

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

NTN Bearing Corp. of America
Attn: Lori Opager
1600 East Bishop Court
Mt. Prospect, Illinois 60056

Application No.: 96120001 I.D. No.: 031063AIA
Applicant's Designation: Date Received: December 2, 1996
Subject: Bearing Manufacturing Plant
Date Issued: February 24, 2000 Expiration Date: February 24, 2005
Location: 31 East Oakton Street, Des Plaines

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of five (5) conveyorized degreaser stations (DS-1 through DS-5), four (4) cold stage cleaning stations (SC-1 through SC-4), three (3) parts dryers, and one rustproofing process pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 25 tons/year for volatile organic material (VOM)). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits for this location.
- 2a. This permit is issued based upon the cold cleaning degreasers and the conveyorized degreasers not being subject to the requirements of 40 CFR Part 63, Subpart T: National Emission Standard for Halogenated Solvent Cleaning. This is consequence of the usage of non-halogenated solvents, as defined in 40 CFR 63.460.
- b. This permit is issued based upon the cold cleaning degreasers and the conveyorized degreasers being subject to the operational and equipment requirements of 35 Ill. Adm. Code Part 218, Subpart E: Solvent Cleaning. The Permittee shall follow operating procedures and equipment requirements of Section 218.182 for the cold cleaning degreasers and 218.184 for the conveyorized degreasers.

3a. Solvent usage and air emissions shall not exceed the following limits:

<u>Equipment</u>	<u>Solvent Usage</u>		<u>VOM</u>	<u>Volatile Organic Material</u>	
	<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>	<u>Content</u>	<u>Emissions</u>	
			<u>(Lb/Gal)</u>	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>
Five Conveyorized Degreasers With Parts Dryer(s)	420	5,000	6.44	14.81	16.1
Four Cold Stage Cleaning Stations With Parts Dryer(s)	111.4	1,337	6.7	4.31	4.5

These limits are based on solvent usage, operating hours, and material balance.

- b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.
 - c. The Permittee shall use only Drakesol 310 as conveyorized degreaser solvent.
- 4a. For determination of compliance with the limits of this permit, solvent usage in the degreasers and cold cleaners shall be determined by the following equation:

$$U = V - (W \times P)$$

Where:

- U = Solvent usage for compliance determinations (gallons).
- V = Virgin solvent^A added to the solvent cleaning machines (gallons), as determined by daily addition log sheets.
- W = Waste solvent^B removed from the solvent cleaning machines and sent off-site for reclamation or disposal, as determined by monthly manifests.
- P = Percent concentration of solvent in waste, as determined by analysis/testing^C.

^A For purposes of this permit, virgin solvent is defined as unused solvent.

^B For purposes of this permit, waste solvent is defined as used solvent.

c. The percent concentration of solvent in waste (P) shall be determined in accordance with USEPA Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW-846), Test Method 8260.

- b. Compliance with the monthly organic material emission limits shall be calculated using the solvent density as specified in the Material Safety Data Sheet, and the solvent usage (U) per month, as follows:

$$\begin{aligned} \text{Emissions} &= \text{Solvent Usage (U)} \times \text{Solvent Density} \\ (\text{lbs/month}) &= (\text{gallon/month}) \quad \times \quad (\text{lbs/gallon}) \end{aligned}$$

5. This permit is issued based on negligible emissions of volatile organic material (VOM) from the rustproofing process. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
6. The emissions of hazardous air pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a Clean Air Act Permit Program permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a Clean Air Act Permit Program permit from the Illinois EPA.
7. No person shall operate a cold cleaning degreaser unless:
- a. Waste solvent is stored in covered containers only and is not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
 - b. The cover of the degreaser is closed when parts are not being handled;
 - c. Parts are drained until dripping ceases;
 - d. The degreaser is equipped with a cover which is closed whenever parts are not being handled in the cleaner. The cover shall be designed to be easily operated with one hand or with the mechanical assistance of springs, counter weights, or a power system if:
 - i. The solvent vapor pressure is greater than 2 kPa (15 mmHg or 0.3 psi) measured at 38EC (100EF);
 - ii. The solvent is agitated; or

