

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

August 23, 2021

PERMIT TO INSTALL
89-99K

ISSUED TO
Pollard Banknote Limited

LOCATED AT
775 James L. Hart Parkway
Ypsilanti, Michigan 48197

IN THE COUNTY OF
Washtenaw

STATE REGISTRATION NUMBER
N1622

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. 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: May 28, 2021 | |
| DATE PERMIT TO INSTALL APPROVED: August 23, 2021 | SIGNATURE: |
| DATE PERMIT VOIDED: | SIGNATURE: |
| DATE PERMIT REVOKED: | SIGNATURE: |

PERMIT TO INSTALL

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COMMON ACRONYMS

| | |
|----------------------------|---|
| AQD | Air Quality Division |
| BACT | Best Available Control Technology |
| CAA | Clean Air Act |
| CAM | Compliance Assurance Monitoring |
| CEMS | Continuous Emission Monitoring System |
| CFR | Code of Federal Regulations |
| COMS | Continuous Opacity Monitoring System |
| Department/department/EGLE | Michigan Department of Environment, Great Lakes, and Energy |
| EU | Emission Unit |
| FG | Flexible Group |
| GACS | Gallons of Applied Coating Solids |
| GC | General Condition |
| GHGs | Greenhouse Gases |
| HVLP | High Volume Low Pressure* |
| ID | Identification |
| IRSL | Initial Risk Screening Level |
| ITSL | Initial Threshold Screening Level |
| LAER | Lowest Achievable Emission Rate |
| MACT | Maximum Achievable Control Technology |
| MAERS | Michigan Air Emissions Reporting System |
| MAP | Malfunction Abatement Plan |
| MSDS | Material Safety Data Sheet |
| NA | Not Applicable |
| NAAQS | National Ambient Air Quality Standards |
| NESHAP | National Emission Standard for Hazardous Air Pollutants |
| NSPS | New Source Performance Standards |
| NSR | New Source Review |
| PS | Performance Specification |
| PSD | Prevention of Significant Deterioration |
| PTE | Permanent Total Enclosure |
| PTI | Permit to Install |
| RACT | Reasonable Available Control Technology |
| ROP | Renewable Operating Permit |
| SC | Special Condition |
| SCR | Selective Catalytic Reduction |
| SNCR | Selective Non-Catalytic Reduction |
| SRN | State Registration Number |
| TBD | To Be Determined |
| TEQ | Toxicity Equivalence Quotient |
| USEPA/EPA | United States Environmental Protection Agency |
| VE | Visible Emissions |

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10

POLLUTANT / MEASUREMENT ABBREVIATIONS

| | |
|-------------------|--|
| acfm | Actual cubic feet per minute |
| BTU | British Thermal Unit |
| °C | Degrees Celsius |
| CO | Carbon Monoxide |
| CO ₂ e | Carbon Dioxide Equivalent |
| dscf | Dry standard cubic foot |
| dscm | Dry standard cubic meter |
| °F | Degrees Fahrenheit |
| gr | Grains |
| HAP | Hazardous Air Pollutant |
| Hg | Mercury |
| hr | Hour |
| HP | Horsepower |
| H ₂ S | Hydrogen Sulfide |
| kW | Kilowatt |
| lb | Pound |
| m | Meter |
| mg | Milligram |
| mm | Millimeter |
| MM | Million |
| MW | Megawatts |
| NMOC | Non-Methane Organic Compounds |
| NO _x | Oxides of Nitrogen |
| ng | Nanogram |
| PM | Particulate Matter |
| PM10 | Particulate Matter equal to or less than 10 microns in diameter |
| PM2.5 | Particulate Matter equal to or less than 2.5 microns in diameter |
| pph | Pounds per hour |
| ppm | Parts per million |
| ppmv | Parts per million by volume |
| ppmw | Parts per million by weight |
| psia | Pounds per square inch absolute |
| psig | Pounds per square inch gauge |
| scf | Standard cubic feet |
| sec | Seconds |
| SO ₂ | Sulfur Dioxide |
| TAC | Toxic Air Contaminant |
| Temp | Temperature |
| THC | Total Hydrocarbons |
| tpy | Tons per year |
| µg | Microgram |
| µm | Micrometer or Micron |
| VOC | Volatile Organic Compounds |
| yr | Year |

