FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHWEST DISTRICT OFFICE
13051 NORTH TELECOM PARKWAY
TEMPLE TERRACE, FLORIDA 33637-0926

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JONATHAN P.STEVERSON
SECRETARY

FINAL PERMIT

PERMITTEE

GE Energy Management-Instrument Transformers, Inc. (ITI)
1907 Calumet Street
Clearwater, FL 33765

Authorized Representative:
Mr. Jim Koepsell, Plant Manager

Air Permit No. 1030528-007-AC
Permit Expires: January 1, 2016
Site Name: Instrument Transformers, Inc.
Minor Air Construction Permit
Addition of Capacitor Manufacturing and additional current and potential transformer manufacturing activities /Plant Expansion

This is the final air construction permit for the construction of an additional 187,866-square-foot manufacturing building(1925 Calumet) to house additional potential transformer, current transformer and capacitor manufacturing activities; the construction of additional infrastructure, and transfer and installation of additional regulated air pollutant-emitting equipment associated with the manufacture of transformers and capacitors at the Calumet site; minor configuration changes to the existing Calumet facility building layouts and infrastructure to accommodate the consolidation of transformer and capacitor fabrication activities to a single nearby off-site location; and to incorporate changes that were approved under Air Construction Permit No. 1030528-005-AC for the addition of a Power Transformer (Superbute™) manufacturing process to the existing Clearwater Facility and to update the description of EU No. 001 to accurately reflect current operations. The proposed work will be conducted at the electrical transformer manufacturing facility (Standard Industrial Classification No. 3612). The facility is located in Pinellas County at 1907 Calumet Street in Clearwater, Florida. The UTM coordinates are Zone 17, 327.2952 km East, and 3096.7521 km North. As noted in the Final Determination provided with this final permit, no changes or only minor changes and clarifications were made to the draft permit.

This final permit is organized by the following sections:

Section 1. General Information

Section 2. Administrative Requirements and Facility-wide Specific Conditions

Section 3. Emissions Unit Specific Conditions

Section 4. Appendices

Due to the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

This air pollution permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the

notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Hillsborough County, Florida

_____ _____

Kelley M. Boatwright Effective Date
Permitting & Waste Cleanup Program Administrator
Southwest District

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination, the Final Permit and the Appendices) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on the date indicated below to the persons listed below.

Mr. Jeff Mu, EHS Manager, Instrument Transformers Inc., Jeff.Mu@ge.com

Mr. Jim Koepsell, Instrument Transformers, Inc., Jim.Koepsell@ge.com

Mr. Everett Sorensen, P.E., Streamline Environmental, Inc, everett@streamlineenv.com

Mr. Sherrill Culliver, Environmental Program Coordinator - Pinellas County Air Quality Division, sculliver@co.pinellas.fl.us

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

_____ _____

(Clerk) (Date)

FACILITY AND PROJECT DESCRIPTION

Existing Facility

The facility manufactures dry type current transformers, voltage transformers, control power transformers, and miscellaneous variety of instrument and control switches for commercial distribution.

General Overview of Manufacturing Process

The raw materials for the manufacture of electric transformers consist of various grades of steel in several physical forms, including plate, sheet, and rolled-strip metal stock. The materials are delivered to the facility by truck. The steel is then stored in the stock room for pending use. The metal stock is subsequently cut, formed, punched, shaped, and welded into the various components utilized for transformer core production. The metal fabrication operations are primarily mechanical in nature. Once transformer cores have been fabricated they are annealed (heat-treated) in specially designed electric furnaces (ovens). The annealing chamber is blanketed with nitrogen gas to provide the requisite low-oxygen atmosphere for the heat-treating process. The annealing furnaces and cooling chamber are exhausted directly to the atmosphere via separate vents. Only heated nitrogen gas is exhausted from the cooling chamber. Upon exiting the furnace, the transformer cores are subsequently transferred to the assembly lines, where they are later combined with transformer coils that have undergone fabrication elsewhere in the facility.

