Lawrence W Grauvogel
Northern Electric Company, Inc.
116 North Hill Street
South Bend, IN 46617

Re: Registered Operation Status,
141-13624-00096

Dear Lawrence Grauvogel:

The application from Northern Electric Company, Inc. received on December 13, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following, to be located at 116 North Hill Street, South Bend, Indiana 46617, is classified as registered:

The facility consists of the following permitted emission units and pollution control devices:

(a) One (1) natural gas fired boiler, designated as B -1, capacity of 1.08 MMBtu/hr, exhausting through the stack # 4, gas discharge temperature 500 ^{0}F.

(b) One (1) natural gas fired incinerator, designated as BB-26, consist of primary and secondary chambers, total heat capacity of 0.32 MMBtu/hr, exhausting through the stack # 1, gas discharge temperature 1400 ^{0}F.

(c) One (1) natural gas fired incinerator, designated as BB-150, consist of primary and secondary chambers, total heat capacity of 1.15 MMBtu/hr, exhausting through the stack # 2, gas discharge temperature 1400 ^{0}F.

(d) One (1) Steelman Electric curing oven, Rating 18 kilowatts, exhausting through the stack # 3, gas discharge temperature 275 ^{0}F.

(e) One (1) Housing spray paint booth, capacity 350 Lb/hr, method of application: high volume low pressure (HVLP), exhausting through the stack # EX-1, gas discharge temperature is 70 ^{0}F, using dry filters to control emissions.

(f) One (1) servo motor spray paint booth, capacity 87.5 Lb/hr, method of application: high volume low pressure (HVLP), exhausting through the stack # EX-3, exhaust gas discharge temperature 70 ^{0}F, using dry filters to control emissions.

(g) One Varnish dip tank, capacity 15 armatures/stators per hour (327 Lb/hr.), method of application: dipping, fugitive emissions at ambient temperature.

326 IAC 5-1 (Visible Emissions Limitations)

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

(a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

326 IAC 4-2-2 (Incinerator)

Pursuant to 326 IAC 4-2-2 (Incinerator) all incinerators shall:

(1) consist of primary and secondary chambers or the equivalent.
(2) be equipped with a primary burner unless burning wood products;
(3) comply with 3d26 IAC 5-1 and 326 IAC 2;
(4) be maintained properly as specified by the manufacturer and approved by the commissioner;
(5) be operate according to the manufacturer's recommendations and only burn waste operation of incinerators;
(6) comply with other state and/ or local rules or ordinances regarding instalation and operation of incinerators;
(7) be operate so that the emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
(8) not emit particulate matter in excess of:
    (a) all other incinerators: five tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air; and
(9) not create a nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

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

Pursuant to 326IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), the PM emissions from the natural gas fired boiler shall not exceed 0.60 pounds of particulate matter per million (MM) Btu heat input.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operation) the particulate matter (PM) from the paint booths shall not exceeded the pound per hour emission rate established as E in the following formulae limited by the following. Interpolation and extrapolation 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 dry filters shall be in operation at all times when the paint booths are in operation, in order to comply with this limit.

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

Pursuant to 326 IAC 8-2-9(d)(1), the clear coatings applied to the armatures and stators in the dip tank shall be limited to 4.3 pounds of VOC per gallon of coating, excluding water.

Any change or modification which would increase the actual emission of VOC from coating metal to fifteen (15) pounds per day or more in either one of the paint booths shall obtain prior approval from IDEM, OAQ and shall be subject to the requirements of 326 IAC 8-2-9. The

source shall maintain records of coating usage in order to show compliance with the fifteen pounds of VOC per day requirement.