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 Environment, Great Lakes, and Energy, 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 Rule 210 (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 Rule 219 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 Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(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 condition 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 Rule 301, 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 Rule 303 (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 Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT 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 (Including Process Equipment & Control Device(s)) | Installation Date / Modification Date | Flexible Group ID |
|-------------------------|---|--|--------------------------|
| EU-TRESU | A natural gas-fired flexographic printing line. The printing line prints the lottery game data. Water-based, solvent-based, and ultraviolet inks are used on the printing press. The printing press has non-fugitive enclosures to capture the emissions of VOC during printing. The solvent-based emissions are routed to an oxidizer and released through stack SV_CTO; the water-based emissions are exhausted to the atmosphere via two stacks (SV_WB-01 and SV_WB-02). | 05-01-2015 / 01-10-2018 / PTI Date | FG-TACs |
| EU-COMCO | A natural gas fired flexographic printing line. Water-based and ultra-violet inks are used in the printing press. | 12-21-2018 / PTI Date | FG-TACs |

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 336.1291.

**EU-TRESU
 EMISSION UNIT CONDITIONS**

DESCRIPTION

A natural gas-fired flexographic printing line. The printing line prints the lottery game data. Water-based, solvent-based, and ultraviolet inks are used on the printing press. The printing press has non-fugitive enclosures to capture the emissions of VOC during printing. The solvent-based emissions are routed to an oxidizer and released through stack SV_CTO; the water-based emissions are exhausted to the atmosphere via two stacks (SV_WB-01 and SV_WB-02).

Flexible Group ID: FG-TACs.

POLLUTION CONTROL EQUIPMENT

Catalytic oxidizer for the solvent-based materials.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|------------------|--------------|--|--|------------------------------------|---|
| 1. VOC | 10.7 tpy | 12-month rolling time period as determined at the end of each calendar month | EU-TRESU Controlled solvent based materials | SC VI.4 | R 336.1205, R 336.1225, R 336.1702(a) |
| 2. VOC | 32.8 tpy | 12-month rolling time period as determined at the end of each calendar month | EU-TRESU Uncontrolled water based materials | SC VI.4 | R 336.1225, R 336.1702(a) |

II. MATERIAL LIMIT(S)

| Material | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|---|--|---|--|------------------------------------|---|
| 1. VOC content of the inks and coatings | Shall not exceed 25%, by volume of the total volatile fraction, as applied | Instantaneous basis | EU-TRESU Uncontrolled water based materials | SC VI.1, SC VI.4, SC VI.5 | R 336.1702(a) |

* The phrase "minus water" shall also include compounds which are used as organic solvents, and which are excluded from the definition of volatile organic compound. **(R 336.1602(4))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste inks, cleanup solvents (e.g., press wash, roller wash), conditioner, transfer agent, etc. (materials) and store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1225, R 336.1702(a))**

2. The permittee shall handle all VOC and HAP containing materials, 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 336.1224, R 336.1225, R 336.1702(a))**
3. The permittee shall not operate solvent-based ink operation of EU-TRESU unless a malfunction abatement plan (MAP) as described in Rule 911(2), for satisfactory operation of the NFE and the RTO, has been submitted within 60 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 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any portion of EU-TRESU unless the non-fugitive enclosure is installed, maintained, and operated in a satisfactory manner. Satisfactory operation requires that the non-fugitive enclosure is operating at a pressure lower than all adjacent areas, so that air flows into the non-fugitive enclosure through all-natural draft openings (NDOs). NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. **(R 336.1225, R 336.1702, R 336.1910)**
2. The permittee shall not operate EU-TRESU while applying solvent based inks unless the catalytic oxidizer is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the catalytic oxidizer requires a minimum VOC destruction efficiency of 95 percent (by weight), and maintaining a minimum inlet operating temperature of 600°F, and a maximum space velocity of 50,000 inverse hours. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**
3. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the catalytic oxidizer to monitor and record the temperature on a continuous basis, during operation of EU-TRESU. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

V. TESTING/SAMPLING

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

1. Upon request from the AQD District Supervisor, the permittee shall verify the destruction efficiency of the catalytic oxidizer by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit 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 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

