MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

August 29, 2013

PERMIT TO INSTALL 93-13

ISSUED TO
Postle Aluminum

201 North Edwards Street Cassopolis, Michigan

IN THE COUNTY OF
Cass

STATE REGISTRATION NUMBER P0448

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 30, 2013				
DATE PERMIT TO INSTALL APPROVED: August 29, 2013	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		
CO ₂ e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit		
COM	Continuous Opacity Monitoring	gr	Grains		
EPA	Environmental Protection Agency	Hg	Mercury		
EU	Emission Unit	hr	Hour		
FG	Flexible Group	H ₂ S	Hydrogen Sulfide		
GACS	Gallon of Applied Coating Solids	hp	Horsepower		
GC	General Condition	lb	Pound		
GHGs	Greenhouse Gases	kW	Kilowatt		
HAP	Hazardous Air Pollutant	m	Meter		
HVLP	High Volume Low Pressure *	mg	Milligram		
ID	Identification	mm	Millimeter		
LAER	Lowest Achievable Emission Rate	MM	Million		
MACT	Maximum Achievable Control Technology	MW	Megawatts		
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram		
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen		
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter		
MSDS	Material Safety Data Sheet	PM10 PM with aerodynamic diameter ≤10 micror			
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns		
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	Reasonably Available Control Technology	scf	Standard cubic feet		
ROP	Renewable Operating Permit	sec	Seconds		
SC	Special Condition	SO ₂	Sulfur Dioxide		
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons		
SRN	State Registration Number	tpy	Tons per year		
TAC	Toxic Air Contaminant	μg	Microgram		
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound		
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 48909-7760, 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
EUCOATINGLINE	Surface coating line for extruded aluminum parts and components. The conveyorized line includes a four stage parts washer, a drying oven, a mixing area, and two (2) circular paint booths which utilize electrostatic high speed turbo disk rotary atomizing applicators and a natural gas curing oven. The emissions from the paint room and curing oven are controlled by a regenerative thermal oxidizer (RTO).	8-29-2013	FGFACILITY

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.

The following conditions apply to: EUCOATINGLINE

<u>DESCRIPTION</u>: Surface coating line for extruded aluminum parts and components. The conveyorized line includes a four stage parts washer, a drying oven, a mixing area, and two (2) circular paint booths which utilize electrostatic high speed turbo disk rotary atomizing applicators and a natural gas curing oven.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: Dry filters to control particulate. Regenerative Thermal Oxidizer (RTO) to control emissions from the paint room and curing oven.

I. EMISSION LIMITS

	Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1.	VOCs	89.9 tpy	12-month rolling time period as determined at the end of each calendar month	EUCOATINGLINE	SC VI.3, SC VI.4	R 336.1702(a)
2.	Xylene (CAS No. 1330-20-7)	166.2 lb/day	Calendar Day	EUCOATINGLINE	SC VI.3, SC VI.5	R 336.1225(1)
3.	Solvent Naptha Heavy Aromatic (CAS No. 64742-94-5)	116.3 lb/day	Calendar Day	EUCOATINGLINE	SC VI.3, SC VI.5	R 336.1225(1)
4.	2-(2- Butoxyethoxy) ethanol (CAS No. 112-34-5)	33.2 lb/day	Calendar Day	EUCOATINGLINE	SC VI.3, SC VI.5	R 336.1225(1)
5.	Ethylbenzene (CAS No. 100-41-4)	9098.1 lb/year	12-month rolling time period as determined at the end of each calendar month	EUCOATINGLINE	SC VI.3, SC VI.6	R 336.1225(1)
6.	Napthalene (CAS No. 91-20-3)	5.0 lb/day	Calendar Day	EUCOATINGLINE	SC VI.3, SC VI.5	R 336.1225(1)
7.	Napthalene (CAS No. 91-20-3)	242.7 lb/year	12-month rolling time period as determined at the end of each calendar month	EUCOATINGLINE	SC VI.3, SC VI.6	R 336.1225(1)

II. MATERIAL LIMITS

N/A

III. PROCESS/OPERATIONAL RESTRICTIONS

- 1. The permittee shall capture all waste coatings, purge and clean-up solvents and shall store them in closed containers. The permittee shall dispose of all waste coatings, purge and clean-up solvents in an acceptable manner in compliance with all applicable state rules and federal regulations. (R 336.1224, R 336.1702(a))
- 2. 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)

- 3. The permittee shall handle all VOC and / or HAP containing 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 336.1225, R 336.1702(a))
- 4. The permittee shall not operate the regenerative thermal oxidizer (RTO) for EUCOATINGLINE unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 90 days of permit issuance, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

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 336.1205, R 336.1225, R 336.1910, R 336.1911)

IV. DESIGN/EQUIPMENT PARAMETERS

- 1. The permittee shall not operate EUCOATINGLINE unless all respective exhaust filters are installed and operating in a satisfactory manner. (R 336.1224, R 336.1301, R 336.1910)
- 2. The permittee shall equip and maintain EUCOATINGLINE with electrostatic high speed turbo disk rotary atomizing applicators or comparable technology with equivalent transfer efficiency. (R 336.1702(a))
- 3. The permittee shall not operate EUCOATINGLINE unless the RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes a minimum VOC capture efficiency of 90 percent (by weight), a minimum VOC destruction efficiency of 95 percent (by weight), and maintaining a minimum temperature of 1450°F and a minimum retention time of 0.5 seconds. (R 336.1205, R 336.1225, R 336.1702, R 336.1910)
- 4. 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 EUCOATINGLINE. (R 336.1205, R 336.1225, R 336.1702)