A separate section of the facility is devoted to the manufacture of transformer coils. Metal strip stock, insulating paper, and copper wire are the primary raw materials. Alternating layers of aluminum strip and paper are assembled on special machines and the units are then wrapped with copper wire. After fabrication, the transformer coils may be cured in electric ovens. The metal coils are then conveyed to the production lines, where they are combined with transformer cores. Small quantities of adhesives, solvents, and cleaning agents are utilized. Prior to transformer assembly, residual moisture must be removed from the coil/core assemblies. This is performed through the use of electric drying ovens.

The facility also operates thermoset injection molding operation where a variety of plastic transformer cases are made onsite. The activity occurs in the Molding Department. Emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAPs) result from both the closed molding process itself, as well as from indirect emissions from the use of spray mold release compounds. Some of the molding compounds used contain styrene (a HAP). The plastic components made in the injection molding operation are used in the assembly of transformer components downstream.

The facility operates a robotic varnish surface coating system, a Black W/R (Egyptian Coating) operation and several smaller varnish application workstations used for the varnish coating of fabricated Control Power Transformers (CPT) and other affiliated products. After varnish coating transformers are either air dried or cured in an electric oven.

There are several different electronic assembly areas at the facility, organized by product line type. As part of the product assembly process, there is facility-wide usage of spray cleaners, adhesives, and epoxies. In addition, one of the assembly areas operates a wave solder machine. The assembly areas for the voltage transformer manufacturing also include the operation of urethane resin application/encapsulation stations that are used to encapsulate fabricated voltage transformers at various locations throughout the facility. Special resin mixing areas are also operated where resin recipes are mixed from bulk storage according to specific customer recipes. (Note – The encapsulation process is an insignificant emissions activity as the chemical reactants are generally bound in the matrix of the encapsulation process.)

The completed assemblies are then electrically tested. After testing, the transformers are packed for shipping.

The existing facility consists of the following emissions units (EUs).

Facility ID No. 1030528	
EU ID No.	**Emission Unit Description**
001	Transformer Cleaning and Surface Coating Systems (VOC-RACT)
002	Miscellaneous Non-VOC RACT Activities

Project Description and Affected/Proposed Emission Units

This project is for the construction of an additional 187,866-square-foot manufacturing building(1925 Calumet) to house additional potential transformer, current transformer and capacitor manufacturing activities; the construction of additional infrastructure, and transfer and installation of additional regulated air pollutant-emitting equipment associated with the manufacture of transformers and capacitors at the Calumet site; minor configuration changes to the existing Calumet facility building layouts and infrastructure to accommodate the consolidation of transformer and capacitor fabrication activities to a single nearby off-site location; and to incorporate changes that were approved under Air Construction Permit No. 1030528-005-AC for the addition of a Power Transformer (Superbute™) manufacturing process to the existing Clearwater Facility and to update the description of EU No. 001 to accurately reflect current operations.

In the Superbute™ manufacturing process, the head shell and bushing casings are cast from butyl rubber in a batch casting process. The windings and casings are joined and the primary assembly is encapsulated in an epoxy media in a vacuum chamber. The encapsulated unit is trimmed and ground to tolerance in a manual grinding operation. The secondary coil assembly is integrated with the primary casting and the base pan assembly is then filled with polyurethane filler and cured in ambient air. The project is comprised of the following major elements:

1) construction and operation of a vapor degreasing operation;
2) construction and operation of a butyl rubber casting operation;
3) construction and operation of a primary assembly vacuum chamber epoxy encapsulation operation;
4) construction and operation of two touch-up paint booths;
5) construction and operation of an externally-discharged grinding booth and dust collection system;
6) installation of Superbute manufacturing operations (including rubber casting and testing) within the existing ITI building(s).

All of the above emission sources/activities are exempt from permitting except Item 1 (vapor degreasing) and Item 4 (two touch-up paint booths), in accordance with the provisions of Rule 62-4.040(1)(b), F.A.C. (insignificant impact) for Items 6, or Rule 62-62-210.300(3)(b)1., F.A.C. (Generic Emission Source Exemption) for Items 2, 3 and 5 (based on potential emissions prior to the baghouse emission control device).

