consisting of the following:

(1) ***

(2) Dip process, one (1) dip tank, ~~approved for construction~~ **constructed** in 2011, identified as EU-NPAD-05, utilizing no control device, and exhausting within the building.

(e) One (1) cold cleaner degreasing process, identified as Cleaning Process, consisting of the following:

(1) Cold cleaner degreasing process, constructed in 1993, 2003, and 2006, consisting of three (3) dip tanks, identified as EU-NPACL-01 through EU-NPACL-03; exhausting within the building**;**

(2) Cold cleaner degreasing process, consisting of six (6) dip tanks, ~~approved for construction~~ **constructed** in 2011, identified as EU-NPACL-04 through EU-NPACL-09, utilizing no control devices, and exhausting within the building.

(3) Cold cleaner degreasing process, consisting of six (6) dip tanks, approved for construction in 2013, identified as EU-NPACL-10 through EU-NPACL-15, utilizing no control devices, and exhausting within the building.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 FESOP and PSD Minor Limits [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4, the input of volatile organic compounds (VOC), including coatings, to the below listed emission units, minus the VOC containing waste materials shipped out, shall be limited to 98.18 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with this limit, combined with the potential to emit VOC from other emission units at the source, shall limit the VOC from the entire source to less than 100 tons per twelve (12) consecutive month period and render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Processes	Controls	Exhaust IDs	Emission Unit IDs
NSK Corporation Hub Plant			
G1 Grinding	Clark Air Units	Internal	EU-G1-01 through EU-G1-03
	N/A	Internal	EU-G1-04 through EU-G1-06
	Clark Air Units	**Internal**	**EU-G1-08 through EU-G1-10**
G2 Grinding	Aerostokes	EP17 / EP18	EU-G2-01 through EU-G2-08
			EU-G2-10 through **EU-G2-18, EU-G2-21, EU-G2-22, EU-G2-24, EU-G2-25, EU-G2-30 through EU-G2-41,** EU-G2-43
New Concept Grinding	Clark Air Units	Internal	EU-NCG-01 through EU-NCG-08
			EU-NCG-10 through EU-NCG-25
Taper Roller Grinding	Clark Air Units	Internal	EU-TRG-01 through EU-TRG-08, EU-TRG-10, EU-TRG-11,EU-TRG-12, EU-TRG-14 through EU-TRG-16**, EU-TRG-18 through EU-TRG-24**
Taper Roller Grinding	Exhaust Fan EF-19	EP18	EU-TRG-9, EU-TRG-13, **EU-TRG-17**
Superfinish G2	Aerostokes	EP17 / EP18	EU-SFG2-01 through EU-SFG2-04 EU-SFG2-07 EU-SFG2-09 through EU-SFG2-12 EU-SFG2-14 through **EU-SFG2-16,** EU-SFG2-18 ~~EU-SFG2-20~~ **EUSFG2-21,** ~~through~~**, EU-SFG2-24,** EU-SFG2-25\EU-SFG2-27, EU-SFG2-28, EU-SFG2-30
	Clark Air Units	**Internal**	**EU-SFG2-29 and EU-SFG2-31**
Superfinish New Concept	Clark Air Units	Internal	EU-SFNC-01 through EU-SFNC-03
			EU-SFNC-06 through EU-SFNC-08 EU-SFNC-10 through EU-SFNC-15
			EU-SFNC-16, EU-SFNC-17
	Exhaust Fan EF-19	EP18	EU-SFNC-05 and EU-SFNC-09
Superfinish Taper Roller	Clark Air Units	Internal	EU-SFTR-01 through EU-SFTR-**0**4 EU-SFTR-05 ~~and,~~ **EU-SFTR-06,** EU-STFR-08**, EU-SFTR-10, EU-SFTR-12**
	Exhaust Fan EF-19	EP18	~~EU-SFTR-06 and~~ EU-SFTR-07, **EU-SFTR-09, EU-SFTR-11**
FS-4 Turning	N/A	Internal	EU-HTFS-01 through EU-HTFS-05
LU300 Turning	N/A	Internal	EU-HTLU-01 through EU-HTLU-06
Broaching	N/A	Internal	EU-BR-01 ~~and EU-BR-02~~
Painting	Clark Air Units	Internal	EU-PNT-01 through **EU-PNT-05, EU-PNT-11** ~~EU-PNT-07~~
	N/A	Internal	EU-PNT-08 through EU-PNT-10
HUB I - Assembly Rust Preventative	N/A	Internal	EU-H1RP-01 through EU-H1RP-03
~~HUB II - Assembly Rust Preventative~~	~~Clark Air Units~~	~~Internal~~	~~EU-H2RP-01 and EU-H2RP-02~~
HUB III - Assembly / New Concept Rust Preventative	Clark Air Units	Internal	EU-H3/NCRP-01 through EU-H3/NCRP-09
Taper Roller Rust Preventative	Clark Air Unit	Internal	EU-TRRP-01, **EU-TRRP-02** ~~EU-TRRP-03~~
Taper Roller Rust Preventive	Exhaust Fan EF-19	EP18	~~EU-TRRP-02~~, **EU-TRRP-03**
			EU-TRRP-04, EU-TRRP-05
Superfinish Wash	N/A	Internal	EU-SFW-01 through EU-SFW-04
			EU-SFW-08 through EU-SFW-11
			EU-SFW-13 through EU-SFW-18
			EU-SFW-20 through EU-SFW-25

Processes	Controls	Exhaust IDs	Emission Unit IDs
			EU-SFW-27 through EU-SFW-31
Parts Wash, Rough Wash, Finish Wash	Clark Air Units	Internal	EU-PW-01 through **EU-PW-04, EU-PW-06 through EU-PW-08, EU-PW-15 through EU-PW-20, EU-PW-22 through** EU-PW-37
			EU-PW-39 through EU-PW-41
			EU-PW-43 and EU-PW-47**,** ~~through~~ EU-PW-49
			EU-PW-50 through EU-PW-54
	Exhaust Fan EF-19	**EP18**	**EU-PW-48, EU-PW-55**
Ball Wash			EU-BW-01**, EU-BW-03** ~~through EU-BW-04~~
Finish Wash, Ball Wash, Rough Wash - Tanks	N/A	Internal	EU-Tank-02 through EU-Tank-04
Parts Wash and Coolant Tanks	N/A	Internal	EU-Tank-06 through EU-Tank-08
Superfinish Wash Tank	N/A	Internal	EU-Tank-10
Coolant Tanks	N/A	Internal	EU-Tank-12 through EU-Tank-15
NSK Precision America, Inc. Plant			
Cutting	N/A	Internal	EU-NPACT-01 through EU-NPACT-08
	On-Board	Internal	EU-NPACT-09 and EU-NPACT-10
	N/A	Internal	EU-NPACT-11
	Dust Collector	Internal	EU-NPACT-12
	Shop-Vac	Internal	EU-NPACT-13
Turning	N/A	Internal	EU-NPAT-01**, EU-NPAT-02, EU-NPAT-04** through EU-NPAT-11
	On-Board	Internal	EU-NPAT-12 and EU-NPAT-13
	N/A	Internal	EU-NPAT-14 through EU-NPAT-18
	N/A	Internal	EU-NPAT-19 through EU-NPAT-24
	N/A	Internal	EU-NPAT-26 and EU-NPAT-27
	FX-900	**Internal**	**EU-NPAT-29**
	N/A	**Internal**	**EU-NPAT-30 through EU-NPAT-32**
Grinding	On-Board	Internal	EU-NPAG-01 through EU-NPAG-09
	N/A	Internal	EU-NPAG-10 through EU-NPAG-12
	On-Board	Internal	EU-NPAG-27, 28, 31, and 33
	On-Board	Internal	EU-NPAG-13 through EU-NPAG-21
	OMC	EP19	EU-NPAG-22 through EU-NPAG-26
	OMC	EP19	EU-NPAG-29, 30, and 32
	M-90	**Internal**	**EU-NPAG-34**
Dip Process	N/A	Internal	EU-NPAD-01 through EU-NPAD-04
Cleaning Process	N/A	Internal	EU-NPACL-01 through EU-NPACL-09
			EU-NPACL-10 through EU-NPACL-15
Packing Process	N/A	Internal	EU-NPAPK-01

Notes: On-Board = On-board Mist Eliminator; OMC = Central Oil Mist Collectors

D.1.2 FESOP Limits [326 IAC 2-8-4][~~326 IAC 2-2~~][326 IAC 2-1.1-5]

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), and to render the requirements of ~~326 IAC 2-2 (Prevention of Significant Deterioration (PSD))~~ ~~and~~ 326 IAC 2-1.1-5 (Nonattainment New Source Review) not applicable **for PM2.5**, the source shall comply with the following:

(a) Combined PM10 Emissions from the AEROSTOKES mist eliminators, controlling the G2 Grinding and Superfinish G2**,** (NSK Corporation Plant) processes, and exhausting through EP-17 and/or EP-18, shall not exceed 5.15 lbs/hr.