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, purge or clean-up solvent as applied and as received, using federal Reference Test Method 24. Upon prior 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 336.2001, R 336.2003, R 336.2004, R 336.2040(5))
- 2. Within 180 days of issuance of this permit, the permittee shall verify, by testing at the owner's expense and in accordance with Department requirements, the control efficiency (capture and destruction efficiencies) of the RTO. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. Verification of the control efficiency includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.1225, R 336.1702, 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, R 336.1225, R 336.1702)
- 2. The permittee shall monitor, in a satisfactory manner, the temperature in the combustion chamber of the RTO on a continuous basis, during operation of EUCOATINGLINE. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. (R 336.1205, R 336.1225, R 336.1702)
- 3. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, purge and clean-up 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 336.1225, R 336.1702)
- 4. The permittee shall keep the following information on a monthly basis for the EUCOATINGLINE:
 - a) Gallons (with water) of each coating, purge and clean-up solvent used and reclaimed.
 - b) VOC content, in pounds per gallon, of each coating, purge and clean-up solvent 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, R 336.1702)

- 5. The permittee shall keep the following information on a daily basis for the EUCOATINGLINE:
 - a) Gallons (with water) of each Xylene (CAS No. 1330-20-7), Solvent Naptha Heavy Aromatic (CAS No. 64742-94-5), 2-(2-Butoxyethoxy)ethanol (CAS No. 112-34-5), and Naphthalene (CAS No. 91-20-3) containing material used.
 - b) Where applicable, the gallons (with water) of each Xylene (CAS No. 1330-20-7), Solvent Naptha Heavy Aromatic (CAS No. 64742-94-5), 2-(2-Butoxyethoxy)ethanol (CAS No. 112-34-5), and Naphthalene (CAS No. 91-20-3) containing material reclaimed.
 - c) The Xylene (CAS No. 1330-20-7), Solvent Naptha Heavy Aromatic (CAS No. 64742-94-5), 2-(2-Butoxyethoxy)ethanol (CAS No. 112-34-5), and Naphthalene (CAS No. 91-20-3) content (with water) in pounds per gallon of each material used.

d) Xylene (CAS No. 1330-20-7), Solvent Naptha Heavy Aromatic (CAS No. 64742-94-5), 2-(2-Butoxyethoxy)ethanol (CAS No. 112-34-5), and Naphthalene (CAS No. 91-20-3) mass 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(1))

- 6. The permittee shall keep the following information on a monthly basis for the EUCOATINGLINE:
 - a) Gallons (with water) of each Ethylbenzene (CAS No. 100-41-4) and Naphthalene (CAS No. 91-20-3) containing material used.
 - b) Where applicable, the gallons (with water) of each Ethylbenzene (CAS No. 100-41-4) and Naphthalene (CAS No. 91-20-3) containing material reclaimed.
 - c) The Ethylbenzene (CAS No. 100-41-4) and Naphthalene (CAS No. 91-20-3) content (with water) in pounds per gallon of each material used.
 - d) Ethylbenzene (CAS No. 100-41-4) and Naphthalene (CAS No. 91-20-3) mass emission calculations determining the monthly emission rate in pounds per calendar month.
 - e) Ethylbenzene (CAS No. 100-41-4) and Naphthalene (CAS No. 91-20-3) mass emission calculations determining the annual emission rate in pounds 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 336.1225(1))

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUSANDER. (R 336.1201(7)(a))

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	Stack & Vent ID Maximum Exhaust Diameter/ Dimensions (inches)		Underlying Applicable Requirements	
1.	SVRTO	50	40	R 336.1225, 40 CFR 52.21(c) & (d)	

IX. OTHER REQUIREMENTS

N/A

Footnotes:

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

The following conditions apply Source-Wide to: FGFACILITY

<u>DESCRIPTION</u>: All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.

Emission Unit ID: N/A

POLLUTION CONTROL EQUIPMENT: N/A

I. EMISSION LIMITS

Pollutant		Limit	Time Period/ Operating Scenario	Equipment	Testing/ Monitoring Method	Underlying Applicable Requirements
1.	Each Individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, SC VI.2	R 336.1205(3)
2.	Aggregate HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, SC VI.2	R 336.1205(3)
3.	VOCs	Less than 90.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, SC VI.3	R 336.1205(3)

II. MATERIAL LIMITS

N/A

III. PROCESS/OPERATIONAL RESTRICTIONS

N/A

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 HAP content of any coating, purge and clean-up solvent (material) as applied and as received, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. (R 336.1205(3))

VI. MONITORING/RECORDKEEPING

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

- 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))
- 2. The permittee shall keep the following information on a calendar month basis for FGFACILITY:
 - a) Gallons or pounds of each HAP containing material used.
 - b) Where applicable, gallons or pounds of each HAP containing material reclaimed.
 - c) HAP content, in pounds per gallon or pounds per pound, of each HAP containing 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 cumulative emission rate of each during the first 12-months and the annual emission rate of each thereafter, 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))

- 3. The permittee shall keep the following information on a calendar month basis for FGFACILITY:
 - a) Gallons or pounds of each VOC containing material used.
 - b) Where applicable, gallons or pounds of each VOC containing material reclaimed.
 - c) VOC content, in pounds per gallon or pounds per pound, of each VOC containing material used.
 - d) VOC emission calculations determining the monthly emission rate in tons per calendar month.
 - e) VOC 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 and make them available to the Department upon request. (R 336.1205(3))

VII. REPORTING

N/A

VIII. STACK/VENT RESTRICTIONS

N/A

IX. OTHER REQUIREMENTS

N/A