<u>Permitting Note</u>: Deviations in locations of emissions points described in this permit within the facility not affecting actual or potential emissions or production rates are allowed. All such deviations are to be duly noted when the facility applies for an operation permit incorporating these units.

This project will modify/create the following emissions units (EUs).

EU ID No.	Emissions Unit Description
001	Transformer Cleaning and Surface Coating Systems (VOC-RACT)
002	Miscellaneous Non-VOC RACT Activities
003	All Non-VOC RACT Transformer/Capacitor Manufacturing Activities
004	PT Transformer Paint Booth
005	Superbute Touch-up Booth
006	Conveyorized Capacitor Paint Line

NOTE: *Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.*

Existing Exempt Emission Sources/Activities

The emissions from the following emission sources at this facility are deemed insignificant and exempt from permitting *(basis for insignificant/exempt status shown in [brackets])*:

- Wave Solder Machine [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];
- Automatic Pressure Gelatin Casing Operations [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];
- Thermoplastic Molding Machines [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];
- Plant-wide resin storage, mixing, casting and encapsulation operations [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];
- Chemical Storage and Hazardous Waste Management activities [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];

  Five (5) di-electric oil storage tanks operations (Capacitor Manufacturing) [Rule 62-4.040(1)(b), F.A.C.];
- Two (2) above-ground 500-gallon Convault diesel fuel storage tanks [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];
- Facility-wide forklift operation and maintenance activities [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];
- Facility maintenance activities [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];
- Landscaping, grounds, and architectural maintenance activities [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];
- Kitchen, lavatory, and storage area exhaust fans [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];
- New butyl rubber storage facility and test facility (~3,200 ft^2) to be located [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];
- Quality Assurance/Quality Control laboratory operations [Rules 62-210.300(3)(a)6. and 12., F.A.C., Categorical and conditional Exemptions];

- Facility brazing, soldering, and welding activities [Rule 62-210.300(3)(a)13., F.A.C., Categorical and Conditional Exemptions];
- Construction and operation of two touch-up paint booths [Rule 62-210.300(3)(a)27., F.A.C., Categorical and Conditional Exemptions];
- Two (2) 500 HP Cummins diesel fired emergency generators* [Rule 62-210.300(3)(a)35., F.A.C., Categorical and Conditional Exemptions];
- Two (2) 1,200 HP Waukesha diesel fired emergency generators***** [Rule 62-210.300(3)(a)35., F.A.C., Categorical and Conditional Exemptions**];**
- Fabrication activities [Rule 62-4.040(1)(b),F.A.C., Insignificant];
- 720 kW Diesel-fired Emergency Generator and Diesel Fuel storage tank* [Rule 62-4.040(1)(b), F.A.C., Exemptions]

RCRA-regulated solid waste management activities, [Rule 62-4.040(1)(b), F.A.C.], and;

Note: A complete representation of all sources/activities deemed exempt from permitting are also graphically illustrated in Appendix E. Site Plot Plan and Process Flow Diagrams, Figures 3 through 6 from the permittee's Air Construction Permit Application dated and received October, 10, 2014.

*Existing CI RICE – The above four (4) existing stationary compression ignition (CI) diesel engines that drive emergency generators installed prior to May 24, 2004, are subject to all limitations and requirements of Title 40, Code of Federal Regulations, Part 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAPs).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is not a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- This facility is a synthetic non-Title V source for hazardous air pollutants (HAPS). The emission limitations, restriction on hours of operation, restriction on the type or amount of material combusted, stored or processed in this permit will ensure that the facility's HAP emissions will be below the threshold for a Title V source.

PERMIT HISTORY/AFFECTED PERMITS

This permit incorporates 1030528-005-AC and modifies Permit Nos. 1030528-001-ac and 1030528-003-AC, as amended by Operation Permit No. 1030528-004-AF.