(b) Combined PM2.5 Emissions from the AEROSTOKES mist eliminators, controlling the G2 Grinding and Superfinish G2**,** (NSK Corporation Plant) processes, and exhausting through EP-17 and/or EP-18, shall not exceed 5.15 lbs/hr.

(c) Combined PM10 Emissions from the Clark Air mist eliminators, and the Exhaust Fan EF-19, controlling the Taper Roller grinding, and Taper Roller Superfinish (NSK Corporation

Plant) processes, shall not exceed 5.15 lbs/hr.

(d) Combined PM2.5 Emissions from the Clark Air mist eliminators, and the Exhaust Fan EF-19, controlling the Taper Roller grinding, and Taper Roller Superfinish (NSK Corporation Plant) processes, shall not exceed 5.15 lbs/hr.

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from other emission units at the source, shall limit the PM10 and PM2.5 from the entire source to less than 100 tons per twelve (12) consecutive month period and render 326 IAC 2-7 (Part 70 Permits), ~~326 IAC 2-2 (Prevention of Significant Deterioration (PSD)),~~ and 326 IAC 2-1.1-5 (Nonattainment New Source Review) not applicable.

D.1.3 Volatile Organic Compound (VOC) Limit [326 IAC 8-2-9]

To render the requirements of 326 IAC 8-2-9 (Miscellaneous Coating Operations) not applicable, the owner or operator of this source shall comply with the following:

(a) The VOC usage for the Hub I - Assembly Rust Preventative process (EU-H1RP-01 through EU-H1RP-03) shall be less than 15.0 pounds per day.

~~(b) The VOC usage for the Hub II - Assembly Rust Preventative process (EU-H2RP-01 and EU-H2RP-02) shall be less than 15.0 pounds per day.~~

~~(c)~~**(b)** The VOC usage for the Hub III - Assembly / New Concept Rust Preventative process (EU-H3/NCRP-01 through EU-H3/NCRP-09) shall be less than 15.0 pounds per day.

~~(d)~~**(c)** The VOC usage for the Taper Roller Rust Preventative (EU-TRRP-01) process shall be less than 15.0 pounds per day.

Compliance with these limits **shall** render~~s~~ the requirements of 326 IAC 8-2-9 not applicable

D.1.4 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of following emission units shall not exceed the pound per hour limit listed in the table below:

Process	Emission Units	Process Weight Rate (tons/hr)	Particulate Emissions (lbs/hr)
NSK Corporation Plant			
G1 Grinding	EU-G1-01 through EU-G1-03	0.34 (each)	2.00 (each)
	EU-G1-04	0.21	1.44
	EU-G1-05 and EU-G1-06	0.07 (each)	0.68 (each)
	EU-G1-08 through EU-G1-10	**0.34 (each)**	**2.00 (each)**
G2 Grinding	EU-G2-01 through EU-G2-08	0.07 (each)	0.69 (each)
	EU-G2-10 through EU-G2-39		
	EU-G2-40 and EU-G2-41	0.33 (each)	1.97 (each)
	EU-G2-42	0.22	1.50
	EU-G2-43	0.43	2.32
New Concept Grinding	EU-NCG-01 through EU-NCG-08	0.11 (each)	0.92 (each)
	EU-NCG-10 through EU-NCG-24		
	EU-NCG-25	0.43	2.32
Taper Roller Grinding	EU-TRG-01 through EU-TRG-07**,** EU-TRG-09 through EU-TRG-16	0.03 (each)	0.551 (each)
	EU-TRG-08	0.20	1.39
	EU-TRG-17 through EU-TRG-24	**0.20 (each)**	**1.39 (each)**
Superfinish G2	EU-SFG2-01 through EU-SFG2-04	0.10 (each)	0.85 (each)

Process	Emission Units	Process Weight Rate (tons/hr)	Particulate Emissions (lbs/hr)
	EU-SFG2-07		
	EU-SFG2-09 through EU-SFG2-12		
	EU-SFG2-14 through EU-SFG2-18		
	EU-SFG2-20 through EU-SFG2-25		
	EU-SFG2-27 through EU-SFG2-31		
Superfinish New Concept	EU-SFNC-01 through EU-SFNC-03	0.18 (each)	1.32 (each)
	EU-SFNC-05 through EU-SFNC-15		
Superfinish Taper Roller	EU-SFTR-01 through EU-SFTR-03**,** EU-SFTR-04 through EU-SFTR-08	0.07 (each)	0.66 (each)
	EU-SFTR-09 through EU-SFTR-12	**0.07 (each)**	**0.66 (each)**
FS-4 Turning	EU-HTFS-01 through EU-HTFS-05	0.02 (each)	0.551 (each)
LU300 Turning	EU-HTLU-01 through EU-HTLU-06	0.27 (each)	1.71 (each)
Broaching	EU-BR-01 ~~and EU-BR-02~~	0.27 ~~(each)~~	1.71 ~~(each)~~
NSK Precision America, Inc. Plant			
Cutting	EU-NPACT-01 through EU-NPACT-13	0.15 (each)	1.15 (each)
Turning	EU-NPAT-01 through EU-NPAT-24	0.06 (each)	0.59 (each)
	EU-NPAT-26 and EU-NPAT-27, EU-NPAT-28		
	EU-NPAT-29 through EU-NPAT-32		
Grinding Operation	EU-NPAG-01 through EU-NPAG-32	0.05 (each)	0.551 (each)
	EU-NPAG-34		

The pounds per hour limitation was calculated with the following equation:

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

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

***

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Degreasers
NSK Corporation Hub Plant

~~(p)~~**(o)** Conveyorized Degreasers including:

(1) One (1) superfinish wash operation conveyorized degreasing operation, consisting of the following:

(A) conveyorized degreasing operation, identified as Superfinish Wash, constructed in 1990 through 2010, consisting of ~~twenty-five (25)~~ **twenty-two (22)** conveyorized degreasing units, identified as EU-SFW-01 through EU-SFW-04, EU-SFW-08 through EU-SFW-11, EU-SFW-13 through **EU-SFW-16,** EU-SFW-18, EU-SFW-~~20~~**21, EU-SFW-22, EU-SFW-24,** ~~through~~ EU-SFW-25, and EU-SFW-27 through EU-SFW-31, utilizing no control device, and exhausting within the building**;**

(B) conveyorized degreasing operation, consisting of eight (8) conveyorized degreasing units, ~~approved for construction~~ **constructed** in 2011, identified as EU-SFW-32 through EU-SFW-39, utilizing no control device, and exhausting

within the building.