2. The permittee shall send a catalyst core sample to the manufacturer or a third party for catalyst activity testing at least once every 12 months with the exception that the testing frequency shall be increased to at least once every six months after the catalyst has been in service for six years, or if the annual test result indicates 96.0 percent activity or less at 600°F. Immediately upon removal, any catalyst core sample shall be replaced in the catalyst bed with a fresh catalyst replacement core according to the supplier's recommended procedures. If any catalyst core sample test results indicate that the catalyst activity is 95 percent or less at 600°F, the permittee shall notify the AQD District Supervisor in writing within 30 days of receiving the test results. Within 60 days of receiving test results that indicate catalyst activity is less than or equal to 95 percent, the permittee shall either replace the catalyst or verify the destruction efficiency of the EU-TRESU catalytic oxidizer by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit 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 336.1205, R 336.1225, R 336.1702(a), R 336.1910, R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall determine the VOC content of any material, as received and as applied, using federal Reference Test Method 24 or 24A pursuant to Rule 1040(5). Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 or 24A and the formulation values should differ, the permittee shall use the Method 24 or 24A results to determine compliance. **(R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

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(a))**
2. The permittee shall monitor and record the temperature in the catalytic oxidizer on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. All temperature data shall be kept on file using the method accepted by the District Supervisor, AQD and made available to the AQD upon request. **(R 336.1205, R 336.1702(a), R 336.1910)**
3. The permittee shall verify the non-fugitive enclosure for EU-TRESU semi-annually by verifying that the direction of air flow at each natural draft opening (NDO) is into the non-fugitive enclosure, using a smoke test (i.e., smoke bomb, smoke tube) or an approved alternate method. The permittee shall notify the AQD District Supervisor in writing at least 15 days before the test is scheduled. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of air flow direction includes the submittal of a complete report of the test results to the AQD District Supervisor within 30 days following the date of the test. After two consecutive tests demonstrate that the direction of air flow at each NDO is into the non-fugitive enclosure, the permittee may submit a request for a change in the testing frequency to the AQD District Supervisor for review and approval. **(R 336.1205, R 336.1702, R 336.1910)**
4. The permittee shall keep a separate written record of the following for EU-TRESU on a monthly basis:
 - a) Type of operation such as use of solvent-based material (controlled) or use of water-based material (uncontrolled).
 - b) The type of each material used and reclaimed. This includes but is not limited to inks, blanket wash/press wash or cleaning solvents, adhesives, ink-jet inks, makeup solvents, UV coatings, purge, and clean-up solvents, etc. (material).
 - c) Chemical composition of each material, including weight percent of each component.
 - d) The VOC content of each material, with water and exempt solvents, (in percent by weight or pounds per gallon), as received and as applied.
 - e) VOC mass emission calculations determining the monthly emission rate in tons per calendar month (separate for controlled and uncontrolled emissions).

- f) 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 (separate for controlled and uncontrolled emissions).
- g) VOC emission calculations determining the volume of VOCs in the inks and coatings, as a percentage of the total volatile fraction, including water, on an instantaneous basis, based upon an Instantaneous period (as applied).

The permittee shall keep the records using mass balance or an alternate method and 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(a))**

- 5. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702)**

VII. REPORTING

- 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 uncontrolled water-based materials portion of EU-TRESU. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

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

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|--|---|---|---|
| 1. SV_CTO (EU-TRESU Controlled solvent based materials) | 46 | 39 | R 336.1225, 40 CFR 52.21(c) & (d) |
| 2. SV_WB-01 (EU-TRESU Uncontrolled water-based materials) | 40 | 44 | R 336.1225, 40 CFR 52.21(c) & (d) |
| 3. SV_WB-02 (EU-TRESU Uncontrolled water-based materials) | 40 | 44 | R 336.1225, 40 CFR 52.21(c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**EU-COMCO
 EMISSION UNIT CONDITIONS**

DESCRIPTION

A natural gas-fired flexographic printing line. Water-based and ultra-violet inks are used in the printing press.

Flexible Group ID: FG-TACs

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|-----------|----------|--|-----------|-----------------------------|------------------------------------|
| 1. VOC | 13.5 tpy | 12-month rolling time period as determined at the end of each calendar month | EU-COMCO | SC VI.3 | R 336.1225, R 336.1702(d) |

II. MATERIAL LIMIT(S)

| Material | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|---|--|----------------------------------|-----------|-----------------------------|------------------------------------|
| 1. VOC content of the inks and coatings | Shall not exceed 25%, by volume of the total volatile fraction, as applied | Instantaneous basis | EU-COMCO | SC VI.1, SC VI.2, SC VI.3 | R 336.1702(a) |

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste inks, cleanup solvents (e.g., press wash, roller wash), conditioner, transfer agent, etc. (materials) and store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1225, R 336.1702(a))**
2. The permittee shall handle all VOC and HAP containing materials, 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 336.1224, R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