SECTION 2. ADMINISTRATIVE REQUIREMENTS AND FACILITY-WIDE SPECIFIC CONDITIONS

ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority - The permitting authority for this project is the Florida Department of Environmental Protection (Department), Southwest District Office's Air Permitting Program. The mailing address and phone number is:

Florida Department of Environmental Protection
Southwest District Office
Air Permitting Program
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: 813-470-5700

All documents related to applications for permits shall be submitted to the above address.

2. Compliance Authority - All documents related to compliance activities such as reports, tests, and notifications shall be submitted to Pinellas County Air Quality Division. The mailing address and phone number of the Local Air Program is:

Pinellas County Air Quality Division
509 East Avenue South, Suite 138
Clearwater, Florida 33756
Telephone: 727-464-4422

3. Appendices - The following Appendices are attached as part of this permit:

a. Appendix A. Citation Formats and Glossary of Common Terms;

b. Appendix B. General Conditions;

c. Appendix C. Common Conditions;

d. Appendix D. Common Testing Requirements; and

e. Appendix E. Site Plot Plan and Process Flow Diagrams.

4. Applicable Regulations, Forms and Application Procedures - Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions - For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.
[Rule 62-4.080, F.A.C.]

6. Modifications - Unless otherwise exempt by rule, the permittee shall not initiate any construction, reconstruction, or modification at the facility and shall not install/modify any pollution control device at the facility without obtaining prior authorization from the Department. Modification is defined as: Any physical change or changes in the method of operations or addition to a facility that would result in an increase in the actual emissions of any air pollutant subject to air regulations, including any not previously emitted, from any emission unit or facility.
[Rules 62-210.200 - Definition of "Modification" and 62-210.300(1)(a), F.A.C.]

7. Annual Operating Report - On or before **April 1** of each year, the permittee shall submit a completed DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility" (AOR) for the preceding calendar year. The report may be submitted electronically in accordance with the instructions received with the AOR package sent by the Department, or a hardcopy may be sent to the Compliance Authority.
[Rule 62-210.370(3), F.A.C.]

8. Application for Non-Title V Air Operation Permit - This permit authorizes construction or modification of the permitted emissions unit(s) and initial operation to determine compliance with Department rules. A Non-Title V air operation permit is required for continued operation of the permitted emissions units. The permittee shall apply for a Non-Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation or commencing operation as modified. Commencing operation means setting into operation of any emissions unit for any purpose. To apply for a Non-Title V air operation permit, the applicant shall submit the following:

a. the appropriate permit application form *(see current version of Rule 62-210.900, F.A.C. (Forms and Instructions), and/or FDEP Division of Air Resource Management website at: http://www.dep.state.fl.us/air/)*;

b. the appropriate operation permit application fee from Rule 62-4.050(4)(a), F.A.C.; (applies to non-Title V facilities and construction permits at a Title V facility that does not have an effective Title V permit)

c. copies of the most recent month of records/logs specified in Specific Condition Nos. A.4, A.5, B.3. and B.4.

The application shall be submitted to the Permitting Authority with a copy to Pinellas County Air Quality Division (Compliance Authority).
[Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

FACILITY-WIDE SPECIFIC CONDITIONS

9. General Pollutant Emission Limiting Standards: Objectionable Odor Prohibited - The permittee shall not cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "Objectionable Odor" is defined as any odor present in the outdoor atmosphere, which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.
[Rules 62-210.200 and 62-296.320(2), F.A.C.; Pinellas County Code, Section 58-178; Construction Permit 1030528-001-AC]

10. General Pollutant Emission Limiting Standards: Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions - The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. The permittee shall comply with the following:

a. All equipment, pipes, hoses, lids, fittings, etc., shall be operated and maintained in such a manner as to minimize leaks, fugitive emission, and spills of paints and solvent materials that contain VOC's and/or OS's.

b. All solvents from solvent washings that contain VOC's and/or OS's shall be directed into containers that prevent evaporation into the atmosphere.