(2) One (1) parts wash conveyorized degreasing process, including three operations identified as Parts Wash, Rough Wash, and Finish Wash, consisting of the following:

(A) conveyorized degreasing process, constructed in 1990 through 2008, collectively consisting of ~~forty-four (44)~~**thirty-six (36)** conveyorized degreasing units, identified as EU-PW-01 through **EU-PW-04, EU-PW-06 through EU-PW-08, EU-PW-15 through EU-PW-20, EU-PW-22 through EU-PW-27, EU-PW-30 through EU-PW-35,** EU-PW-37, EU-PW-39 through EU-PW-41, EU-PW-43, and EU-PW-44, utilizing Clark Air Units #8 mist eliminators as control, and exhausting within the building**;**

(B) three (3) conveyorized degreasing units, ~~approved for construction~~ **constructed** in 2011, identified as EU-PW-47 and EU-PW-48, utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18, and unit EU-PW-49, utilizing Clark Air Unit #9 mist eliminators for control, and exhausting within the building.

(C) Six (6) conveyorized degreasing units, approved for construction in 2013, identified as EU-PW-50 through EU-PW-55, utilizing Clark Air Units #4 (EU-PW-52) mist eliminators, Clark Air Units #6 (EU-PW-51), Clark Air Units #8 (EU-PW-50), Clark Air Units #9 (EU-PW-53 and EU-PW-54) as control, and exhausting within the building, and EU-PW-55 utilizing Exhaust Fan EF-19 for control and exhausting through Vent EP-18.

(3) One (1) ball wash conveyorized degreasing process, identified as Ball Wash, constructed in 2001, 1993, 1996, and 2008, consisting of ~~four (4)~~ **two (2)** conveyorized degreasing units, identified as EU-BW-01 **and EU-BW-03** ~~through EU-BW-04~~, utilizing no control device, and exhausting within the building.

(e) One (1) cold cleaner degreasing process, identified as Cleaning Process, consisting of the following:

(1) Cold cleaner degreasing process, constructed in 1993, 2003, and 2006, consisting of three (3) dip tanks, identified as EU-NPACL-01 through EU-NPACL-03; exhausting within the building**;**

(2) Cold cleaner degreasing process, consisting of six (6) dip tanks, ~~approved for construction~~ **constructed** in 2011, identified as EU-NPACL-04 through EU-NPACL-09, utilizing no control devices, and exhausting within the building.

(3) Cold cleaner degreasing process, consisting of six (6) dip tanks, approved for construction in 2013, identified as EU-NPACL-10 through EU-NPACL-15, utilizing no control devices, and exhausting within the building.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-4]

~~Pursuant to 326 IAC 8-3-4 (Conveyorized Degreaser Operation), the owner or operator of a conveyorized degreaser shall:~~

~~(1) minimize carryout emissions by:~~

~~(A) racking parts for best drainage;~~

~~(B) maintaining the vertical conveyor speed at less than 3.3 meters per minute (eleven (11) feet per minute);~~

~~(2) 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;~~

~~(3) repair solvent leaks immediately, or shut down the degreaser;~~

~~(4) not use workplace fans near the degreaser opening;~~

~~(5) not allow water in solvent exiting the water separator; and~~

~~(6) provide a permanent, conspicuous label summarizing the operating requirements.~~

Pursuant to 326 IAC 8-3-4 (Conveyorized Degreaser Control Equipment and Operating Requirements), the Permittee shall:

(a) Ensure the following control equipment and operating requirements have been met:

(1) Minimize carryout emissions by:

(A) Racking parts for best drainage;

(B) Maintaining the vertical conveyor speed at less than 3.3 meters per minute (eleven (11) feet per minute);

(2) Store waste solvent only in closed containers.

(3) Prohibit the disposal or transfer of waste solvent in a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(4) Repair solvent leaks immediately, or shut down the degreaser if leaks cannot be repaired immediately.

(5) Prohibit the use of workplace fans near the degreaser opening.

(6) Prohibit visually detectable water in the solvent from exiting the water separator.

(7) Equip the degreaser with a permanent, conspicuous label that lists the operating requirements in subdivisions (1) through (6).

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

The cold cleaner degreasers EU-NPACL-01 through EU-NPACL-~~09~~**15** are subject to the provisions of 326 IAC 8-3-2 (Organic solvent degreasing operations: cold cleaner operations). ~~Pursuant to this rule, the owner or operator of the one (1) cold cleaner degreasing process (Cleaning Process) shall:~~

~~(a) equip the cleaner with a cover;~~

~~(b) equip the cleaner with a facility for draining cleaned parts;~~

~~(c) close the degreaser cover whenever parts are not being handled in the cleaner;~~

~~(d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;~~

~~(e) provide a permanent, conspicuous label summarizing the operating requirements;~~

~~(f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.~~

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaning degreasers without remote solvent reservoirs constructed after July 1, 1990:

(a) The Permittee shall ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.

(5) Provide a permanent, conspicuous label that lists the operating requirements in (a)(3), (a)(4), (a)(6), and (a)(7) of this condition.

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) The Permittee shall ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those outlined in (b)(1)(A) through (D) of this condition that is

approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

(A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

~~D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]~~

~~(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of the cold cleaner degreasers (EU-NPACL-01 through EU-NPACL-09) 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 (38EC) (one hundred degrees Fahrenheit (100EF));~~

~~(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 (38EC) (one hundred degrees Fahrenheit (100EF)), 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 (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):~~

~~(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), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, 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.~~

D.2.3 Volatile Organic Compounds [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8(b)(2)(Material requirements for Cold Cleaner) the Permittee shall not operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Farenheit).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.3 and pursuant to 326 IAC 8-3-8(c)(2) and (e), the Permittee shall maintain the following records for each purchase of solvent. These records shall be retained on-site for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

(1) The name and address of the solvent supplier.

(2) The date of purchase (or invoice/bill date of contract servicer indicating service date.

(3) The type of solvent purchased.

(4) The total volume of the solvent purchased.

(5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Quarterly Report

Source Name: NSK Corporation - Franklin Campus
Source Addresses: 3400 Bearing Drive, Franklin, IN 46131; and
3450 Bearing Drive, Franklin, IN 46131
FESOP Permit No.: F081-28776-00023
Facilities: See Table Below
Parameter: VOC
Limit: The input of volatile organic compounds (VOC) to the below listed emission units, minus the VOC containing waste materials shipped out, shall be limited to 98.18 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

This form consists of 3 pages **Page 1 of 3**

Processes	Controls	Exhaust IDs	Emission Unit IDs
NSK Corporation Hub Plant			
G1 Grinding	Clark Air Units	Internal	EU-G1-01 through EU-G1-03
	N/A	Internal	EU-G1-04 through EU-G1-06
	Clark Air Units	**Internal**	**EU-G1-08 through EU-G1-10**
G2 Grinding	Aerostokes	EP17 / EP18	EU-G2-01 through EU-G2-08
			EU-G2-10 through **EU-G2-18, EU-G2-21, EU-G2-22, EU-G2-24, EU-G2-25, EU-G2-30 through EU-G2-41,** EU-G2-43
New Concept Grinding	Clark Air Units	Internal	EU-NCG-01 through EU-NCG-08
			EU-NCG-10 through EU-NCG-25
Taper Roller Grinding	Clark Air Units	Internal	EU-TRG-01 through EU-TRG-08, EU-TRG-10, EU-TRG-11,EU-TRG-12, EU-TRG-14 through EU-TRG-16**, EU-TRG-18 through EU-TRG-24**
Taper Roller Grinding	Exhaust Fan EF-19	EP18	EU-TRG-9, EU-TRG-13, **EU-TRG-17**
Superfinish G2	Aerostokes	EP17 / EP18	EU-SFG2-01 through EU-SFG2-04 EU-SFG2-07 EU-SFG2-09 through EU-SFG2-12 EU-SFG2-14 through **EU-SFG2-16,** EU-SFG2-18 ~~EU-SFG2-20~~ **EUSFG2-21,** ~~through~~**, EU-SFG2-24,** EU-SFG2-25\EU-SFG2-27, EU-SFG2-28, EU-SFG2-30
	Clark Air Units	**Internal**	**EU-SFG2-29 and EU-SFG2-31**
Superfinish New Concept	Clark Air Units	Internal	EU-SFNC-01 through EU-SFNC-03
			EU-SFNC-06 through EU-SFNC-08 EU-SFNC-10 through EU-SFNC-15
			EU-SFNC-16, EU-SFNC-17
	Exhaust Fan EF-19	EP18	EU-SFNC-05 and EU-SFNC-09
Superfinish Taper Roller	Clark Air Units	Internal	EU-SFTR-01 through EU-SFTR-**0**4 EU-SFTR-06 ~~and~~ EU-SFTR-08**, EU-SFTR-10, EU-SFTR-12**
Superfinish Taper Roller	Exhaust Fan EF-19	EP18	EU-SFTR-05 and EU-SFTR-07, **EU-SFTR-09, EU-SFTR-11**
FS-4 Turning	N/A	Internal	EU-HTFS-01 through EU-HTFS-05
LU300 Turning	N/A	Internal	EU-HTLU-01 through EU-HTLU-06
Broaching	N/A	Internal	EU-BR-01 ~~and EU-BR-02~~