This registration is a revised registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the facility is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

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

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

MZK

cc: File - St. Joseph County
St. Joseph County Health Department
Air Compliance - Rick Reynolds
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

Company Name: Northern Electric Company, Inc.
Address: 116 North Hill Street
City: South Bend
Authorized individual: Lawrence W Grauvogel
Phone #: (219)-277-4770
Registration #:141-13624-00096

I hereby certify that Northern Electric Company, Inc. is still in operation and is in compliance with the requirements of Registration **141-13624-00096**.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a **Registration**

Source Name:	**Northern Electric Company, Inc.**
Source Location:	**116 North Hill Street, South Bend, IN 46617**
County:	**St. Joseph**
SIC Code:	**7694**
Operation Permit No.:	**141-13624-00096**
Permit Reviewer:	**Mohammad Z Khan**

The Office of Air Quality (OAQ) has reviewed an application from Northern Electric Company, Inc. relating to the operation of Electric Motor Repair/Rewind facilities with painting.

Permitted Emission Units and Pollution Control Equipments:

The facility consists of the following permitted emission units and pollution control devices:

(a) One (1) natural gas fired boiler, designated as B -1, capacity of 1.08 MMBtu/hr, exhausting through the stack # 4, gas discharge temperature 500 ^{0}F.

(b) One (1) natural gas fired incinerator, designated as BB-26, consist of primary and secondary chambers, total heat capacity of 0.32 MMBtu/hr, exhausting through the stack # 1, gas discharge temperature 1400 ^{0}F.

(c) One (1) natural gas fired incinerator, designated as BB-150, consist of primary and secondary chambers, total heat capacity of 1.15 MMBtu/hr, exhausting through the stack # 2, gas discharge temperature 1400 ^{0}F.

(d) One (1) Steelman Electric curing oven, Rating 18 kilowatts, exhausting through the stack # 3, gas discharge temperature 275 ^{0}F.

(e) One (1) Housing spray paint booth, capacity 350 Lb/hr, method of application: high volume low pressure (HVLP), exhausting through the stack # EX-1, gas discharge temperature is 70 ^{0}F, using dry filters to control emissions.

(f) One (1) servo motor spray paint booth, capacity 87.5 Lb/hr, method of application: high volume low pressure (HVLP), exhausting through the stack # EX-3, exhaust gas discharge temperature 70 ^{0}F, using dry filters to control emissions.

(g) One Varnish dip tank, capacity 15 armatures/stators per hour (327 Lb/hr.), method of application: dipping, fugitive emissions at ambient temperature.

Existing Approvals

The source has been operating under previous registration 141-4557-00096, issued on September 18, 1995. The facility submitted as application for the renewal of registration to OAQ on December 13, 2000.

Enforcement Issue

There are no enforcement actions pending.

Stacks Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
Ex - 1	Exhaust from Housing spray booth	11.0	2.50	11,000	70
Ex - 3	Exhaust from servo Motor Spray booth	19.50	1.33	22.40	70
# 1	Exhaust from Oven BB-26	29.50	0.67	2,030	1,400
# 2	Exhaust from Oven BB-150	29.50	1.34	525	1,400
# 3	Exhaust from the Curing Oven	26.0	0.50	360	275
# 4	Exhaust from the Boiler B-1	29.50	1.67	410	500

Recommendation

The staff recommends to the commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. The additional information received on March 6, 2001.

Emissions Calculations

See Appendix A of this document for detailed emissions calculations (5 pages).

Potential To Emit Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM/PM-10	1.70
SO_2	0.00
VOC	13.11
CO	0.20
NOx	1.10

HAP's	Potential To Emit (tons/year)
Formaldehyde	0.02
Methanol	0.10
Toluene	0.58
Xylene	7.98
Glycol ether	0.93
Combination of HAPs	**9.61**

(a) The potential to emit (as defined in 326 IAC 2-7-1 (29)) of pollutants are less than 25 tons per year. Particulate matter (PM) are more than five (5) tons per year in this facility. Therefore, the facility is subject to the provisions of 326 IAC 2-5.5-1(b).

County Attainment Status

The source is located in St. Joseph County.

