MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

September 5, 2008

PERMIT TO INSTALL

No. 72-99C

ISSUED TO

ND Industries, Inc.

LOCATED AT

1000 North Crooks Clawson, Michigan 48017

IN THE COUNTY OF

Oakland

STATE REGISTRATION NUMBER

N6577

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: 8/25/2008			
DATE PERMIT TO INSTALL APPROVED: 9/5/2008	SIGNATURE:		
DATE PERMIT VOIDED:	SIGNATURE:		
DATE PERMIT REVOKED:	SIGNATURE:		

PERMIT TO INSTALL

Table of Contents

Section	Page
Alphabetical Listing of Common Abbreviations / Acronyms	2
General Conditions	3
Emission Unit Identification	5
Flexible Group Identification	5
Flexible Group Special Conditions: 1. FGCOATING	6
Flexible Group Special Conditions: 2. FGFACILITY	8

Common Abbreviations / Acronyms

Common Appreviations / Acronyms Pollutant / Massurement Abbroviations				
A O D	Common Acronyms	Pollutant / Measurement Abbreviations		
AQD	Air Quality Division	Btu	British Thermal Unit	
BACT	Best Available Control Technology	°C	Degrees Celsius	
CAA	Clean Air Act	CO	Carbon Monoxide	
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot	
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter	
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit	
EPA	Environmental Protection Agency	gr	Grains	
EU	Emission Unit	Hg	Mercury	
FG	Flexible Group	hr	Hour	
GACS	Gallon of Applied Coating Solids	H ₂ S	Hydrogen Sulfide	
GC	General Condition	hp	Horsepower	
HAP	Hazardous Air Pollutant	lb	Pound	
HVLP	High Volume Low Pressure *	m	Meter	
ID	Identification	mg	Milligram	
LAER	Lowest Achievable Emission Rate	mm	Millimeter	
MACT	Maximum Achievable Control Technology	MM	Million	
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts	
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen	
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter	
MSDS	Material Safety Data Sheet	PM-	Particulate Matter less than 10	
		10	microns diameter	
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour	
NSPS	New Source Performance Standards	ppm	Parts per million	
NSR	New Source Review	ppmv	Parts per million by volume	
PS	Performance Specification	ppmw	Parts per million by weight	
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute	
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge	
PTI	Permit to Install	scf	Standard cubic feet	
RACT	Reasonable Available Control Technology	sec	Seconds	
ROP	Renewable Operating Permit	SO ₂	Sulfur Dioxide	
SC	Special Condition Number	THC	Total Hydrocarbons	
SCR	Selective Catalytic Reduction	tpy	Tons per year	
SRN	State Registration Number	μg	Microgram	
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds	
VE	Visible Emissions	yr	Year	

^{*} For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

- 1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. (R 336.1201(1))
- 2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. (R 336.1201(4))
- 3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. (R 336.1201(6)(b))
- 4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. (R 336.1201(8), Section 5510 of Act 451, PA 1994)
- 5. The AQD District Supervisor shall be notified, in writing, of a change in ownership or operational control of the stationary source or emission unit(s) authorized by this Permit to Install pursuant to R 336.1219. The notification shall include all of the information required by R 336.1219(1)(a) and (b). In addition, a new owner or operator must submit a written statement pursuant to R 336.1219(1)(c), agreeing to and accepting the terms and conditions of this Permit to Install, and shall notify the AQD District Supervisor of any change in the contact person for this Permit to Install. (R 336.1219)
- 6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. (R 336.1901)
- 7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). (R 336.1912)

- 8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
- 9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law nor does it affect any liability for past violations under the Natural Resources and Environmental Protection Act, 1994 PA 451.
- 10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.
- 11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. (R 336.1301)
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this permit to install.
- 12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). (R 336.1370)
- 13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. (R 336.2001)