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 of any material, as received and as applied, using federal Reference Test Method 24 or 24A pursuant to Rule 1040(5). Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 or 24A and the formulation values should differ, the permittee shall use the Method 24/24A results to determine compliance. **(R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

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 336.1225, R 336.1702(a))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702)**
3. The permittee shall keep a separate written record of the following for EU-COMCO on a monthly basis:
 - a) The type of each material used. This includes but is not limited to inks, fountain solutions, blanket wash/press wash or cleaning solvents, adhesives, ink-jet inks, makeup solvents, UV coatings, purge, and clean-up solvents.
 - b) Chemical composition of each material, including weight percent of each component.
 - c) The VOC content of each material, with water (in percent by weight or pounds per gallon), as received and as applied.
 - d) VOC mass emission calculations determining the monthly emission rate in pounds per calendar month.
 - e) 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.
 - f) VOC emission calculations determining the volume of VOCs in the inks and coatings, as a percentage of the total volatile fraction, including water, on an Instantaneous basis.

The permittee shall keep the records using mass balance or an alternate method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702)**

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 EU-COMCO. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

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

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SV-COMCO (EU-COMCO) | 38 | 47 | R 336.1225, 40 CFR 52.21(c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FLEXIBLE GROUP SPECIAL CONDITIONS

FLEXIBLE GROUP SUMMARY TABLE

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

| Flexible Group ID | Flexible Group Description | Associated Emission Unit IDs |
|--------------------------|---|-------------------------------------|
| FG-TACs | Toxic air contaminants (TAC) emitted from two (2) emission units. | EU-TRESU, EU-COMCO |

**FG-TACs
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Toxic air contaminants (TAC) emitted from two (2) emission units.

Emission Unit: EU-TRESU, EU-COMCO

POLLUTION CONTROL EQUIPMENT

VOC emissions from EU-TRESU: Catalytic oxidizer for the solvent-based materials.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|---|--------------------------------|--|------------------|------------------------------------|---|
| 1. deanol (CAS No. 108-01-0) | 10,478.1 lb/yr ¹ | 12-month rolling time period as determined at the end of each calendar month | FG-TACs | SC VI.3 | R 336.1225(1) |
| 2. ethylene diamine (CAS No. 107-15-3) | 60.5 lb/yr ¹ | 12-month rolling time period as determined at the end of each calendar month | FG-TACs | SC VI.3 | R 336.1225(1) |
| 3. high benzene naphtha hydrotreated c6-c8 fraction (CAS No. 68410-97-9) | 2,015.0 lb/yr ¹ | 12-month rolling time period as determined at the end of each calendar month | FG-TACs | SC VI.3 | R 336.1225(1) |
| 4. deanol (CAS No. 108-01-0) | 53.1 lb/8-hr ¹ | Pounds per 8-hr | FG-TACs | SC VI.4 | R 336.1225(1) |
| 5. white mineral oil (CAS No. 8042-47-5) | 12.1 lb/8-hr ¹ | Pounds per 8-hr | FG-TACs | SC VI.4 | R 336.1225(1) |
| 6. ethanolamine (CAS No. 141-43-5) | 19.3 lb/8-hr ¹ | Pounds per 8-hr | FG-TACs | SC VI.4 | R 336.1225(1) |
| 7. ammonia (CAS No. 7664-41-7) | 2.0 pph ¹ | Pounds per hour | FG-TACs | SC VI.5 | R 336.1225(1) |

II. MATERIAL LIMIT(S)

1. The permittee shall not use more than the following solvent-based material on EU-TRESU: ¹ **(R 336.1225)**
 - a) In the printing line portion
 - i. 6.35 gallons of ink per hour
 - ii. 39,622 gallons of ink per rolling 12-month time period
 - b) In the morpholine portion
 - i. 1.37 gallons of morpholine per hour
 - ii. 8,564 gallons of morpholine per rolling 12-month time period
 - c) In the imager portion
 - i. 1.34 gallons per hour
 - ii. 8,389 gallons of ink per rolling 12-month time period.