Pollutants	Status **(attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)**
PM/PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Maintenance
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as maintenance, attainment for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) St. Joseph County has been classified as attainment or unclassifiable for PM/PM-10, SO_2,NOx, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing facility PSD, Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM/PM-10	0.05
SO_2	0.00
VOC	13.11
CO	0.20
NOx	1.10
Single HAP	7.98
Combination of HAPs	9.61

This existing facility is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing facility is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the facility. This status has been verified by the OAQ inspector assigned to the facility.

Federal Rule Applicability

(a) The boiler is not subject to the requirements of the New Source Performance Standard (NSPS) 326 IAC 12, (40 CFR 60, Subpart Dc), due to the boiler capacity being less than 10 MMBtu/hr.

(b) The incinerators are not subject to the requirements of the New Source Performance Standard (NSPS) 326 IAC 12, (40 CFR 60, Subpart E), due to the incinerators capacity being less than 50 tons per day.

(c) There are no other New Source Performance Standards (NSPS) (326 IAC 12) applicable to this facility.

(d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 20 and 40 CFR Part 63) applicable to this facility.

State Rule Applicability

326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because, the facility is located in St. Joseph County and it has the VOC potential to emit (PTE) more than ten (10) tons per year. Pursuant to this rule, the owner/operator of the facility must annually submit an emission statement for the facility. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

This source is in the area of St. Joseph County, north of Kern Road and east of Pine Road. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) 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.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major source of Hazardous Air Pollutants (HAPs)) July 27, 1997

The operation of the paint booth predates this rule. The facility will emit less than 10 tons per year of single HAP or 25 tons per year of combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 4-2-2 (Incinerator)

Pursuant to 326 IAC 4-2-2 (Incinerator), the PM emissions from the tow (2) natural gas fired incinerators shall not exceed 0.50 pounds of particulate matter per 1,000 pounds of dry exhaust gas corrected to 50% excess air. Both the primary and secondary burners shall be operated at all times except when shut off by a built in safety device. The manufacturer guaranteed the emission rate to be 0.128 pound per 1000 pound. Therefore, it meets the requirements of the rule. The PM emissions from this facility is 0.012 pound per MMBtu. Therefore, these incinerators meets the requirements of the rule.

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

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), the PM emissions from the natural gas boiler shall not exceed 0.60 pounds of particulate matter per million (MM) Btu heat input.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operation) the particulate matter (PM) from the paint booths shall not exceeded the pound per hour emission rate established as E in the following formulae limited by the following. Interpolation and extrapolation 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 dry filters shall be in operation at all times when the paint booths are in operation, in order to comply with this limit.

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

The coating for the dip tank is a clear coat. Pursuant to 326 IAC 8-2-9(d)(1), no owner or operator of a facility engaged in the surface coating of miscellaneous metal parts and products may cause, allow, or permit the discharge into the atmosphere VOC in excess of 4.3 pounds per gallon of coating excluding water. The varnish applied to the motors and stators is 4.25 pounds of VOC per gallon of coating excluding water. Therefore, it meets the requirements of the rule.

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

The coatings for the servo motor spray booth and the housing spray booth are used at an actual rate of less than 15 pounds per day of VOC emissions. Therefore, this rule does not apply.

Conclusion

The operation of Electric Motor Repair/ Rewind facilities with painting works shall be subject to the conditions of the attached proposed **Registration 141-13624-00096.**

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Electric Motor Repair/Rewind facilities
Company Name: Northern Electric Company, Inc.
Address City IN Zip: 116 North Hill Street, South Bend, IN 46617
CP: 141-13624
Plt ID: 141-00096
Reviewer: Mohammad Khan
Date: Jan 25, 2001

Material name and ID	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/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/yr**	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
DIP TANK																
Varnish	7.8	54.50%	0.0%	54.5%	0.0%	40.60%	0.03120	15.000	4.25	4.25	1.99	47.75	8.71	0.00	10.47	100%
HAND WIPE																
xylene	7.2	100.00%	0.0%	100.0%	0.0%	0.00%	0.00480	15.000	7.23	7.23	0.52	12.49	2.28	0.00	ERR	
SPRAY BOOTH																
Enamel	9.8	35.60%	17.3%	18.3%	20.0%	41.70%	0.01440	15.000	2.24	0.82	0.18	4.25	0.78	1.50	4.31	75%
Thinner	6.7	100.00%	0.0%	100.0%	0.0%	0.00%	0.00780	15.000	6.70	2.62	0.31	7.36	1.34	0.00	ERR	