SPECIAL CONDITIONS

Emission Unit Identification

Emission Unit ID	Emission Unit Description	Stack Identification			
EUMICRO1	Magnetic dial, drip flow or flow coating line which	SVOVENA,			
	coats male parts, also includes associated natural gas oven.	SVAPPLICATION1			
EUMICRO2	Magnetic dial, drip flow or flow coating line which coats male parts, also includes associated drying belt.	SVOVENB, SVAPPLICATION 1			
EUMICRO3	Magnetic dial, drip flow or flow coating line which coats male parts, also includes associated natural gas oven.	SVOVENC, SVAPPLICATION 1			
EUMICRO4	Magnetic dial, drip flow or flow coating line which coats male parts, also includes associated natural gas oven.	SVOVEND, SVAPPLICATION 2			
EUMICRO5	Magnetic dial, drip flow or flow coating line which coats male parts, also includes associated drying belt.	SVOVENE, SVAPPLICATION 2			
EUMICRO13	Conveyor belt, metered flow coating line which coats male parts, also includes associated natural gas oven.	SVOVENI, SVAPPLICATION3			
EUMICRO14	Magnetic dial, drip flow or flow coating line which coats male parts. Proposed New Line, i.e. Replacement.	SVAPPLICATION 3			
EULINEAR	Magnetic conveyor belt, metered flow coating line which coats male parts.	NA			
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.					

Flexible Group Identification

Flexible Group ID	Emission Units Included in Flexible Group	Stack Identification
FGCOATING	EUMICRO1, EUMICRO2, EUMICRO3,	SVOVENA, SVOVENB,
	EUMICRO4, EUMICRO5, EUMICRO13,	SVOVENC, SVOVEND,
	EUMICRO14, and EULINEAR	SVOVENE, SVOVENI,
		SVAPPLICATION 1,
		SVAPPLICATION 2,
		SVAPPLICATION 3
FGFACILITY	All equipment at the stationary source including	NA
	equipment covered by other permits,	
	grandfathered equipment and exempt equipment.	

The following conditions apply to: 1. FGCOATING

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
1.1a	VOCs	Each individual Emission Unit in FGCOATING	10.0 tpy	12-month rolling time period as determined at the end of each calendar month.	SC 1.7 – SC 1.9	R 336.1621(10)
1.1b	VOCs	Each individual Emission Unit in FGCOATING	2000 lbs per month	Calendar month	SC 1.7 – SC 1.9	R 336.1621(10)

Process / Operational Limits

- 1.2 The permittee shall recover and reclaim, recycle, or dispose of all coatings, purge and clean-up solvents, etc. (materials), in accordance with all applicable regulations. (R 336.1702(a))
- 1.3 The permittee shall capture all waste materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. (R 336.1225, R 336.1702(a))
- 1.4 The permittee shall handle all VOC and/or HAP containing materials, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. (R 336.1205(3), R 336.1225, R 336.1702(a), R 336.1901)

Equipment

1.5 The permittee shall equip and maintain each individual Emission Unit in FGCOATING with drip flow or flow coating equipment or equivalent technology with comparable transfer efficiency. (R 336.1702(a))

Testing

1.6 The VOC content, water content, and density of any material, as applied and as received, shall be determined using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the VOC content may be determined from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the Method 24 results shall be used to determine compliance. (R 336.1205(3), R 336.1225, R 336.1621(10), R 336.1901, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))

Recordkeeping /Reporting /Notification

- 1.7 All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. (R 336.1205(3), R 336.1225, R 336.1621(10), R 336.1901)
- 1.8 The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. (R 336.1225, R 336.1621(10), R 336.1901)

- 1.9 The permittee shall keep the following information on a monthly basis for each individual Emission Unit in FGCOATING:
 - a) Gallons (with water) of each material used and reclaimed.
 - b) VOC content (minus water and with water) of each material as applied.
 - c) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. (R 336.1205(3), R 336.1621(10))