Processes	Controls	Exhaust IDs	Emission Unit IDs
Painting	Clark Air Units	Internal	EU-PNT-01 through **EU-PNT-05, EU-PNT-11** ~~EU-PNT-07~~
	N/A	Internal	EU-PNT-08 through EU-PNT-10
HUB I - Assembly Rust Preventative	N/A	Internal	EU-H1RP-01 through EU-H1RP-03
~~HUB II - Assembly Rust Preventative~~	~~Clark Air Units~~	~~Internal~~	~~EU-H2RP-01 and EU-H2RP-02~~
HUB III - Assembly / New Concept Rust Preventative	Clark Air Units	Internal	EU-H3/NCRP-01 through EU-H3/NCRP-09
Taper Roller Rust Preventative	Clark Air Unit	Internal	EU-TRRP-01, **EU-TRRP-02** ~~EU-TRRP-03~~
Taper Roller Rust Preventive	Exhaust Fan EF-19	EP18	~~EU-TRRP-02~~, **EU-TRRP-03**
			EU-TRRP-04, EU-TRRP-05
Superfinish Wash	N/A	Internal	EU-SFW-01 through EU-SFW-04
			EU-SFW-08 through EU-SFW-11
			EU-SFW-13 through EU-SFW-18
			EU-SFW-20 through EU-SFW-25
			EU-SFW-27 through EU-SFW-31
Parts Wash, Rough Wash, Finish Wash	Clark Air Units	Internal	EU-PW-01 through **EU-PW-04, EU-PW-06 through EU-PW-08, EU-PW-15 through EU-PW-20, EU-PW-22 through** EU-PW-37
			EU-PW-39 through EU-PW-41
			EU-PW-43 and EU-PW-47**,** ~~through~~ EU-PW-49
			EU-PW-50 through EU-PW-54
	Exhaust Fan EF-19	**EP18**	**EU-PW-48, EU-PW-55**
Ball Wash			EU-BW-01**, EU-BW-03** ~~through EU-BW-04~~
Finish Wash, Ball Wash, Rough Wash - Tanks	N/A	Internal	EU-Tank-02 through EU-Tank-04
Parts Wash and Coolant Tanks	N/A	Internal	EU-Tank-06 through EU-Tank-08
Superfinish Wash Tank	N/A	Internal	EU-Tank-10
Coolant Tanks	N/A	Internal	EU-Tank-12 through EU-Tank-15
NSK Precision America, Inc. Plant			
Cutting	N/A	Internal	EU-NPACT-01 through EU-NPACT-08
	On-Board	Internal	EU-NPACT-09 and EU-NPACT-10
	N/A	Internal	EU-NPACT-11
	Dust Collector	Internal	EU-NPACT-12
	Shop-Vac	Internal	EU-NPACT-13
Turning	N/A	Internal	EU-NPAT-01**, EU-NPAT-02, EU-NPAT-04** through EU-NPAT-11
	On-Board	Internal	EU-NPAT-12 and EU-NPAT-13
	N/A	Internal	EU-NPAT-14 through EU-NPAT-18
	N/A	Internal	EU-NPAT-19 through EU-NPAT-24
	N/A	Internal	EU-NPAT-26 and EU-NPAT-27
	FX-900	**Internal**	**EU-NPAT-29**
	N/A	**Internal**	**EU-NPAT-30 through EU-NPAT-32**
Grinding	On-Board	Internal	EU-NPAG-01 through EU-NPAG-09
	N/A	Internal	EU-NPAG-10 through EU-NPAG-12
	On-Board	Internal	EU-NPAG-27, 28, 31, and 33
	On-Board	Internal	EU-NPAG-13 through EU-NPAG-21
	OMC	EP19	EU-NPAG-22 through EU-NPAG-26
	OMC	EP19	EU-NPAG-29, 30, and 32
	M-90	**Internal**	**EU-NPAG-34**
Dip Process	N/A	Internal	EU-NPAD-01 through EU-NPAD-04
Cleaning Process	N/A	Internal	EU-NPACL-01 through EU-NPACL-09
			EU-NPACL-10 through EU-NPACL-15
Packing Process	N/A	Internal	EU-NPAPK-01

YEAR:_____

Month	Column 1			Column 2			Column 1 + Column 2		
	This Month			Previous 11 Months			12 Month Total		
	VOC Input (tons)	VOC Recycled (tons)	VOC Emitted (tons)	VOC Input (tons)	VOC Recycled (tons)	VOC Emitted (VOC)	VOC Input (tons)	VOC Recycled (tons)	VOC Emitted (tons)
Month 1									
Month 2									
Month 3									

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

~~Attach a signed certification to complete this report.~~

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Usage Report
(Submit Report Quarterly)

Source Name: NSK Franklin - Franklin Campus
Source Address(es): 3400 Bearing Drive, Franklin, IN 46131; and
3450 Bearing Drive, Franklin, IN 46131
FESOP Permit No.: F081-28776-00023
Facility: Hub II - Assembly Rust Preventative
Parameter: VOC Usage
Limit: The VOC usage for the Hub II - Assembly Rust Preventative process (EU-H2RP-01 and EU-H2RP-02) shall be less than 15.0 pounds per day.

Month: _____ **Year:** _____

Day		Day	
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16			

□ No deviation occurred in this month.

□ Deviation/s occurred in this month.
Deviation has been reported on _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Mail to: Permit Administration and Support Section

Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

NSK Corporation - Franklin Campus
3400 Bearing Drive
Franklin, Indiana 46131

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)

4. I hereby certify that NSK Corporation - Franklin Campus 3400 Bearing Drive, Franklin, Indiana 46131, has constructed and will operate a hub bearing and ball screw manufacturing plant on _____ in conformity with the requirements and intent of the permit application received by the Office of Air Quality on December 22, 2009 and as permitted pursuant to New Source Construction Permit and Federally Enforceable State Operating Permit No. F081-28776-00023, Plant ID No. 081-00023 issued on _____.

5. **Permittee, please cross out the following statement if it does not apply:** Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature_____
Date_____

STATE OF INDIANA)
_____)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 20 _____. My Commission expires: _____.

Signature_____
Name_____ (typed or printed)

Upon further review, IDEM, OAQ has decided to make the following changes to the permit. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

Section A.1 has been revised to indicate that Johnson County is now in unclassifiable or attainment for the PM2.5 standard. In addition, Section A.1 has of the permit has been revised to remove all references to the source mailing address. IDEM, OAQ will continue to maintain records of the mailing address.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary hub bearing and ball screw manufacturing plant.