State Potential Emissions **Add worst case coating to all solvents** **2.99** **71.85** **13.11** **1.50**
Actual Emissions, VOC Tons/year, (Actual hours 2080 hr/yr) **3.11**

METHODOLOGY

Actual emissions spray booth = 4.25 + 7.36 /3 = 3.87 lb/day

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

Natural Gas Combustion Only

MM BTU/HR <10

Electric Motor Repair/Rewind facilities

Company Name: **Northern Electric Company, Inc.**

Address City IN Zip: **116 North Hill Street, South Bend, IN 466 IN 46761**

CP: **141-13624**

Plt ID: **141-00096**

Reviewer: Mohammad Khan

Date: March 12, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.6	22.3

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	11.9	11.9	0.6	100.0	5.3	21.0
Potential Emission in tons/yr	0.1	0.1	0.0	1.1	0.1	0.2

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-03-006-03
(SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR 0.3 < 10
Electric Motor Repair/Rewind facilities
HAPs Emissions
Company Name: **Northern Electric Company, Inc**
Address City IN Zip: **116 North Hill Street, South Bend, IN 46617**
CP: **141-13624**
Plt ID: **141-00096**
Reviewer: Mohammad Khan
Date: January 25, 2001

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	2.345E-05	1.340E-05	8.377E-04	2.010E-02	3.797E-05

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	5.584E-06	1.229E-05	1.564E-05	4.244E-06	2.345E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: **Northern Electric Company, Inc.**
Address City IN Zip: **116 North Hill Street, South Bend, IN 46617**
CP #: 141-13624
Plt ID: 141-00096
Permit Reviewer: Mohammad Z Khan
Date: March 12, 2001

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
Xylene	7.2	0.004800	15.00	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.27	0.00	0.00	0.00	0.00	0.00	0.00
Varnish	7.8	0.031200	15.00	35.70%	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	5.71	0.00	0.02	0.00	0.00	0.00	0.00
Enamel	9.83	0.014400	15.00	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.93	0.00
Thinner	6.65	0.007800	15.00	0.00%	17.00%	0.00%	0.00%	0.00%	0.00%	3.00%	0.00	0.58	0.00	0.00	0.00	0.00	0.10
				0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total State Potential Emissions **7.98** **0.58** **0.02** **0.00** **0.00** **0.93** **0.10**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

hapcalc.wb3

Emissions Calculation

Northern Electric Company, Inc
CP : 141-13624
Pit. ID : 141-00096
Reviewer : Mohammad Z Khan
Date : March 12, 2001

(1):: Emissions in the facility (tons/yr):

	PM/PM-10	SO_2	VOC	CO	NOx	HAPs
Boiler B-1, Incinerators BB-26/150	0.20	0.00	0.00	0.20	1.10	0.00
Paint booths, Varnish dip tank	1.50	0.00	13.11	0.00	0.00	9.61
Total	**1.70**	**0.00**	**13.11**	**0.20**	**1.10**	**9.61**

.

(2):: Emissions Summary (tons/yr) in the facility after control:

	PM/PM-10	SO_2	VOC	CO	NOx	HAPs
Boiler B-1, Incinerators BB-26/150	0.20	0.00	0.00	0.20	1.10	0.00
Paint booths, Varnish dip tank	1.50	0.00	13.11	0.00	0.00	9.61
Total	**1.70**	**0.00**	**13.11**	**0.20**	**1.10**	**9.61**

(3):: PM/PM-10 Emissions after dry filters:

The efficiency of emission control equipment (dry filters) in the paint booths are 97%. Therefore, PM/PM-10 after dry filters is **0.05 tons/yr**.