[Rule 62-296.320(1), F.A.C.; Construction Permit 1030528-001-AC]

PERFORMANCE RESTRICTIONS

11. Hours of Operation - This facility is allowed to operate a maximum of 8,760 hours/year.
[Rule 62-210.200(PTE), F.A.C.; Construction Permit No. 1030528-001-AC]

EMISSION STANDARDS

12. Volatile Organic Compound (VOC) and Total Hazardous Air Pollutants (THAP) Emission Limitations – VOC and THAP emissions from all activities, including exempt emissions activities shall not exceed the following:

a. 50 tons of VOC per any consecutive 12-month period;

b. 20 tons of THAP per any consecutive 12-month period.

[Rule 62-210.200 (PTE), F.A.C.]

RECORDKEEPING REQUIREMENTS

13. General Recordkeeping Requirements - In order to document compliance with Facility-wide Specific Condition No. 12. supporting documentation (MSDS sheets, "As Supplied" sheets, purchase orders, purchase records, inventory records, production records, etc.), which includes sufficient information to determine emissions shall be kept. The monthly records shall be completed by the 15th day of the following month. These records shall be recorded in a permanent form suitable for inspection by the Department and Pinellas County Air Quality Division upon request and shall be maintained at the facility for the most recent three (3) year period.
[Rules 62-4.070(3) and 62-4.160, F.A.C.; Pinellas County Code, Section 58-90; Construction Permit No. 1030528-001-AC]

A. EU No. 001 Transformer Cleaning and Surface Coating Systems (VOC-RACT), EU 004 PT Transformer Paint Booth, EU 005 Superbute Touch-up Booth, & EU 006 Conveyorized Capacitor Paint Line

This section of the permit addresses the following emissions units (EUs).

EU ID No.	Emission Unit Description
001	Transformer Cleaning and Surface Coating Systems (VOC-RACT) This emission unit is located at 1907 Calumet and consists of a vapor de-greaser and various varnish coating processes including a robotic varnish surface coating system (located in the CPT production area; a Black W/R (Egyptian Coating) operation, and several smaller varnish application workstations. The vapor de-greaser is subject to the VOC Reasonable Available Control Technology (RACT) requirements of Rule 62-296.511, F.A.C. – Solvent Metal Cleaning. All of the product varnish applications subject to the VOC RACT requirements of Rule 62-296.513, F.A.C. – Surface Coating of Miscellaneous Metal Parts and Products. The varnish coating processes, which use primarily AC-43 varnish, are located in various locations of the facility, as dictated by manufacturing program requirements. The purpose of the varnish coating process is to provide a protective coating to finish transformers and windings. Finished transformers of various sizes are manually dipped, hand-brushed drizzled with varnish, or robotically-sprayed. Transformers may either be air-dried or cured in an electric oven after varnish dipping. Secondary touch-up operations can occur at operator workstations throughout the facility. A smaller, one-gallon dip can is also used to clear-coat transformers in the Electronics shop. The Black W/R (Egyptian Coating) operation is a part dipping process conducted on transformer components. In the process, parts are dipped into a bath of water based polymer (Egyptian Coating) solution. After approximately 5 to 50 seconds, the dipped parts are removed and typically air dried for further processing. The purpose of the process is to provide a protective coating to the dipped parts, as well as impart rust protection and insulation properties. Superbute™ transformer manufacturing - Each Superbute™ transformer may receive touch-up painting of the metal bushings prior to packing and shipping. This process is subject to the VOC Reasonable Available Control Technology (RACT) requirements of Rule 62-296.513, F.A.C. – Surface Coating of Miscellaneous Metal Parts and Products. All of the coatings utilized in the above operations are reported by the vendor MSDS to be at or below 4.3 pounds VOC (less water) per gallon.
004	PT Transformer Paint Booth This emission unit (EU 004) will consist of a spray paint booth used to support transformer manufacturing operations in the new building (1925 Calumet St. building).