Source Addresses:	3400 Bearing Drive, Franklin, IN 46131; and 3450 Bearing Drive, Franklin, IN 46131
~~Mailing Address:~~	~~3400 Bearing Drive, Franklin, IN 46131~~
General Source Phone Number:	(317) 738-5000
SIC Code:	3562 (Ball and Roller Bearings)
County Location:	Johnson
Source Location Status:	~~Nonattainment for PM2.5 standard~~ Attainment for all ~~other~~ criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD, ~~Emission Offset Rules and Nonattainment New Source Review~~ Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on *(date).*

The construction and operation of this administrative amendment shall be subject to the conditions of the attached proposed FESOP Administrative Amendment No. 081-33541-00023. The staff recommends to the Commissioner that this FESOP Administrative Amendment be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Bruce Farrar at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5401 or toll free at 1-800-451-6027 extension 4-5401.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem

Appendix A: Emissions Calculations
Summary

Company Name: NSK Corporation - Franklin Campus
Address City IN Zip: 3400 Bearing Drive, Franklin, IN 46131
Administrative Amendment: F081-33541-00023
Reviewer: Bruce Farrar
Date: August 16, 2013

Uncontrolled Emissions (Tons/Yr)

Pollutant	New Units	NSK Corp. Nat. Gas Combustion	NSK Precision America Nat. Gas Combustion	Source-Wide VOC / HAP Usage	NSK Corp. Wet Machining	NSK Precision America Wet Machining	Spray Coating	Rust Preventative[b]	Conveyorized Degreasers	Dip Coating	Cold Cleaner Degreasers	Packing Process	Roadways (Fugitive)	Total
PM	-	0.18	0.11	-	125.97	21.93	0.43	-	-	-	-	-	1.43	148.61
PM10	-	0.72	0.42	-	125.97	21.93	0.43	-	-	-	-	-	0.28	149.47
PM2.5	-	0.72	0.42	-	125.97	21.93	0.43	-	-	-	-	-	0.04	149.47
VOC	17.59	0.52	0.31	261.35	-	-	[a]	[a]	[a]	[a]	[a]	[a]	-	262.17
NOx	-	9.42	5.58	-	-	-	-	-	-	-	-	-	-	14.99
SO2	-	0.06	0.03	-	-	-	-	-	-	-	-	-	-	0.09
CO	-	7.91	4.69	-	-	-	-	-	-	-	-	-	-	12.60
GHG as CO2e	-	11,367.06	6,735.31											18,102.37
Single HAP (Ethylene Glycol)	-	-	-	4.09	-	-	[a]	[a]	[a]	[a]	[a]	[a]	-	4.09
Combined HAPs	-	0.18	0.11	5.98	-	-	[a]	[a]	[a]	[a]	[a]	[a]	-	6.26

Limited Emissions (Tons/Yr)

Pollutant	NSK Corp. Nat. Gas Combustion	NSK Precision America Nat. Gas Combustion	Source-Wide VOC / HAP Usage	NSK Corp. Wet Machining	NSK Precision America Wet Machining	Spray Coating	Rust Preventative[b]	Conveyorized Degreasers	Dip Coating	Cold Cleaner Degreasers	Packing Process	Total
PM	0.18	0.11	-	125.97	21.93	0.43	-	-	-	-	-	148.61
PM10	0.72	0.42	-	67.67	21.93	0.43	-	-	-	-	-	91.17
PM2.5	0.72	0.42	-	67.67	21.93	0.43	-	-	-	-	-	91.17
VOC	0.52	0.31	98.18	-	-	[a]	[a]	[a]	[a]	[a]	[a]	99.00
NOx*	9.42	5.58	-	-	-	-	-	-	-	-	-	14.99
SO2**	0.06	0.03	-	-	-	-	-	-	-	-	-	0.09
CO	7.91	4.69	-	-	-	-	-	-	-	-	-	12.60
GHG as CO2e	11,367.06	6,735.31										18,102.37
Single HAP (Ethylene Glycol)	-	-	4.09	-	-	[a]	[a]	[a]	[a]	[a]	[a]	4.09
Combined HAPs	0.18	0.11	5.98	-	-	[a]	[a]	[a]	[a]	[a]	[a]	6.26

Controlled Emissions (Tons/Yr)

Pollutant	NSK Corp. Nat. Gas Combustion	NSK Precision America Nat. Gas Combustion	Source-Wide VOC / HAP Usage	NSK Corp. Wet Machining	NSK Precision America Wet Machining	Spray Coating	Rust Preventative[b]	Conveyorized Degreasers	Dip Coating	Cold Cleaner Degreasers	Packing Process	Total
PM	0.18	0.11	-	2.52	1.10	0.43	-	-	-	-	-	4.33
PM10	0.72	0.42	-	2.52	1.10	0.43	-	-	-	-	-	5.19
PM2.5	0.72	0.42	-	2.52	1.10	0.43	-	-	-	-	-	5.19
VOC	0.52	0.31	98.18	-	-	[a]	[a]	[a]	[a]	[a]	[a]	99.00
NOx	9.42	5.58		-	-	-	-	-	-	-	-	14.99
SO2	0.06	0.03	-	-	-	-	-	-	-	-	-	0.09
CO	7.91	4.69	-	-	-	-	-	-	-	-	-	12.60
GHG as CO2e	11,367.06	6,735.31										18,102.37
Single HAP (Ethylene Glycol)	-	-	4.09	-	-	[a]	[a]	[a]	[a]	[a]	[a]	4.09
Combined HAPs	0.18	0.11	5.98	-	-	[a]	[a]	[a]	[a]	[a]	[a]	6.26

Note:
(a) VOC and HAP emissions from all emissions units other than combustion are included in the Source-Wide VOC / HAPs.
(b) Rust Preventative emissions are from the Hub I, Hub II, Hub III / New Concept, and Taper Roller Rust Preventative processes combined.
Fugitive Emissions are not included in the Limited and Controlled PTE since this source is not 1 of the 28 Source Categories and no NSPS was in effect August 1980.

Appendix A: Emissions Calculations
VOC Emissions of Emission Units:

EU-G1-08 through EU-G1-10, EU-TRG-17 through EU-TRG-26 EU-SFTR-09 through EU-SFTR-12, EU-SFNC-16, EU-SFNC-17, EU-PNT-11, EU-PW-50 through EU-PW-55, EU-TRRP-04, EU-TRRP-05, EU-NPACL-10 through EU-NPACL-15, EU-NPAG-29 through EU-NPAT-32, EU-NPAG-34

Company Name: NSK Corporation - Franklin Campus
Address City IN Zip: 3400 Bearing Drive, Franklin, IN 46131
Administrative Amendment: F081-33541-00023
Reviewer: Bruce Farrar
Date: August 16, 2013

Area	Emission Units	Material Used	VOC Content (lb VOC / Gal)	Maximum Usage per machine (gal/yr)*	No. New Machines	Combine Usage (gal/yr)	Maximum VOC Content (lb/yr)	VOC Emissions (tons/yr)
Wet Grinding (G1)	EU-G1-08 through EU-G1-10	Cimstar 3800B (5% mixed w/95% water)	0.026	168.437	3	505.31	13.14	6.57E-03
Taper Roller Grinding	EU-TRG-17 through EU-TRG-26	Cimstar 3800B (5% mixed w/95% water)	0.026	168.437	8	1347.50	35.03	0.02
Taper Roller Superfinish Grinders	EU-SFTR-09 through EU-SFTR-12	SF-30A	1.00	751.88	4	3007.52	3007.52	1.50
New Concept	EU-SFNC-16 and EU-SFNC-17	SF-30A	1.00	751.88	2	1503.76	1503.76	0.75
HUB III -Assembly	EU-PNT-11	Cerfa-Kleen 5378	0.9	600	1	600	540	0.27
Parts Washers	EU-PW-50 through EU-PW-55	Kerosene 95%/P 307BF 5%	6.753	337.33	6	2023.98	13667.94	6.83
Rust Prevention	EU-TRRP-04	Ferrocoat 5856 BF-T1	3.48	1430	1	1430	4976.40	2.49
Rust Prevention	EU-TRRP-05	Yuman P307H	5.08	1430	1	1430	7264.40	3.63
Solvent Cleaners	EU-NPACL-10 through EU-NPACL-15	SK Solvent 105	6.7	100	6	600	4020	2.01
Nut Thread Grinder	EU-NPAG-34	Trim C270CG (5%/ Water 95%	0.64	50.38	1	50.38	32.24	0.02
Turning (Nut & Shaft)	EU-NPAT-29 through EU-NPAT-32	Trim C270CG (5%/ Water 95%	0.64	48.84	4	195.36	125.03	0.06
							Total VOC (tons/year):	**17.59**

