



Florida Department of Environmental Protection

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

PERMITTEE

Instrument Transformers, LLC
1907 Calumet Street
Clearwater, FL 33765

Authorized Representative:
Phil Gonzalez, Plant Manager

Air Permit No. 1030528-010-AO
Air Operation Permit

Instrument Transformers, LLC
Pinellas County, Florida

PROJECT

This is the final air operation permit, which authorizes the operation of Instrument Transformers, LLC, which is a Power, Distribution Transformers facility (Standard Industrial Classification No. 3612). This project renews and revises Permit No. 1030528-002-AO as previously amended by FESOPs 1030528-003-AF and 1030528-004-AF with the terms and conditions of Air Construction Permit No. 1030528-007-AC. The facility is located in Pinellas County at 1907 Calumet Street in Clearwater, Florida. The UTM coordinates are Zone 17, 327.3 km East, and 3096.8 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements and Facility-wide Specific Conditions); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of 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.

Permitting Authority: Applications for air operation permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4 and 62-210 of the Florida Administrative Code (F.A.C.). The Permitting Authority responsible for making a permit determination for this project is the District Office. The Permitting Authority's physical address is: 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926. The Permitting Authority's mailing address is: 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926. The Permitting Authority's telephone number is 813-470-5700.

Petitions. A person whose substantial interests are affected by the proposed decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, MS #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, Agency_Clerk@dep.state.fl.us. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this notice. Petitions filed by any other person must be filed within 14 days of receipt of this proposed action. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency

FINAL AIR OPERATION PERMIT

determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

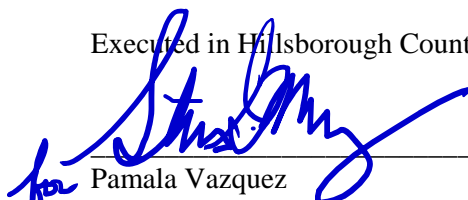
Mediation: Mediation is not available in this proceeding.

Effective Date: This permitting decision is final and effective on the date filed with the clerk of the Permitting Authority unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this action will not be effective until further order of the Permitting Authority.

Judicial Review: Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68, F.S., 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.

1030528-010-AO Effective Date: March 22, 2016
Renewal Application Due Date: January 21, 2021
Expiration Date: March 22, 2021

Executed in Hillsborough County, Florida.



Pamala Vazquez
Program Administrator
Permitting & Waste Cleanup Program
Southwest District

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air Permit package 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 following persons.

Philip Gonzalez, Instrument Transformers, LLC (philip.gonzalez@ge.com)
Susanna R Alvarado, Instrument Transformers, LLC (Susana.alvaradotrioche@ge.com)
Everett Sorensen, PE, Streamline Environmental, Inc. (everett@streamlineenv.com)
Sherrill Culliver, Pinellas County Air Quality Division (sculliver@co.pinellas.fl.us)
Dean Barcenas, PE, 3Leaf Solutions, LLC, (dbarcenas@3leafsolutions.com)

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)

March 22, 2016
(Date)

SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

The facility consists of two proximal buildings and 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.

Each building has 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.)

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.

SECTION 1. GENERAL INFORMATION

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

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

EU No.	Emission 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

APPLICABLE REGULATIONS

A summary of applicable regulations is shown in the following table.

Regulation	EU Nos.
<i>State Rule Citations</i>	
Rule 62-210.300, F.A.C., Permits Required	All
Rule 62-296.320, F.A.C., General Pollutant Emission Limitation Standards	All
Rule 62-296.511, F.A.C., Solvent Metal Cleaning	All
Rule 62-296.513, F.A.C., Surface Coating of Miscellaneous Metal Parts and Products	All

EXEMPT EMISSION SOURCES/ACTIVITIES

- 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)];

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- New butyl rubber storage facility and test facility (~3,200 ft²) to be located [Rule 62-210.300(3)(b)1., F.A.C., (Generic Emission Unit or Activity Exemption)];
- Butyl rubber casting operation [Rule 62-210.300(3)(b)1., F.A.C. (Generic Emission Source 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];
- Two touch-up paint booths [Rule 62-210.300(3)(a)27., F.A.C., Categorical and Conditional Exemptions];
- Primary assembly vacuum chamber epoxy encapsulation operation [Rule 62-210.300(3)(b)1., F.A.C. (Generic Emission Source Exemption)]
- Externally-discharged grinding booth and dust collection system [Rule 62-210.300(3)(b)1., F.A.C. (Generic Emission Source Exemption)]
- 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 62-210.300(3)(a)35., F.A.C., Categorical and Conditional Exemptions];
- RCRA-regulated solid waste management activities, [Rule 62-4.040(1)(b), F.A.C.]

*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.

