MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

September 11, 2018

PERMIT TO INSTALL
134-17A

ISSUED TO
PPG Industries, Inc.

LOCATED AT
1855 Industrial Drive
Grand Haven, Michigan

IN THE COUNTY OF
Ottawa

STATE REGISTRATION NUMBER
N2033

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: **July 16, 2018**	
DATE PERMIT TO INSTALL APPROVED: **September 11, 2018**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

Section **Page**

Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
		gr	Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Hg	Mercury
GACS	Gallons of Applied Coating Solids	hr	Hour
GC	General Condition	HP	Horsepower
GHGs	Greenhouse Gases	H_2S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	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	NMOC	Non-methane Organic Compounds
MDEQ	Michigan Department of Environmental Quality	NO_x	Oxides of Nitrogen
		ng	Nanogram
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NA	Not Applicable	PM10	Particulate Matter equal to or less than 10 microns in diameter
NAAQS	National Ambient Air Quality Standards		
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonable Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO_2	Sulfur Dioxide
SCR	Selective Catalytic Reduction	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
		µm	Micrometer or Micron
VE	Visible Emissions	VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 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 48909-7760, 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 terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(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.

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 SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUWEIGHUP	Weigh up scales controlled by baghouse AAF.	1993	FGPCM
EUMIXERST1	Mixers TRM 50A, TRM 50B, FM 100, FM 150, FM 500A, FM 500B, FM 2000D and HM 4200 controlled by Torit No. 1 baghouse. Vents to general in-plant environment.	1993	FGPCM
EUMIXERST2	Mixers FM10A, FM 10B, FM 2000A, FM 200B and FM 2000C controlled by Torit No. 2 baghouse. Vents to general in-plant environment.	1993	FGPCM
EUMIXERST3	Mixers FM 2000E and FM 2000F, controlled by Torit No. 3 baghouse. Vents to general in-plant environment.	1993	FGPCM
EUEXTMP19PCBOND	Plastic extruder line consisting of Bonding Extruder MP-19-PC, Bonding 19 Chill Roll and Grinder ICM 2.4. Controlled by Cyclone/Baghouse ICM 2.4.	1998	FGPCM
EUEXTMP30PCA	Plastic extruder line consisting of Extruder MP-30 PC A, 30A Chill Belt and Grinder ICM 10A. Controlled by Cyclone/Baghouse ICM 10A.	1998	FGPCM
EUEXTMP30PCB	Plastic extruder line consisting of Extruder MP-30 PC B, 30B Chill Belt and Grinder ICM 10B. Controlled by Cyclone/Baghouse ICM 10B.	1998	FGPCM
EUEXTMP30PCC	Plastic extruder line consisting of Extruder BP-30 PC C, 30C Chill Belt and Grinder ICM 12C. Controlled by Cyclone/Baghouse ICM 12C.	1998	FGPCM
EUEXTMP30PCD	Plastic extruder line consisting of Extruder BP-30 PC D, 30D Chill Belt and Grinder ICM 12D. Controlled by Cyclone/Baghouse ICM 12D.	1998	FGPCM
EUEXTXTS56E	Plastic extruder line consisting of Extruder XTS 56 E, 56 Chill Belt and Grinder 40 ACM C. Controlled by Cyclone/Baghouse 40 ACM C.	1998	FGPCM
EUEXTMP65PCA	Plastic extruder line consisting of Extruder MP-65 PC A, 65A Chill Belt and Grinder ICM 60A. Controlled by Cyclone/Baghouse ICM 60A.	1998	FGPCM
EUEXTMP65PCB	Plastic extruder line consisting of Extruder MP-65 PC B, 65B Chill Belt and Grinder ICM 60B. Controlled by Cyclone/Baghouse ICM 60B.	1998	FGPCM
EUEXTMP65PD	Plastic extruder line consisting of Extruder MP-65 PC C, 65C Chill Belt and Grinder ICM 69D. Controlled by Cyclone/Baghouse ICM 69D.	1998	FGPCM
EUEXTMP65PCE	Plastic extruder line consisting of Extruder MP-65 PC D, 65D Chill Belt and Grinder ICM 69E. Controlled by Cyclone/Baghouse ICM 69E.	2013	FGPCM