Methodology:

*Maximum Usage Gallons per year is calculated at full capacity. Actual usage is at actual operating rates, and is 76% for the Hub Plant and 80% at the NPA Plant. Maximum has been increased to 100% maximum capacity to determine PTE.
Maximum VOC Content per machine (lb/yr) = Maximum Usage per machine (gallons/yr) x VOC content (lb/gallon)
VOC Emissions (lb/yr) = Maximum VOC Content per machine x number of new machines with this administrative amendment
VOC Emissions (tons/yr) = VOC Emissions (lb/yr) / 2000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
NSK Corporation Natural Gas Usage

Company Name: **NSK Corporation - Franklin Campus**
Address City IN Zip: **3400 Bearing Drive, Franklin, IN 46131**
Administrative Amendment: **F081-33541-00023**
Reviewer: **Bruce Farrar**
Date: **August 16, 2013**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Emission Units
1.50	13.14	Twenty (20) Interior Heaters @ 0.075 MMBtu/hr each
12.75	111.69	Fifteen (15) Rooftop HVAC Units @ 0.85 MMBtu/hr each
2.00	17.52	One (1) Rooftop HVAC Unit @ 2.0 MMBtu/hr
0.40	3.50	One (1) Rooftop HVAC Unit @ 0.4 MMBtu/hr
0.60	5.26	Two (2) Rooftop HVAC Units @ 0.3 MMBtu/hr each
0.15	1.31	One (1) Rooftop HVAC Unit @ 0.15 MMBtu/hr
0.25	2.19	Five (5) Rooftop HVAC Units @ 0.05 MMBtu/hr each
0.36	3.12	One (1) Rooftop HVAC Unit @ 0.356 MMBtu/hr
3.36	29.43	Two (2) Boilers @ 1.68 MMBtu/hr each
0.13	1.14	One (1) Generator @ 0.13 MMBtu/hr
21.50	188.3	

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.18	0.72	0.06	9.42	0.52	7.91

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

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, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 4 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
NSK Corporation Natural Gas Usage
HAPs Emissions

Company Name: NSK Corporation - Franklin Campus
Address City IN Zip: 3400 Bearing Drive, Franklin, IN 46131
Administrative Amendment: F081-33541-00023
Reviewer: Bruce Farrar
Date: August 16, 2013

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.977E-04	1.130E-04	7.061E-03	1.695E-01	3.201E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	4.708E-05	1.036E-04	1.318E-04	3.578E-05	1.977E-04

Methodology is the same as page 2.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120000	2.3	2.2
Potential Emission in tons/yr	11298.30	0.217	0.207
Summed Potential Emissions in tons/yr	11298.72		
CO2e Total in tons/yr	11,367.06		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
Natural Gas Combustion Only
NSK Precision America, Inc. Plant Natural Gas Usage

Company Name: NSK Corporation - Franklin Campus
Address City IN Zip: 3450 Bearing Drive, Franklin, IN 46131
Administrative Amendment: F081-33541-00023
Reviewer: Bruce Farrar
Date: August 16, 2013

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Emission Units
0.53	4.6	Seven (7) Interior Heaters @ 0.075 MMBtu/hr each
0.30	2.6	Two (2) Interior Heaters @ 0.15 MMBtu/hr each
0.60	5.3	Two (2) Interior Heaters @ 0.30 MMBtu/hr each
1.70	14.9	Two (2) HVAC Units @ 0.85 MMBtu/hr each
0.45	3.9	Three (3) HVAC Units @ 0.15 MMBtu/hr each
9.00	78.8	Two (2) Boilers @ 4.5 MMBtu/hr each
0.13	1.1	One (1) Generator @ 0.13 MMBtu/hr
0.03	0.3	One (1) Water Heater @ 0.032 MMBtu/hr
12.74	111.6	

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.11	0.42	0.03	5.58	0.31	4.69

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

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, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 5 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
NSK Precision America, Inc. Plant Natural Gas Usage
HAPs Emissions

Company Name: NSK Corporation - Franklin Campus
Address City IN Zip: 3400 Bearing Drive, Franklin, IN 46131
Administrative Amendment: F081-33541-00023
Reviewer: Bruce Farrar
Date: August 16, 2013

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.172E-04	6.695E-05	4.184E-03	1.004E-01	1.897E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.789E-05	6.137E-05	7.810E-05	2.120E-05	1.172E-04

Methodology is the same as page 4.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120000	2.3	2.2
Potential Emission in tons/yr	6694.57	0.128	0.123
Summed Potential Emissions in tons/yr	6694.82		
CO2e Total in tons/yr	6,735.31		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
Source Wide VOC Usage

Company Name: NSK Corporation - Franklin Campus
Address City IN Zip: 3400 Bearing Drive, Franklin, IN 46131
Administrative Amendment: F081-33541-00023
Reviewer: Bruce Farrar
Date: August 16, 2013

Material	Associated Process(s)	Maximum Usage (gal/yr)	Pounds VOC per gallon	VOC (lb/hr)	VOC (ton/yr)
NSK Corporation Hub Plant					
Cimcool Additive 63	G1 Grinding	806.5	7.86	0.72	3.17
	G2 Grinding				
	New Concept Grinding				
	Taper Roller Grinding				
Cimstar 3800	G1 Grinding	16862.2	0.69	1.33	5.82
	G2 Grinding				
	New Concept Grinding				
	Taper Roller Grinding				
Kerosene	Superfinish G2	63049.9	6.76	48.65	213.11
	Superfinish New Concept				
	Superfinsh Taper Roller				
	Superfinish Wash				
	Parts Wash				
	Rough Wash				
	Finish Wash				
	Ball Wash				
	Rust Preventative				
Methanol		193.5	6.59	0.15	0.64
Yuman SF-30A	Superfinish Wash	10000.0	1.04	1.19	5.20
	Parts Wash				
	Rough Wash				
	Finish Wash				
	Ball Wash				
	Superfinish G2				
	Superfinish New Concept				
	Superfinish Taper Roller				
P307 H	Rust Preventative	2217.0	5.08	1.29	5.63
Houghton Rust Preventive	Paint Process	733.1	1.40	0.12	0.51
Valspar Ecoat		161.3	0.30	0.01	0.02
Valspar Resin		322.6	0.30	0.01	0.05
Cimtech 410C	FS-4 Turning	806.5	1.15	0.11	0.46
	LU300 Turning				
Quantalube 270 XL	Broaching	1048.4	0.43	0.05	0.23
				Total PTE:	**234.84**
NSK Precision America, Inc. Plant					
Actrel 3338	Cleaning Process	877.66	6.26	0.63	2.75
Chemstation 1855		2547.87	0.17	0.05	0.22
Cimtech 500	Turning	819.15	1.77	0.17	0.72
Dukem Thinner		246.81	6.61	0.19	0.82
SuperSpin2		58.51	6.77	0.05	0.20
Trim C270	Cutting	10348.94	0.64	0.76	3.31
	Turning				
	Shaft End/OD Grinding				
	Thread Grinding				
Trim OM287	Shaft End/OD Grinding	1956.38	0.47	0.11	0.46
	Thread Grinding				
Trim RP 08F	Dip Process	58.51	5.14	0.03	0.15
Yumax P375	Packing Process	114.89	4.61	0.06	0.26
Ecocool Syn 902	Cutting	175.53	0.17	0.00	0.01
Rustlick B	Cutting	5.32	2.50	0.00	0.01
				Total PTE:	**8.91**
				Source Total:	**243.75**

Note:
NSK Corporation Maximum Usage = Actual Usage (2008) at 68.2 % Capacity * (100 / Actual Capacity (%))
NSK Precision America, Inc. Maximum Usage = Actual Usage (2008) at 94 % Capacity * (100 / Actual Capacity (%))
Actual usage rates and pounds VOC per gallon provided by Source.