005	Superbute Touch-up Booth At 1907 Calumet, each Superbute™ transformer may receive touch-up painting of the metal bushings prior to packing and shipping. This process is subject to the VOC Reasonable Available Control Technology (RACT) requirements of Rule 62-296.513, F.A.C. – Surface Coating of Miscellaneous Metal Parts and Products. All of the coatings utilized in the above operations are reported by the vendor MSDS to be at or below 4.3 pounds VOC (less water) per gallon.
006	Conveyorized Capacitor Paint Line This emissions unit consists of capacitor manufacturing processes will occur at the 1925 Calumet facility. The first process is to cut, form, solder, weld, and braze aluminum and stainless steel to form capacitor cases and covers. The internal components of the capacitors consist of both liquid and solid materials, all of which are assembled on site. The liquid component, dielectric fluid, is purchased raw, refined in columns and then impregnated (treated) into the capacitors. The solid internal components consist of polypropylene film and aluminum foil, are wound together for insertion into capacitor cases. After the capacitors are assembled, treated, and electrically tested, they are put through coating operations where prime and top coat paints are applied and cured. The coating operations (pre-treatment prep washer, primer coat and top coat booth) will comprise the bulk of the regulated air emissions generated by the capacitor manufacturing process.

PERFORMANCE RESTRICTIONS

A.1. VOC RACT (Reasonably Available Control Technology) Surface Coating Operations Emission Limitations - No owner or operator of a coating line for miscellaneous metal parts and products shall cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds (VOCs) in excess of:

a. 4.3 pounds per gallon of coating, excluding water delivered to a coating applicator that applies clear coatings;

b. 3.5 pounds per gallon of coating, excluding water, delivered to a coating application system that is air dried or forced warm air dried at temperatures up to 194 degrees Fahrenheit;

c. 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; or,

d. 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coating application systems.

e. If more than one emission limitation in a., b., c., or d., above applies to a specific coating, then the least stringent emission limitation shall be applied.

f. All volatile organic compound emissions from solvent washings shall be considered in the emission limitations in a., b., c., and d. above, unless the solvent is directed into containers that prevent evaporation into the atmosphere.

[Rule 62-296.513(2) (Surface Coating of Miscellaneous Metal Parts and Products), F.A.C.; Construction Permit No. 1030528-001-AC]

A.2. VOC-RACT Solvent De-greaser Emission Limiting Standards - the owner or operator of an open top vapor degreaser shall comply with each of the following requirements:

a. Equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.

b. Provide the following safety switches:

1. A condenser flow switch and thermostat which shut off the heat if the condenser coolant is either not circulating or too warm; and,

2 A spray safety switch which shuts off the spray pump if the vapor level drops more than 4 inches (10 centimeters) below the bottom condenser coil; and,

3. A vapor level control thermostat which shuts off the heat when the vapor level rises too high.

c. Keep the cover closed at all times except when processing work loads through the degreaser.

d. Minimize solvent carryout by:

1. Racking parts to allow complete drainage; and,

2. Moving parts in and out of the degreaser at less than 11 feet per minute (3.3 meters per minute); and,

3. Holding the parts in the vapor zone at least 30 seconds or until condensation ceases; and,

4. Decanting any pools of solvent on the cleaned parts before removal from the vapor zone; and,

5. Allowing parts to dry within the degreaser for at least 15 seconds or until visually dry.

e. Not degrease porous or absorbent materials, such as cloth, leather, wood, or rope.

f. Not occupy more than half of the degreaser's open-top area with a workload.

g. Not load the degreaser to the point where the vapor level would drop more than 4 inches (10 centimeters) below the bottom condenser coil when the workload is removed from the vapor zone.

h. Always spray below the vapor level.

i. Repair solvent leaks immediately, or shut down the degreaser.

j. Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere.

k. Not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator.

l. Not use ventilation fans near the degreaser opening, nor provide exhaust ventilation exceeding 66 cubic feet per minute per square foot (20 cubic meters per minute per square meter) of degreaser open area, unless necessary to meet OSHA requirements.

m. Provide a permanent, conspicuous label, summarizing the operating procedure of paragraph 62-296.511(3)(d) through (l), F.A.C.