Stack / Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement	
1.10a	SVOVENA	16.0	36.0	R 336.1225, R 336.1901,	
				R 336.2803, R 336.2804,	
4 401	0) (0) (5) 15	40.0	000	40 CFR 52.21(c) & (d)	
1.10b	SVOVENB	16.0	36.0	R 336.1225, R 336.1901,	
				R 336.2803, R 336.2804,	
4.40-	C)/O)/ENC	40.0	20.0	40 CFR 52.21(c) & (d)	
1.10c	SVOVENC	16.0	36.0	R 336.1225, R 336.1901,	
				R 336.2803, R 336.2804,	
4 404	SVOVEND	16.0	20.0	40 CFR 52.21(c) & (d)	
1.10d	SVOVEND	16.0	36.0	R 336.1225, R 336.1901,	
				R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)	
1.10e	SVOVENE	16.0	36.0	R 336.1225, R 336.1901,	
1.106	SVOVEINE	10.0	30.0	R 336.2803, R 336.2804,	
				40 CFR 52.21(c) & (d)	
1.10f	SVOVENI	16.0	36.0	R 336.1225, R 336.1901,	
1.101	OVOVEIVI	10.0	30.0	R 336.2803, R 336.2804,	
				40 CFR 52.21(c) & (d)	
1.10g	SVAPPLICATION1	26.0	36.0	R 336.1225, R 336.1901,	
09		20.0	00.0	R 336.2803, R 336.2804,	
				40 CFR 52.21(c) & (d)	
1.10h	SVAPPLICATION2	26.0	36.0	R 336.1225, R 336.1901,	
				R 336.2803, R 336.2804,	
				40 CFR 52.21(c) & (d)	
1.10i	SVAPPLICATION3	26.0	36.0	R 336.1225, R 336.1901,	
				R 336.2803, R 336.2804,	
				40 CFR 52.21(c) & (d)	
	The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

The following conditions apply to: 2. FGFACILITY

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
2.1a	VOCs	FGFACILITY	30.0 tpy	12-month rolling time period as determined at the end of each calendar month.	SC 2.3 - SC 2.5	R 336.1621(10), R 336.1205(3)
2.1b	Each Individual HAP	FGFACILITY	Less than 9.0 tons per year.	12-month rolling time period as determined at the end of each calendar month.	SC 2.3, SC 2.4, & SC 2.6	R 336.1205(3)
2.1c	Aggregate HAPs	FGFACILITY	Less than 22.5 tons per year.	12-month rolling time period as determined at the end of each calendar month.	SC 2.3, SC 2.4, & SC 2.6	R 336.1205(3)

Testing

2.2 The HAP content of any coatings, purge and clean-up solvents, etc. (material) as received and as applied, shall be determined using manufacturer's formulation data. Upon request of the AQD District Supervisor, the manufacturer's HAP formulation data shall be verified using EPA Test Method 311. (R 336.1205(3))

Recordkeeping / Reporting / Notification

- 2.3 All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. (R 336.1205(3))
- 2.4 Research and Development (R&D) Manager of ND Industries, Inc., located at 1893 Barrett Drive, Building 2, Troy 48084, shall certify by 15th of each month the material content information (e.g. specific gravity of the material, VOC & HAP %wt., water %wt., Glycol Ether %wt., Toluene %wt., Formaldehyde %wt., Ethyl Benzene %wt., MEK %wt., Xylene %wt., etc.). The Plant Manager of ND Industries, Inc., located at 1000 North Crooks Road, Clawson 48017, shall provide concurring certification of material usage that the coatings are used without the content alteration by dilution with HAP solvents except as authorized by AQD District Supervisor in writing. The company shall not use toluene or any other HAP solvents for thinning and/or clean up without prior approval of the AQD District Supervisor. The certification and the VOC & HAP emission summary report shall be kept on file, in a format acceptable to the AQD District Supervisor, for a period of at least five years and made available to the Department upon request. (R 336.1205(3), R 336.1621(10), R 336.1702(a))

- 2.5 The permittee shall keep the following information on a monthly basis for FGFACILITY:
 - a) Gallons (with water) of each material used.
 - b) VOC content (minus water and with water) of each material as applied.
 - c) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. (R 336.1205(3), R 336.1621(10), R 336.1702(a))

- 2.6 The permittee shall keep the following information on a monthly basis for FGFACILITY:
 - a) Gallons or pounds of each material used.
 - b) Where applicable, gallons or pounds of each material reclaimed.
 - c) HAP content, in pounds per gallon or pounds per pound, of each material used.
 - d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
 - e) Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. (R 336.1205(3))