Methodology:
VOC (ton/yr) = Maximum Usage (gal/yr) * Pounds VOC per gallon / 2,000 lbs
VOC (lb/hr) = VOC (ton/yr) * 2,000 hrs / 8,760 hrs

Appendix A: Emissions Calculations
Source Wide HAP Usage

Company Name: NSK Corporation - Franklin Campus
Address City IN Zip: 3400 Bearing Drive, Franklin, IN 46131
Administrative Amendment: F081-33541-00023
Reviewer: Bruce Farrar
Date: August 16, 2013

Material	Density (lb/Gal)	Maximum Usage (gal/yr)	Weight % Methanol	Weight % Napthalene	Weight % Ethylene Glycol	Methanol Emissions (tons/yr)	Napthalene Emissions (tons/yr)	Ethylene Glycol Emissions (tons/yr)
NSK Corporation Hub Plant								
Kerosene	6.76	63049.85	0.0%	0.50%	0.00%	0.00	1.07	0.00
Methanol	6.59	193.55	100.0%	0.00%	0.00%	0.64	0.00	0.00
Houghton Rust Preventive	8.53	733.14	0.0%	0.00%	0.30%	0.00	0.00	0.00
						0.64	**1.07**	**0.00**

Material	Density (lb/gal)	Maximum Usage (gal/yr)	Weight % Ethylene Glycol	Ethylene Glycol Emissions (tons/yr)
NSK Precision America. Inc. Plant				
Ethylene Glycol	9.35	874.47	100.00%	4.09
				4.09

Combine HAP PTE (tons/yr): **5.79**
Worst Single HAP (tons/yr): **4.09** **Ethylene Glycol**

Methodology:
PTE of HAPs (tons/yr) = Density (lb/gal) * Maximum Usage (gal/yr) * Weight % HAP / 2000 lbs

Appendix A: Emissions Calculations
NSK Corporation Hub Plant Wet Machining Emissions

Company Name: NSK Corporation - Franklin Campus
Address City IN Zip: 3400 Bearing Drive, Franklin, IN 46131
Administrative Amendment: F081-33541-00023
Reviewer: Bruce Farrar
Date: August 16, 2013

Control Device	Vent ID	Outlet Grain Loading (gr/acfm)	Flow Rate (cfm)	Control Efficiency (%)	Number of Units	Uncontrolled PM/PM10/PM2.5 PTE		Controlled PM/PM10/PM2.5 PTE		Limited PM10/PM2.5 PTE	
						(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
Exhaust Fan EF-19	EP-18	0.00206	7500	98.00%	1	6.62	29.00	0.13	0.58	5.15	22.56
AEROSTOKES	EP-17 & EP-18	0.025288	162.5	98.00%	9	15.85	69.42	0.32	1.39	5.15	22.56
Clark Air Units	N/A	0.000741	2200	98.00%	9	6.29	27.54	0.13	0.55	5.15	22.56
						Total PTE:	**125.97**		**2.52**		**67.67**

Notes:
Flow rates and control efficiencies provided by source.
Exhaust Fan EF-19 emission factor based on grain loading provided by manufacturer.
AEROSTOKES outlet grain loading based on information provided in source's previous Registration 081-3804-00023.
Clark Air Units outlet grain loadings based on calculations used in Automotive Components Holdings, LLC FESOP 097-18528-00021 for similar operations. These units exhaust within the building.

Methodology:
Potential Emissions (lbs/hr) = Controlled Emissions (lbs/hr) / (1-Control Efficiency)
Potential Emissions (tons/yr) = Controlled Emissions (tons/yr) / (1- Control Efficiency)
Controlled Emissions (lbs/hr) = Grain Outlet Loading (gr/acfm) * Flow Rate (acfm) * 60 minutes / 1 hr * 1lb / 7000 gr * Number of Units
Controlled Emissions (tons/yr) = Controlled Emissions (lbs/hr) * 8760 hrs / 2000 lbs

Appendix A: Emissions Calculations
NSK Precision America (NPA Plant) Wet Machining Emissions

Company Name: NSK Corporation - Franklin Campus
Address City IN Zip: 3400 Bearing Drive, Franklin, IN 46131
Administrative Amendment: F081-33541-00023
Reviewer: Bruce Farrar
Date: August 16, 2013

NSK Precision America, Inc. Plant

Control Device	Vent ID	Outlet Grain Loading	Flow Rate	Control Efficiency	Number of Units	Uncontrolled PM/PM10/PM2.5 PTE		Controlled PM/PM10/PM2.5 PTE		Limited PM10/PM2.5 PTE	
		(gr/acfm)	(cfm)	(%)		(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
Central Oil Mist Collectors (OMC)	EP-19	0.001195215	7800	95.00%	2	3.20	14.00	0.16	0.70	3.20	14.00
On-Board Oil Mist Eliminators											
EU-NPACT-08	N/A	0.000741	450	95.00%	1	0.06	0.25	0.00	0.01	0.06	0.25
EU-NPACT-09	N/A	0.000741	900	95.00%	1	0.11	0.50	0.01	0.03	0.11	0.50
EU-NPAT-12	N/A	0.000741	900	95.00%	1	0.11	0.50	0.01	0.03	0.11	0.50
EU-NPAT-13	N/A	0.000741	900	95.00%	1	0.11	0.50	0.01	0.03	0.11	0.50
EU-NPAG-01	N/A	0.000741	276	95.00%	1	0.04	0.15	0.00	0.01	0.04	0.15
EU-NPAG-02	N/A	0.000741	276	95.00%	1	0.04	0.15	0.00	0.01	0.04	0.15
EU-NPAG-03	N/A	0.000741	250	95.00%	1	0.03	0.14	0.00	0.01	0.03	0.14
EU-NPAG-04	N/A	0.000741	276	95.00%	1	0.04	0.15	0.00	0.01	0.04	0.15
EU-NPAG-05	N/A	0.000741	476	95.00%	1	0.06	0.26	0.00	0.01	0.06	0.26
EU-NPAG-06	N/A	0.000741	1060	95.00%	1	0.13	0.59	0.01	0.03	0.13	0.59
EU-NPAG-07	N/A	0.000741	1060	95.00%	1	0.13	0.59	0.01	0.03	0.13	0.59
EU-NPAG-08	N/A	0.000741	1060	95.00%	1	0.13	0.59	0.01	0.03	0.13	0.59
EU-NPAG-09	N/A	0.000741	276	95.00%	1	0.04	0.15	0.00	0.01	0.04	0.15
EU-NPAG-13	N/A	0.000741	1060	95.00%	1	0.13	0.59	0.01	0.03	0.13	0.59
EU-NPAG-14	N/A	0.000741	210	95.00%	1	0.03	0.12	0.00	0.01	0.03	0.12
EU-NPAG-15	N/A	0.000741	210	95.00%	1	0.03	0.12	0.00	0.01	0.03	0.12
EU-NPAG-16	N/A	0.000741	456	95.00%	1	0.06	0.25	0.00	0.01	0.06	0.25
EU-NPAG-17	N/A	0.000741	456	95.00%	1	0.06	0.25	0.00	0.01	0.06	0.25
EU-NPAG-18	N/A	0.000741	456	95.00%	1	0.06	0.25	0.00	0.01	0.06	0.25
EU-NPAG-19	N/A	0.000741	456	95.00%	1	0.06	0.25	0.00	0.01	0.06	0.25
EU-NPAG-20	N/A	0.000741	456	95.00%	1	0.06	0.25	0.00	0.01	0.06	0.25
EU-NPAG-21	N/A	0.000741	456	95.00%	1	0.06	0.25	0.00	0.01	0.06	0.25
EU-NPAG-27	N/A	0.000741	456	95.00%	1	0.06	0.25	0.00	0.01	0.06	0.25
EU-NPAG-28	N/A	0.000741	456	95.00%	1	0.06	0.25	0.00	0.01	0.06	0.25
EU-NPAG-31	N/A	0.000741	456	95.00%	1	0.06	0.25	0.00	0.01	0.06	0.25
EU-NPAG-33	N/A	0.000741	500	95.00%	1	0.06	0.28	0.00	0.01	0.06	0.28
						Total PTE:	**21.93**		**1.10**		**21.93**

Notes:
OMC grain loading was back calculated based on information provided in source's previous Registration 081-3804-00023 and a revised control efficiency.
On-board oil mist eliminator flow rate provided by source in NOD response received February 12, 2010. Outlet grain loadings based on calculations used in Automotive Components Holdings, LLC FESOP 097-18528-00021 for similar operations. These units exhaut within the building.
Wet machining process is considered to have minimal particulate emissions, as detemined in F081-28776-00023, issued July 29, 2010. Therefore, those units with no control device have no emissions calculations.