[Rule 62-296.511(3), F.A.C.]

A.3. Vapor De-greaser Limitations - No solvents subject to the requirements of 40 CFR 63, Subpart T, Halogenated Solvent Cleaning or Rule 62-296.511, F.A.C. – Solvent Metal Cleaning, can be used*. Specifically:

a. Methylene Chloride
b. 1,1,1 – Trichloroethane
c. Chloroform
d. Tetrachloroethylene
e. Trichloroethylene
f. Carbon Tetrachloride

* Blended cleaning solvents must contain a total regulated solvent content below 5% by weight to be exempt from the regulation.

[Rules 62-4.070(3), 62-210.300(3), 62-296.500(3)(a) and 62-296.511, F.A.C.]

RECORDKEEPING AND REPORTING REQUIREMENTS

A.4. VOC RACT Recordkeeping Requirements - In order to demonstrate compliance with Specific Condition No. A.1., the permittee shall comply with the daily recordkeeping requirements of Rule 62-296.500(2)(b), F.A.C. The records shall be maintained on file at the facility and include at least the following:

a. facility name, facility ID, and emission unit number (i.e., 1030528, EU 001 - Transformer Cleaning and Surface Coating Systems (VOC-RACT));

b. the date for each application of adhesive, coating, and/or solvent:

c. the rule number applicable to the operation for which the records are being maintained (i.e., Rule 62-296.513, F.A.C.);

d. the application method (e.g., spray application) and substrate type (e.g., metal);

e. the amount and type of adhesive, coatings (including catalyst and reducer for multi-component coatings), and solvent used at each point of application, including exempt compounds;

f. the VOC content (pounds per gallon excluding water) as applied in each adhesive coating, and solvent;

g. the amount of surface preparation, cleanup, wash-up of solvent (including exempt compounds) used and the VOC content of each; and

h. oven temperature (where applicable).

The daily logs shall be completed within three (3) business days. The facility shall also maintain documentation, such as all MSD sheets, purchase orders, etc., for all solvents used, which includes sufficient information to determine VOC emissions. All of the above records shall be kept at the facility for the most recent two-year period and made available to the Department and the Pinellas County Air Quality Division upon request.
[Rule 62-296.500(2)(b), F.A.C.]

A.5. VOC and THAP Emission Recordkeeping Requirements - In order to document compliance with Facility Wide Specific Condition No. 12., the permittee shall maintain monthly records for all VOC and/or HAP containing materials used in operations at this emissions unit. The records shall contain adequate information to demonstrate that emissions are below the applicable thresholds, including but not limited to the following:

a. Facility ID No. (1030528);

b. date (month/year);

c. the name/identification of each VOC and HAP containing material used;

d. the VOC and/or HAP content in each material used;

e. the amount of each material used for the month. (Note - At the permittee's option the assumption may be made that material purchases equal material usage, provided no materials are used that are not purchased.);

f. Calculate and record the monthly VOC emissions from each material (based on amount of material used and VOC content) along with the total emissions, in tons, from all the materials;

g. Calculate and record the monthly THAP emissions from each material (based on the total emissions of each individual HAP from the amount of materials used) along with the total emissions, in tons, from all the materials;

h. Calculate and record the most recent consecutive 12-month period total of VOC emissions, in tons; and

i. Calculate and record the most recent consecutive 12-month period total of THAP emissions, in tons.

[Rule 62-4.070(3), F.A.C.; Rule 62-210.200(PTE), F.A.C., Pinellas County Code, Section 58-90]

A. EU No. 002 Miscellaneous Non-VOC RACT Activities & EU 003 All Non-VOC RACT Transformer/Capacitor Manufacturing Activities

This section of the permit addresses the following emissions units (EUs).

