MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

July 28, 2011

PERMIT TO INSTALL
57-10A

ISSUED TO
Johnson Controls Interior Manufacturing, LLC

LOCATED AT
1600 South Washington
Holland, Michigan

IN THE COUNTY OF
Allegan

STATE REGISTRATION NUMBER
N2003

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: **June 24, 2011**	
DATE PERMIT TO INSTALL APPROVED: **July 28, 2011**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

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_2S	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	ng	Nanogram
MDEQ	Michigan Department of Environmental Quality (Department)	NO_x	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	PM less than 10 microns diameter
NSPS	New Source Performance Standards	PM2.5	PM less than 2.5 microns diameter
NSR	New Source Review	pph	Pound per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonably Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO_2	Sulfur Dioxide
SRN	State Registration Number	THC	Total Hydrocarbons
TAC	Toxic Air Contaminant	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	µg	Microgram
VE	Visible Emissions	VOC	Volatile Organic Compounds
		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 48909-7760, 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)	Flexible Group ID
EU-PARTSWIPE	A plastic automotive interior parts wiping process. Prior to being painted, the parts are hand wiped with a solvent to clean them. Emissions from this process are not directly vented to the outside atmosphere.	NA
EU-PLASTICPARTS	A plastic air dried automotive interior parts coating line consisting of three paint spray booths, flash-off zones, and a bake oven followed by a cooling tunnel. Each of the spray booths is equipped with dry filters to control particulate overspray. VOC emissions from all three paint booths, the flash-off zones, and the cure oven will be controlled with an enclosure system designed to achieve 100% VOC capture efficiency routed to a regenerative thermal oxidizer.	NA

The following conditions apply to: EU-PARTSWIPE

DESCRIPTION: A plastic automotive interior parts wiping process. Prior to being painted, the parts are hand wiped with a solvent to clean them. Emissions from this process are not directly vented to the outside atmosphere.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: NA None

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	5.9 tpy	12-month rolling time period as determined at the end of each calendar month	EU-PARTSWIPE	SC VI.3	R 336.1702(a)
2. Isopropyl Alcohol (CAS# 67-63-0)	112 pounds per calendar day[1]	calendar day	EU-PARTSWIPE	SC VI.4	R 336.1225

II. MATERIAL LIMITS

N/A

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall capture all waste solvents 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 336.1224, R 336.1225, R 336.1901, R 336.1702(a))**

2. The permittee shall handle all VOC containing materials, including solvents, 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 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

N/A

V. TESTING/SAMPLING

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

1. The permittee shall determine the VOC content, water content and density of any solvent, as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1225, R 336.1702, R 336.1901, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1224, R 336.1225, R 336.1702, R 336.1901)**

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each solvent, 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, R 336.1901)**

3. The permittee shall keep the following information on a monthly basis for EU-PARTSWIPE:
   a) Gallons of each solvent used and reclaimed.
   b) VOC content, in pounds per gallon, of each solvent used.
   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.
   e) Hours of operation.

   The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702, R 336.1901)**

4. The permittee shall keep the following information on a calendar day basis for EU-PARTSWIPE:
   a) Gallons of each solvent used and reclaimed.
   b) Isopropyl Alcohol (CAS# 67-63-0) content, in pounds per gallon, of each solvent used.
   c) Isopropyl Alcohol (CAS# 67-63-0) emission calculations determining the daily emission rate in pounds per calendar day.

   The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702, R 336.1901)**

VII. REPORTING

N/A

VIII. STACK/VENT RESTRICTIONS

1. The exhaust gases from EU-PARTSWIPE shall not be directly discharged to the ambient air at any time. **(R 336.1224, R 336.1225, R 336.1702, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

IX. OTHER REQUIREMENTS

N/A

The following conditions apply to: EU-PLASTICPARTS

DESCRIPTION: A plastic air dried automotive interior parts coating line consisting of three paint spray booths, flash-off zones, and a cure oven, followed by a cooling tunnel.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Each of the spray booths is equipped with dry filters to control particulate overspray. VOC emissions from all three paint booths, the flash-off zones, and the cure oven will be controlled with an enclosure system designed to achieve 100% VOC capture efficiency routed to a regenerative thermal oxidizer.