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUEXTMP65PCF	Plastic extruder line consisting of Extruder MP-65 PC F, 65F Chill Belt and Grinder ICM 69F. Controlled by Cyclone/Baghouse ICM 69F.	2013	FGPCM
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 SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGPCM	Powder coating manufacturing activities; including weighing, mixing, extruding and grinding.	EUWEIGHUP, EUMIXERST1, EUMIXERST2, EUMIXERST3, EUEXTMP19PCBOND, EUEXTMP30PCA, EUEXTMP30PCB, EUEXTMP30PCC, EUEXTMP30PCD, EUEXTXTS56E, EUEXTMP65PCA, EUEXTMP65PCB, EUEXTMP65PD, EUEXTMP65PCE, EUEXTMP65PCF

The following conditions apply to: FGPCM

DESCRIPTION: Powder coating manufacturing activities; including weighing, mixing, extruding and grinding.

Emission Units: EUWEIGHUP, EUMIXERST1, EUMIXERST2, EUMIXERST3, EUEXTMP19PCBOND, EUEXTMP30PCA, EUEXTMP30PCB, EUEXTMP30PCC, EUEXTMP30PCD, EUEXTXTS56E, EUEXTMP65PCA, EUEXTMP65PCB, EUEXTMP65PD, EUEXTMP65PCE and EUEXTMP65PCF.

POLLUTION CONTROL EQUIPMENT: Baghouses and cyclone/baghouse combinations.

I. EMISSION LIMITS

1. The particulate matter (PM) emissions from each baghouse dust collector in FGPCM shall not exceed 0.1 pounds of particulate per 1000 pounds of exhaust gases, calculated on a dry gas basis. **(R 336.1331)**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate the following emission units unless the corresponding baghouse is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the pressure drop as described in the MAP. **(R 336.1224, R 336.1225, R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))**

Emission Unit ID	Corresponding Baghouse
EUWEIGHUP	AAF
EUMIXERST1	Torit No. 1
EUMIXERST2	Torit No. 2
EUMIXERST3	Torit No. 3
EUEXTMP19PCBOND	ICM 2.4
EUEXTMP30PCA	ICM 10A
EUEXTMP30PCB	ICM 10B
EUEXTMP30PCC	ICM 12C
EUEXTMP30PCD	ICM 12D
EUEXTXTS56E	40 ACM C
EUEXTMP65PCA	ICM 60A
EUEXTMP65PCB	ICM 60B
EUEXTMP65PD	ICM 69D
EUEXTMP65PCE	ICM 69E
EUEXTMP65PCF	ICM 69F

2. The permittee shall not operate FGPCM unless a malfunction abatement plan (MAP) as described in Rule 911(2), for powder coating manufacturing, has been submitted within 90 days of permit issuance, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1224, R 336.1225, R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate any emission unit in FGPCM unless a gauge, which measures the pressure drop across their respective fabric filter collector and sounds an alarm when the pressure drop reading exceeds -50 mbars, is installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor the pressure drop of each baghouse in FGPCM on a continuous basis. Whenever an emission unit is operating, the permittee shall record the pressure drop of the associated baghouse at least once per day. If the pressure drop is outside the range established in the MAP, the permittee shall take corrective action as described in the MAP and document the corrective action taken. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**

2. 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. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-AAF[a]	24 x 16	16	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-ICM2.4[a]	3.6	5	R 336.1225, 40 CFR 52.21(c) & (d)
3. SV-ICM10A[a]	6	8	R 336.1225, 40 CFR 52.21(c) & (d)
4. SV-ICM10B[a]	6	8	R 336.1225, 40 CFR 52.21(c) & (d)
5. SV-ICM12C[a]	9	26.5	R 336.1225, 40 CFR 52.21(c) & (d)
6. SV-ICM12D[a]	9	26.5	R 336.1225, 40 CFR 52.21(c) & (d)
7. SV-40ACMC	10	13	R 336.1225, 40 CFR 52.21(c) & (d)
8. SV- ICM60A[a]	14	3	R 336.1225, 40 CFR 52.21(c) & (d)
9. SV- ICM60B[a]	14	3	R 336.1225, 40 CFR 52.21(c) & (d)
10. SV- ICM69D	14	22	R 336.1225, 40 CFR 52.21(c) & (d)
11. SV- ICM69E[a]	20 x 6	14	R 336.1225, 40 CFR 52.21(c) & (d)
12. SV- ICM69F[a]	20 x 6	14	R 336.1225, 40 CFR 52.21(c) & (d)
[a] This stack is not discharged unobstructed vertically to the ambient air.			

IX. OTHER REQUIREMENTS

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).