2. The permittee shall not use more than the following water-based material portion on EU-TRESU: ¹ **(R336.1225)**
 - a) In the printing line portion
 - i. 16.18 gallons of ink per hour
 - ii. 100,968 gallons of ink per rolling 12-month time period
 - b) In the morpholine portion
 - i. 0.23 gallons of morpholine per hour
 - ii. 1,422 gallons of morpholine per rolling 12-month time period
 - c) In the imager portion
 - i. 1.34 gallons per hour
 - ii. 8,389 gallons of ink per rolling 12-month time period.
3. The permittee shall not use more than the following on EU-COMCO: ¹ **(R336.1225)**
 - a) In the printing line portion
 - i. 6.97 gallons of ink per hour
 - ii. 43,467 gallons of ink per rolling 12-month time period
 - b) In the morpholine portion
 - i. 0.02 gallons of morpholine per hour
 - ii. 110 gallons of morpholine per rolling 12-month time period
 - c) In the imager portion
 - i. 0.78 gallons per hour
 - ii. 4,889 gallons of ink per rolling 12-month time period.

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last 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(a))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, 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(a))**
3. The permittee shall keep the following information on a calendar month basis for FG-TACs:
 - a) Gallons (with water) of each deanol (CAS No. 108-01-0), ethylene diamine (CAS No. 107-15-3), and high benzene naphtha hydrotreated c6-c8 fraction (CAS No. 68410-97-9) (TAC_{Annual}) containing material used.
 - b) Where applicable, gallons (with water) of each TAC_{Annual} containing material reclaimed.
 - c) Each TAC_{Annual} content (with water) in pounds per gallon of each material used.
 - d) Each TAC_{Annual} mass emission calculations determining the monthly emission rate in tons per calendar month.

- e) Each TAC_{Annual} 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 using mass balance, or an alternative method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.¹ **(R 336.1225(1))**

4. The permittee shall keep the following information on 8-hour basis for FG-TACs:
 - a) Gallons (with water) of each deanol (CAS No. 108-01-0), white mineral oil (CAS No. 8042-47-5), and ethanolamine (CAS No. 141-43-5) (TAC_{8-hour}) containing material used.
 - b) Where applicable, gallons (with water) of each TAC_{8-hour} containing material reclaimed.
 - c) Each TAC_{8-hour} content (with water) in pounds per gallon of each material used.
 - d) Each TAC_{8-hour} mass emission calculations determining the emission rate in pounds per 8-hr time period.

The permittee shall keep the records using mass balance or an alternative method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.¹ **(R 336.1225(1))**

5. The permittee shall keep the following information on an hourly basis for FG-TACs:
 - a) Gallons (with water) of each ammonia (CAS No. 7664-41-7) containing material used.
 - b) Where applicable, gallons (with water) of each ammonia (CAS No. 7664-41-7) containing material reclaimed.
 - c) The ammonia (CAS No. 7664-41-7) content (with water) in pounds per gallon of each material used.
 - d) Ammonia (CAS No. 7664-41-7) mass emission calculations determining the emission rate in pounds per hour time period.

The permittee shall keep the records using mass balance or an alternative method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.¹ **(R 336.1225(1))**

6. The permittee shall keep a separate written record for the following for solvent-based material on EU-TRESU, water-based material on EU-TRESU, and EU-COMCO:
 - a) Actual operating hours per day
 - b) The amount of ink used in the printing line portion, morpholine portion, and imager portion, each separately, per hour.
 - c) The amount of ink used in the printing line portion, morpholine portion, and imager portion, each separately, per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records on file and make them available to the Department upon request.¹ **(R 336.1225)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

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

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|--|--|------------------------------------|--------------------------------------|
| 1. SV_CTO (EU-TRESU Controlled solvent based materials) | 46 | 39 | R 336.1225, 40 CFR 52.21(c) & (d) |

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|---|---|---|---|
| 2. SV_WB-01 (EU-TRESU Uncontrolled water-based materials) | 40 | 44 | R 336.1225, 40 CFR 52.21(c) & (d) |
| 3. SV_WB-02 (EU-TRESU Uncontrolled water-based materials) | 40 | 44 | R 336.1225, 40 CFR 52.21(c) & (d) |
| 4. SV-COMCO (EU-COMCO) | 38 | 47 | R 336.1225, 40 CFR 52.21(c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FGFACILITY CONDITIONS

DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.

POLLUTION CONTROL EQUIPMENT

A catalytic oxidizer for the solvent-based materials.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|------------------------|----------|--|------------|-----------------------------|------------------------------------|
| 1. Each Individual HAP | 8.9 tpy | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205(3) |
| 2. Aggregate HAPs | 22.4 tpy | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205(3) |

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

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 material, as applied, 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))

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205(3), R 336.1225(2))

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 annual emission rate of each in tons per year on a 12-month rolling time period basis as determined at the end of each calendar month.

The permittee shall keep the records using mass balance or an alternate method and 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))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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