

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - RENEWAL

PERMITTEE

Klein Tools, Inc.  
Attn: Russell Winnie  
7200 North McCormick Boulevard  
Skokie, Illinois 60076

Application No.: 73060302

I.D. No.: 031288AAK

Applicant's Designation:

Date Received: January 31, 2005

Subject: Heat Treat Plant

Date Issued:

Expiration Date:

Location: 7200 North McCormick Boulevard, Skokie

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of one (1,878 Hp) diesel engine cogeneration unit, two (6.3 mmBtu/hr) natural gas-fired boilers, 50 heaters, ten heat treat furnaces, 2 gas generators, one zinc plating line, plastisol and rust preventative coating operations, one oil heater, 2 plastisol dryers, 3 parts washers, quench oil operations, 3 bluing machines, and a black oxide system, 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., less than 100 tons/year for nitrogen oxides (NO<sub>x</sub>) and 25 tons/year of volatile organic material (VOM)), as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program 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 permit(s) issued for this location including permits effective pursuant to 415 ILCS 5/39.5(4).
2. Operation and emissions of the fuel combustion equipment shall not exceed the following limits:
  - a. Diesel Engine: Fuel Usage: 42,000 gallons/month, 210,000 gallons/year

## Cogeneration Unit:

<u>Pollutant</u>	Emission	Emissions	
	Factors (Lb/mmBtu)	(Tons/Mo)	(Tons/Yr)
Nitrogen Oxides (NO <sub>x</sub> )	3.2	9.4	47.0
Carbon Monoxide (CO)	0.85	2.5	12.5
Sulfur Dioxide (SO <sub>2</sub> )	0.3	0.9	4.4
Volatile Organic Material (VOM)	0.09	0.3	1.3
Particulate Matter (PM)	0.1	0.3	1.5

## b. All Natural Gas-Fired Equipment:

Natural Gas Usage: 26 mmscf/mo, 260 mmscf/yr

<u>Pollutant</u>	Emission	Emissions	
	Factors (Lb/mmBtu)	(Tons/Mo)	(Tons/Yr)
Nitrogen Oxides (NO <sub>x</sub> )	100	1.3	13.0
Carbon Monoxide (CO)	84	1.1	10.9
Particulate Matter (PM)	7.6	0.1	1.0
Volatile Organic Material (VOM)	5.5	0.07	0.7

These limits are based on standard emission factors given by AP-42 and sulfur content in the diesel fuel of 0.3%. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

- c. This permit is issued based on emissions of carbon monoxide (CO) from each fuel combustion emission unit not exceeding 200 ppm corrected to 50% excess air, pursuant to 35 Ill. Adm. Code 216.121.
- d. Pursuant to 35 Ill. Adm. Code 214.122(b)(2), No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 73.2 MW (250 mmBtu/hour), burning liquid fuel exclusively to exceed 0.3 lbs of sulfur dioxide per mmBtu of actual heat input when distillate fuel oil is burned. For this purpose, the sulfur content in the diesel fuel shall not exceed 0.3% by weight.
- e. Organic liquid by-products or waste materials shall not be used in any fuel combustion emission source without written approval from the Illinois EPA.
- f. The Illinois EPA shall be allowed to sample all fuels stored at the above location.

- g. The Permittee shall notify the Illinois EPA prior to any change in the type of fuel used at the source.
  - h. Distillate fuel oil shall be the only fuel burned in the diesel engine cogeneration unit and natural gas in all the other units covered under this permit.
- 3a. The volatile organic material (VOM) content of the coatings as applied for the rust preventative and plastisol coating operations shall not exceed 2.8 lb/gal for baked coatings and 3.3 lb/gal for all other air dried coatings (minus water and exempt compounds which are specifically exempted from the definition of VOM) pursuant to 35 Ill. Adm. Code 218.204(j) (4) (A).
- b. The VOM emissions from the rust preventative and plastisol coating operations, including all clean-up operations, shall not exceed 3.7 ton/mo and 7.5 ton/yr. The emissions shall be determined from the following equation:

$$E = \sum (Ct_i \times C_i) + \sum (S_j \times C_j)$$

Where:

- E - VOM Emissions (lb)
- Ct<sub>i</sub> - Coating Usage (gal)
- C<sub>i</sub> - VOM Content of the Coating (lb/gal)
- S<sub>j</sub> - Clean-Up Solvent Usage (gal)
- C<sub>j</sub> - VOM Content of the Solvent (lb/gal)

Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

4. Emissions and operation of the quench oil process shall not exceed 1.3 tons/mo and 13 tons/yr. This is based on the amount of quench oil used minus the amount reclaimed and shipped off-site. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.
- 5a. This permit is issued based on negligible emissions of particulate matter from the zinc plating line, 10 heat treating furnaces, 3 parts washers, 3 bluing machines and black oxide system. For this purpose, emissions from each unit shall not exceed nominal emission rates of 0.1 lbs/hour and 0.44 tons/year for a total of 7.9 tons/year.
- b. This permit is also issued based on no VOM used in the units listed in Condition 5(a) above.

6. The Permittee shall maintain monthly records of the following items:
  - a. Natural gas usage (mmscf/month and mmscf/year);
  - b. Diesel fuel usage (gallons/month and gallons/year);
  - c. Heat content of fuel oil used (Btu/gallon);
  - d. Sulfur content of fuel oil used (% by Weight);
  - e. Names and amounts of coatings used (gallons/month, gallons/year) and their VOM and HAP contents (lb/gallon or weight %);
  - f. Amount of quench oil used and amount reclaimed and shipped off-site (tons/month and tons/year); and
  - g. VOM, NO<sub>x</sub>, CO, SO<sub>2</sub> and HAP emissions with supporting calculations (tons/month and tons/year).
7. All records and logs required by this permit shall be completed by the last day of the month following the reported month and 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 the Illinois EPA or USEPA request for records during the course of a source inspection.
8. 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 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 exceedance or violation and efforts to reduce emissions and future occurrences.
9. 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 regional office at the following address unless otherwise indicated:

Page 5

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 West Harrison  
Des Plaines, Illinois 60016

If you have any questions on this, please call Randy Solomon at 217/782-2113.

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

DES:RBS:jar

cc: Illinois EPA, FOS Region 1  
Lotus Notes

Attachment A

This attachment provides a summary of the maximum emission from the Tool 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 source. The resulting maximum emissions are below 100 tons per year of NO<sub>x</sub> and 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, and control measures are more effective than required in this permit.

<u>Equipment</u>	<u>VOM (T/Yr)</u>	<u>NOx (T/Yr)</u>	<u>CO (T/Yr)</u>	<u>SO2 (T/Yr)</u>	<u>PM (T/Yr)</u>
Diesel Engine Cogeneration Unit	1.3	47	12.5	4.4	1.5
Coatings and Clean-Up	7.5				
Natural Gas	0.7	13	10.9		
Quench Oil	13.0				
All Other Units					<u>7.9</u>
Totals:	<u>22.5</u>	<u>60</u>	<u>23.4</u>	<u>4.4</u>	<u>9.4</u>

RBS:jar