Exemptions under Rule 62-4.040(1)(b), F.A.C. (insignificant emissions), may be revoked if the installation is substantially modified or the basis for the exemption is determined to be materially incorrect.

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility does not operate 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, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- This facility is a synthetic non-Title V source for the pollutants Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

PERMIT HISTORY/AFFECTED PERMITS

This permit replaces Operation Permit 1030528-002-AO, 1030528-003-AF and 1030528-004-AF and incorporates terms and conditions of Construction Permit 1030528-007-AC as extended by Construction Permit 1030528-008-AC

SECTION 2. ADMINISTRATIVE REQUIREMENTS AND FACILITY-WIDE SPECIFIC CONDITIONS

ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Southwest District of the Department of Environmental Protection (Department). The mailing address, phone number and e-mail address is:

Florida Department of Environmental Protection
Southwest District Office
Air and Solid Waste Permitting Program
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: 813-470-5700
E-mail: SWD_Air_Permitting@dep.state.fl.us

All documents related to applications for permits to operate an emissions unit shall be submitted to the above e-mail address and/or address.

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

Pinellas County Air Quality Division
509 East Avenue South, Suite 138
Clearwater, Florida 33756
Telephone: 727-464-4422
E-mail: Airquality@pinellascounty.org

3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); and Appendix D (Common Testing Requirements).
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: No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification.
[Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Source Obligation:
 - (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation)

SECTION 2. ADMINISTRATIVE REQUIREMENTS AND FACILITY-WIDE SPECIFIC CONDITIONS

solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

- (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

8. **Renewal.** Prior to 60 days before the expiration date of this permit, the permittee shall apply for a renewal of the permit. A renewal application shall be timely and sufficient. If the application is submitted prior to 60 days before expiration of the permit, it will be considered timely and sufficient. If the renewal application is submitted at a later date, it will not be considered timely and sufficient unless it is submitted and made complete prior to the expiration of the operation permit. When the application for renewal is timely and sufficient, the existing permit shall remain in effect until the renewal application has been finally acted upon by the Department. To properly apply for an 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.; and
- c. copies of the most recent month of records/logs specified in Specific Condition Nos. **A.4., A.5., B.2. and B.3.**

[Rules 62-4.090, 62-210.300(2), and 62-210.900, F.A.C.]

9. **Annual Operating Report (AOR):** The information required by the Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Approved Local Program. All synthetic non-Title V sources shall submit a completed DEP Form 62-210.900(5) unless the annual operating report is submitted using the DEP's electronic annual operating report software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C.

[Rule 62-210.370(3), F.A.C.]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: <http://www.dep.state.fl.us/air/emission/eaor>. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

SECTION 2. ADMINISTRATIVE REQUIREMENTS AND FACILITY-WIDE SPECIFIC CONDITIONS

FACILITY-WIDE REQUIREMENTS

10. 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; Air Construction Permit No. 1030528-001-AC]
11. 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]
12. Restricted 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]
13. Emissions Standards: VOC and HAP emissions from all activities, including exempt emissions activities shall not exceed the following:
 - a. 50 tons of Volatile Organic Compounds (VOC) per any consecutive 12-month period;
 - b. 20 tons of Hazardous Air Pollutants (HAP) per any consecutive 12-month period.
[Rule 62-210.200 (PTE), F.A.C.]
14. General Recordkeeping Requirements: In order to document compliance with Facility-wide Specific Condition **No. 13.** 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]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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.

EU No.	Emission Unit Description
001	<p><u>Transformer Cleaning and Surface Coating Systems (VOC-RACT) -</u></p> <p>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.</p> <p><u>Superbute™ transformer manufacturing -</u></p> <p>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.</p> <p>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.</p>
004	<p><u>PT Transformer Paint Booth -</u></p> <p>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).</p>
005	<p><u>Superbute™ Touch-up Booth -</u></p> <p>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.</p> <p>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.</p>

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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

006	<p><u>Conveyorized Capacitor Paint Line -</u></p> <p>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.</p> <p>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.</p>
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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:
- 4.3 pounds per gallon of coating, excluding water delivered to a coating applicator that applies clear coatings;
 - 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;
 - 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; or,
 - 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coating application systems.
 - 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.
 - 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]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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

- 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.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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

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.]

RECORDS AND REPORTS

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.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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

- A.5. VOC and HAP Emission Recordkeeping Requirements: In order to document compliance with Facility Wide Specific Condition **No. 13.**, 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 HAP 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 HAP 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]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. 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.

ID No.	Emission Unit Description
002	<u>Miscellaneous Non-VOC RACT Activities</u> - 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	<u>All Non-VOC RACT Transformer/Capacitor Manufacturing Activities</u> - 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]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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

RECORDS AND REPORTS

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.
- e. The most recent consecutive 12-month period total 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.}

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 No. 1030528-001-AC]

B.3. VOC and HAP 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 HAP 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 HAP 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]