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I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	20.7 tpy	12-month rolling time period as determined at the end of each calendar month	EU-PLASTICPARTS	SC VI.3	R 336.1205(3), R 336.1702(a)
2. VOCs	8.6 pph	Test Protocol	EU-PLASTICPARTS	SC V.2	R 336.1702(a)

II. MATERIAL LIMITS

N/A

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall carry out all paint line purges and spray gun nozzle purges for EU-PLASTICPARTS by discharging purge solvents, without use of atomization air pressure, into a waste receptacle, for collection and disposal in accordance with state and federal regulations. Paint line and spray gun nozzle purges shall be performed within the EU-PLASTICPARTS spray booths during satisfactory operation of the thermal oxidizer control system in accordance with SC IV.3. **(R 336.1224, R 336.1225, R 336.1901, R 336.1702(a))**

2. The permittee shall capture all waste coatings, reducers, thinners, catalysts, additives, and solvents 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 336.1224, R 336.1225, R 336.1901, R 336.1702(a))**

3. The permittee shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air. **(R 336.1224, R 336.1370)**

4. The permittee shall handle all paint and paint related materials, including coatings, reducers, solvents and thinners, 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 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate any paint booth portion of EU-PLASTICPARTS unless all respective exhaust filters are installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910)**

2. The permittee shall equip and maintain each paint booth portion of EU-PLASTICPARTS with high volume low pressure (HVLP) spray guns or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **(R 336.1702(a))**
3. The permittee shall not operate EU-PLASTICPARTS unless the thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes maintaining a minimum combustion chamber temperature of 1500°F and a minimum retention time of 0.5 second. In lieu of a minimum temperature, the permittee may use an average temperature of 1500°F based upon a three-hour rolling average. **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

4. The permittee shall not operate any portion of EU-PLASTICPARTS unless the non-fugitive enclosure is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires that the non-fugitive enclosure is operating at a pressure lower than all adjacent areas, so that air flows into the non-fugitive enclosure through all natural draft openings (NDOs). NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the thermal oxidizer to monitor and record the temperature on a continuous basis, during operation of EU-PLASTICPARTS. **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

V. TESTING/SAMPLING

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

1. The permittee shall determine the VOC content, water content and density of any coating, reducer, thinner, catalyst, additive, and solvent, as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1205(3), R 336.1225, R 336.1702(a), R 336.1901, R 336.2001, R 336.2003, R 336.2004)**

2. Within 180 days after commencement of trial operation, the permittee shall verify the thermal oxidizer VOC destruction efficiency and hourly VOC emission rate for EU-PLASTICPARTS by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of VOC destruction efficiency and emission rate includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, reducer, thinner, catalyst, additive, and solvent, 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 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**

3. The permittee shall keep the following information on a monthly basis for EU-PLASTICPARTS:
   a) Gallons (with water) of each material used and reclaimed, if applicable. Materials used are, but not limited to: coatings, reducers, thinners, catalysts, additives, and purge solvents.
   b) VOC content (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 permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3), R 336.1702(a))**

4. Within 180 days after commencement of trial operation, the permittee shall conduct the initial performance test of the non-fugitive enclosure for EU-PLASTICPARTS. This test shall be repeated semi-annually thereafter. During each test the permittee shall verify that the direction of air flow at each natural draft opening (NDO) is into the non-fugitive enclosure, using a smoke test (i.e., smoke bomb, smoke tube) or an approved alternate method. The permittee shall notify the AQD District Supervisor in writing at least 15 days before the test is scheduled. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of air flow direction includes the submittal of a complete report of the test results to the AQD District Supervisor within 30 days following the date of the test. After two consecutive tests demonstrate that the direction of air flow at each NDO is into the non-fugitive enclosure, the permittee may submit a request for a change in the testing frequency to the AQD District Supervisor for review and approval. **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

5. The permittee shall monitor and record, in a satisfactory manner, the temperature in the combustion chamber of the thermal oxidizer, on a continuous basis, during operation of EU EU-PLASTICPARTS. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

6. The permittee shall keep, in a satisfactory manner, operating temperature records for the thermal oxidizer as required by SC VI.5. If the measured operating temperature of the thermal oxidizer falls below 1500 °F during operation of EU-PLASTICPARTS, the permittee may demonstrate compliance based upon a three-hour average temperature, by calculating the average operating temperature for each three hour period which includes one or more temperature readings below 1500 °F. The permittee shall keep all records and calculations on file at the facility and make them available to the Department upon request. **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910))**

VII. REPORTING

N/A

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stack 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. SVRTO	26	40	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

N/A

Footnotes:

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