EU ID No.	Emission Unit Description
002	Miscellaneous Non-VOC RACT Activities - This emission unit involves the collective use of VOC and HAP containing materials such as solvents, epoxies, adhesives, and cleaning agents within the various assembly areas and buildings; and a Safety-Kleen, Model 30, parts washer (or equivalent) that uses a Safety-Kleen 105 (or equivalent) solvent at 1907 Calumet.
003	All Non-VOC RACT Transformer/Capacitor Manufacturing Activities – This emission unit involves the collective use of VOC and HAP containing materials such as solvents, epoxies, adhesives, and cleaning agents within the various assembly areas, dielectric oil impregnation, aqueous degreasing, heat treating, and electrical testing, reworking rejected units, recycling of unusable fluids and metal parts, and electric testing operations at 1925 Calumet.

PERFORMANCE RESTRICTIONS

B.1. Parts Washer Limitations - The parts washer shall be limited as follows:

a. No solvents subject to the requirements of 40 CFR 63, Subpart T, Halogenated Solvent Cleaning or Rule 62-296.511, F.A.C. – Solvent Metal Cleaning, can be used. Specifically, the parts washer shall not use*:

1. Methylene Chloride
2, 1,1,1 – Trichloroethane
3. Chloroform
4. Tetrachloroethylene
5. Trichloroethylene
6. Carbon Tetrachloride

* Blended cleaning solvents must contain a total regulated solvent content below 5% by weight to be exempt from the regulation.

b. In order to avoid the VOC RACT requirements of Rule 62-296.511, F.A.C. – Solvent Metal Cleaning, the parts washer is limited to a maximum VOC emission rate of 200 pounds per any consecutive 12-month period.

[Rules 62-4.070(3), 62-296.500(3)(a) and 62-296.511, F.A.C.; Construction Permit 1030528-001-AC]

RECORDKEEPING REQUIREMENTS

B.2. Parts Washer Recordkeeping Requirements - In order to demonstrate compliance with Specific Condition No. B.1., the permittee shall keep the following records for the parts washer:

a. The name of each solvent used.

b. The VOC content of each solvent used, by weight (lbs./gal.).

c. The amount of each solvent used*, in gallons.

d. The amount of VOC emissions*, in pounds.

(* *Permitting Note - If during a month no solvent has been added to the parts washer, then record for that month zero pounds used and emitted.)*

e. The most recent consecutive 12-month period total amount of VOC emissions, in pounds.

The monthly logs shall be completed by the 15th day following each calendar quarter. Supporting documentation (MSDS sheets, purchase order, etc.) shall be kept for each material which includes sufficient information to determine VOC emissions. These records shall be recorded in a permanent form suitable for inspection by the Department and Pinellas County Air Quality Division upon request and maintained at the facility for the most recent three (3) year period.

[Rules 62-4.070(3) and 62-4.160, F.A.C.; Pinellas County Code, Section 58-90; Construction Permit 1030528-001-AC]

B.3. VOC and THAP Emission Recordkeeping Requirements - In order to document compliance with Facility Wide Specific Condition No. 12., the permittee shall maintain monthly records for all VOC and/or HAP containing materials used in operations at this emissions unit. The records shall contain adequate information to demonstrate that emissions are below the applicable thresholds, including but not limited to the following:

a. Facility ID No. (1030528);

b. date (month/year);

c. the name/identification of each VOC and HAP containing material used;

d. the VOC and/or HAP content in each material used;

e. the amount of each material used for the month. (Note - At the permittee's option the assumption may be made that material purchases equal material usage, provided no materials are used that are not purchased.);

f. Calculate and record the monthly VOC emissions from each material (based on amount of material used and VOC content) along with the total emissions, in tons, from all the materials;

g. Calculate and record the monthly THAP emissions from each material (based on the total emissions of each individual HAP from the amount of materials used) along with the total emissions, in tons, from all the materials;

h. Calculate and record the most recent consecutive 12-month period total of VOC emissions, in tons; and

i. Calculate and record the most recent consecutive 12-month period total of THAP emissions, in tons.

[Rule 62-4.070(3), F.A.C.; Rule 62-210.200(PTE), F.A.C., Pinellas County Code, Section 58-90]