Methodology:
Potential Emissions (lbs/hr) = Controlled Emissions (lbs/hr) / (1-Control Efficiency)
Potential Emissions (tons/yr) = Controlled Emissions (tons/yr) / (1- Control Efficiency)
Controlled Emissions (lbs/hr) = Grain Outlet Loading (gr/acfm) * Flow Rate (acfm) * 60 minutes / 1 hr * 1lb / 7000 gr * Number of Units
Controlled Emissions (tons/yr) = Controlled Emissions (lbs/hr) * 8760 hrs / 2000 lbs

Appendix A: Emissions Calculations
Spray Coating Particulate Emissions

Company Name: **NSK Corporation - Franklin Campus**
Address City IN Zip: **3400 Bearing Drive, Franklin, IN 46131**
Administrative Amendment: **F081-33541-00023**
Reviewer: **Bruce Farrar**
Date: **August 16, 2013**

EU-PNT-01 thorugh EU-PNT-05

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Maximum (gallon/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Houghton Rust Preventative	8.53	78.41%	62.00%	16.41%	64.00%	25.00%	0.084	3.89	1.40	0.12	2.81	0.51	0.17	5.60	75%
VECTOGARD (900 Black Pigment Paste)	11.09	45.44%	44.79%	0.65%	60.00%	39.35%	0.018	0.18	0.07	0.00	0.03	0.01	0.12	0.18	75%
VECTOGARD (900 Dispersion Resin)	8.90	59.99%	58.21%	1.78%	60.00%	40.01%	0.037	0.40	0.16	0.01	0.14	0.03	0.14	0.40	75%
									Total PTE:	**0.12**	**2.98**	**0.54**	**0.43**		

Note:
These calculations are being peformed to determine potential Particulate emissions and for State Rule Applicability determinations. VOC Emissions are already counted from this process on Page 6 of 14.

Methodology:
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
Rust Preventative Application VOC and Particulate Emissions

Company Name: **NSK Corporation - Franklin Campus**
Address City IN Zip: **3400 Bearing Drive, Franklin, IN 46131**
Administrative Amendment: **F081-33541-00023**
Reviewer: **Bruce Farrar**
Date: **August 16, 2013**

Combined Hub I, Hub III / New Concept, and Taper Roller Rust Preventative processes

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Maximum (gallon/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Yuman 307 H	5.08	100.00%	0.00%	100.00%	0.00%	0.00%	0.253	5.08	5.08	1.29	30.86	5.63	0.00	N/A	75%

Taper Roller Rust Preventative processes EU-TRRP-02 and EU-TRRP-03

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Maximum (gallon/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
RP Oil	2.08	100.00%	0.00%	100.00%	0.00%	0.00%	0.092	2.08	2.08	0.19	4.60	0.84	0.00	N/A	75%
									Total PTE:	**1.29**	**30.86**	**6.47**	**0.00**		

Note:
These calculations are being peformed to determine potential Particulate emissions and for State Rule Applicability determinations. VOC Emissions are already counted from this process on Page 6 of 14.

Methodology:
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
Dip Coating VOC Emissions

Company Name: **NSK Corporation - Franklin Campus**
Address City IN Zip: **3400 Bearing Drive, Franklin, IN 46131**
Administrative Amendment: **F081-33541-00023**
Reviewer: **Bruce Farrar**
Date: **August 16, 2013**

EU-NPAD-01 through EU-NPAD-04

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Maximum (gallon/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Trip RP 08F	5.14	100.00%	0%	100.00%	0.00%	0.00%	0.007	5.14	5.14	0.03	0.82	0.15	0.00	N/A	100%

EU-NPAD-05

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Maximum (gallon/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
RPO 6 BF	4.085	100.00%	0%	100.00%	0.00%	0.00%	0.0035	4.09	4.085	0.01	0.34	0.063	0.000	N/A	100%
									Total PTE:			**0.21**	**0.00**		

Note:
These calculations are being peformed to determine potential Particulate emissions and for State Rule Applicability determinations. VOC Emissions are already counted from this process on Page 6 of 14.

Methodology:
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: NSK Corporation - Franklin Campus
Address City IN Zip: 3400 Bearing Drive, Franklin, IN 46131
Administrative Amendment: F081-33541-00023
Reviewer: Bruce Farrar
Date: August 16, 2013

Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (12/2003).

Vehicle Informtation (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip	40.0	1.0	40.0	10.0	400.0	1200	0.227	9.1	3318.2
Vehicle (leaving plant) (one-way trip)	40.0	1.0	40.0	22.5	900.0	1200	0.227	9.1	3318.2
		Total	**80.0**		**1300.0**			**18.2**	**6636.4**

Average Vehicle Weight Per Trip = 16.3 tons/trip
Average Miles Per Trip = 0.23 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL/2)^0.65 * (W/3)^1.5 - C] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.082	0.016	0.0024	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
W =	16.3	16.3	16.3	tons = average vehicle weight (provided by source)
C =	0.00047	0.00047	0.00036	lb/mi = emission factor for vehicle exhaust, brake wear, and tire wear (AP-42 Table 13.2.1-2
sL =	0.6	0.6	0.6	g/m^2 = Ubitiguous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summe

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)]
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.47	0.09	0.01	lb/mile
Mitigated Emission Factor, Eext =	0.43	0.08	0.01	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip	0.78	0.15	0.02	0.72	0.14	0.02
Vehicle (leaving plant) (one-way trip)	0.78	0.15	0.02	0.72	0.14	0.02
	1.57	**0.30**	**0.04**	**1.43**	**0.28**	**0.04**

Methodology

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] * [1 - Dust Control Efficiency]

Abbreviations

PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Kevin Dodds
NSK Corporation
3400 Bearing Drive
Franklin, IN 46131

DATE: November 19, 2013

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Administrative Amendment
081-33541-00023

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Lynn Jankowski – Quality Systems Group
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 6/13/2013

Mail Code 61-53

IDEM Staff	GHOTOPP 11/19/2013 NSK Corporation 081-33541-00023 Final		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Kevin Dodds NSK Corporation 3400 Bearing Dr Franklin IN 46131-9660 (Source CAATS) via confirmed delivery									
2		Johnson County Commissioners 5 East Jefferson Franklin IN 46131 *(Local Official)*									
3		Johnson County Health Department 86 W. Court St, Courthouse Annex Franklin IN 46131-2345 *(Health Department)*									
4		Frederick & Iva Moore 6019 W 650 N Ligonier IN 46767 *(Affected Party)*									
5		Larry and Becky Bischoff 10979 North Smokey Row Road Mooresville IN 46158 *(Affected Party)*									
6		Greenwood City Council and Mayors Office 2 N. Madison Ave. Greenwood IN 46142 *(Local Official)*									
7		Lynn Jankowski Quality Systems Group 147 N Milford Rd, Ste 201 Highland MI 48357 *(Consultant)*									
8											
9											
10											
11											
12											
13											
14											
15											

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
6			

FACSIMILIE OF PS Form 3877