- iii. The solvent is heated above ambient room temperature.
 - e. The degreaser is equipped with a device for draining cleaned parts. The drainage device shall be constructed so that parts are enclosed under the cover while draining unless;
 - i. The solvent vapor pressure is less than 4.3 kPa (32 mmHg or 0.6 psi) measured at 38EC (100EF); or
 - ii. An internal drainage device cannot be fitted into the cleaning system, in which case the drainage device may be external.
 - f. The degreaser is equipped with one of the following control devices if the vapor pressure of the solvent is greater than 4.3 kPa (32 mmHg or 0.6 psi) measured at 38EC (100EF) or if the solvent is heated above 50EC (120EF) or its boiling point;
 - i. A freeboard height of 7/10 of the inside width of the tank or 91 cm (36 inches), whichever is less; or
 - ii. Any other equipment or system of equivalent emission control as approved by the Illinois EPA and further processed consistent with Section 218.108 of this Part. Such a system may include a water cover, refrigerated chiller or carbon absorber.
 - g. A permanent conspicuous label summarizing the operating procedure is affixed to the degreaser; and
 - h. If a solvent spray is used, the degreaser is equipped with a solid fluid stream spray, rather than a fine, atomized or shower spray.
8. No person shall operate a conveyORIZED degreaser unless:
- a. Exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of area of loading and unloading opening is not used, unless necessary to meet the requirements of the occupational Safety and Health Act (29 U.S.C. Section 651 et seq.);
 - b. Solvent carry-out emissions are minimized by:
 - i. Racking parts for best drainage; and
 - ii. Maintaining the vertical conveyor speed at less than 3.3 M/min (11 ft/min);

- c. Waste solvent is stored in covered containers only and is not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
 - d. Solvent leaks are repaired immediately;
 - e. Downtime covers are placed over entrances and exits of conveyORIZED degreasers immediately after the conveyors and exhausts are shut down and not removed until just before startup;
 - f. The degreaser is equipped with a drying tunnel, rotating (tumbling) basket or other equipment sufficient to prevent cleaned parts from carrying out solvent liquid or vapor; and
 - g. The degreaser is equipped with openings for entrances and exits that silhouette workloads so that the average clearance between the parts and the edge of the degreaser opening is less than 10 cm (4 inches) or less than 10 percent of the width of the opening.
- 9a. The Permittee shall maintain monthly records of the following items:
- i. The name and identification number of each solvent containing cleaning material.
 - ii. The throughput (gal/month), density (lb/gal), VOM content (weight percent or lb/gal), and vapor pressure (kPa) of each solvent containing cleaning material.
 - iii. The emission of VOM for current month plus the running total for the previous 11 months (ton/month, ton/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
10. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedances or violation and efforts to reduce emissions and future occurrences.

11. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Eisenhower Tower
1701 First Avenue
Maywood, Illinois 60153

12. The annual emissions of regulated air pollutants shall not exceed twenty one (21) tons, which shall be the permitted emissions for this site.
13. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:
 - a. Names and amounts of cleaning materials with solvents used (gal/yr) and their VOM and HAP content (lb/gal); and
 - b. The annual VOM and HAP emissions from these materials plus any other facility emission unit VOM and HAP emissions.

If you have any questions on this permit, please call John Blazis at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JPB:jar

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
USEPA
Lotus Notes
PCF #14

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the bearing manufacturing plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. This is a usage of 5,000 gallons of solvent and 1337 gallons of cold cleaning material. The resulting maximum emissions are well below the levels, e.g., 25 tons per year of VOM at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that material is handled (non-halogenated solvent is used), and control measures are more effective than required in this permit.

- 1a. Solvent usage and VOM emissions from five conveyORIZED degreasers with dryer(s) shall not exceed the following limits:

<u>Material</u>	<u>Usage</u>		<u>VOM Content</u>	<u>VOM Emissions</u>	
	<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>	<u>(Lb/Gal)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>
Solvent	420	5,000	6.44	14.81	16.1

- b. Solvent usage and VOM emissions from the four cold cleaning stations with dryers shall not exceed the following limits:

<u>Equipment</u>	<u>Solvent Usage</u>		<u>VOM Content</u>	<u>Volatile Organic Material Emissions</u>	
	<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>	<u>(Lb/Gal)</u>	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>
Four Cold Stage Cleaning Stations With Parts Dryer(s)	111.4	1,337	6.7	4.31	4.5

- c. This permit is issued based on negligible emissions of volatile organic material (VOM) from the rustproofing process. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
- d. As a consequence of the requirements of this permit, the emissions of hazardous air pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from this source will be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs so that HAP emissions do not trigger the requirements to obtain a Clean Air Act Permit Program permit from the Illinois EPA.