Connecticut
Department of Energy &
Environmental Protection

DRAFT

BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

Owner/Operator	Wieland Rolled Products North America, LLC
Address	215 Piedmont Street, Waterbury, CT 06706
Equipment Location	215 Piedmont Street, Waterbury, CT 06706
Equipment Description	Metal Cleaning Degreaser (Solvent Degreasing Line No. 4)
Town-Permit Numbers	192-0317
Premises Number	53
Stack Number	4 and 17
Permit Issue Date	
Expiration Date	None

Emma Cimino
Deputy Commissioner

Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. DESIGN SPECIFICATIONS

A. General Description

Wieland Rolled Products North America, LLC (Wieland) operates an industrial manufacturing facility in Waterbury. Wieland is a secondary re-roll mill engaged in the manufacture of thin gauge stainless steel, copper, copper alloy, nickel, and nickel alloy strips to customers' specifications. Operations performed include cold rolling, annealing, pickling, cutting, electroplating, metal coil surface coating, degreasing, and the operation of boilers to produce hot water and steam for process and comfort use.

After rolling, the metal strip is passed through Solvent Degreaser Line No. 4 (degreaser) to remove residual roll oil from the metal surface. The strip is mounted in the form of a wound coil on the inlet side of the degreaser. During the degreasing process, the strip is unwound by use of tension and multiple rollers and pulled into the degreasing tank where the strip is submerged in cleaning solvent. As the strip exits the degreasing tank, a squeegee system removes residual solvent from the surface and prevents the carrying out of solvent liquid. The strip is then re-wound back into a roll coil on the finished side of the degreaser process and moved to further process areas accordingly. Dedicated exhaust ventilation takes place in the degreaser tank itself and the tank exit. The exhaust runs 24/7 and the suction from the exhaust prevents vapors from leaving the entrance and exit openings of the tank. Exhaust is sent via ducts to carbon adsorption system Tank A or Tank B for treatment and solvent reclamation prior to exiting the stack.

B. Equipment Design Specifications

1. Manufacturer and Model Number: HOYT, M-1450

2. Type of Solvent Cleaning Machine: Conveyorized (Continuous Web)

3. Solvent Recovery Still: ☒ Yes ☐ No

4. Solvent/Air Interface Area: 22.67 ft^2

5. Maximum Conveyor Speed: 450 ft/minute

C. Control Equipment Design Specifications

1. Carbon Adsorption
   a. Make and Model: HOYT
   b. Adsorbent: Granulated Activated Charcoal and Coconut Shell
   c. Number of Beds: 2
   d. Dimensions of Bed 1 and 2:
      i. Thickness in direction of gas flow: 30 inches
      ii. Cross-section area: 5,184 square inches
   e. Gas Flow Rate: 2,000 scfm
   f. Type of Regeneration: Steam
   g. Method of Regeneration: Alternate use of beds and steam
   h. Design Pressure Drop Across Unit: 6.25 in. H_2O
   i. Pollutant Controlled: VOC

D. Stack Parameters

Stack No.	Minimum Stack Height (ft)	Minimum Exhaust Gas Flow Rate (acfm)	Minimum Stack Exit Temperature (°F)	Minimum Distance from Stack to Nearest Property Line (ft)
4 (S-11a) Carbon Adsorption System – Bed A	27	1,460	43	70
17 (S-11b) Carbon Adsorption System – Bed B	27	1,460	43	75

PART II. OPERATIONAL CONDITIONS

A. Definitions

1. Solvent Consumption means the amount of solvent added to the solvent cleaning machine during the measurement period, less any reclaimed solvent added to the machine during the measurement period, plus any differential in the solvent contained in the reservoir at the beginning and ending of the measurement period.

2. Solvent Removed means the amount of solvent removed from the solvent cleaning machine less contaminants during the measurement period.

3. Solvent Emitted means Solvent Consumption less Solvent Removed during the measurement period.

B. Equipment and Control Equipment

1. The Permittee is allowed to operate the solvent cleaning machine using methylene chloride as authorized by Registration No. 192-0813-R until the solvent cleaning machine has achieved maximum capacity using TERGO™ XCF3. Once the solvent cleaning machine has achieved maximum capacity using TERGO™ XCF3, the Permittee shall request revocation of Registration No. 192-0813-R. The request to revoke Registration No. 192-0813 shall be submitted to the Department within 180 days of the issuance of this permit.

2. Allowable Solvents:
   a. TERGO™ XCF3 (contains a proprietary blend of trans-1,2-Dichloroethylene and 1-chloro-2,3,3-trifluoropropene)

3. Maximum Hourly Solvent Consumption: 424 lb/hr

4. Maximum Solvent Consumption: 3,714,240 lbs/12 consecutive months

5. Operational Conveyor Speed: 180 ft/minute

6. HOYT Carbon Adsorber
   a. Capture Efficiency: 100%
   b. Removal Efficiency: 98.9 %
   c. Overall Control Efficiency: 98.9 %

7. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.

8. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants.

9. All equipment operators shall be trained in the proper operation and maintenance of both the degreaser and control devices.

10. The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor beyond the property boundary of the premises that constitutes a nuisance as set forth in RCSA Section 22a-174-23. [STATE ONLY REQUIREMENT]

C. Work & Operational Practices for Conveyorized Degreasers

1. The Permittee shall:

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

   b. Use either a drying tunnel, rotating basket, or other equivalent method to prevent cleaned parts from carrying out solvent liquid.

   c. Prevent water from being visually detectible in solvent exiting the water separator.

   d. Do not operate the unit upon the occurrence of any visible solvent leak until such leak is repaired. Any leaked solvent or solvent spilled shall be immediately stored in covered containers for disposal or recycling.

   e. Install an interlock system to ensure that the carbon absorber bed is not bypass during desorption.

   f. Ensure that the lip exhaust, is located above the solvent cleaning machine cover, so that the cover closes below the lip exhaust level.

   g. Ensure that the lip exhaust is operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber.

   h. Provide a permanent, conspicuous label on or posted near the unit summarizing the applicable operating requirements.

PART III. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

A. Criteria Pollutants

1. Allowable Emissions

Pollutant	lb/hr	lb/month	Consecutive 12 Months (Tons)
VOC	3.26	2,429	14.3

B. Hazardous Air Pollutants

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA Section 22a-174-29. [STATE ONLY REQUIREMENT]

C. Demonstration of compliance with the above emission limits may be met by calculating the emission rates using emission factors from the following sources:

- VOC: Approved Stack Test Results

The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

A. Monitoring Requirements

1. The Permittee shall monitor the amount of solvent added and the amount of solvent removed from the solvent cleaning machine.

2. The Permittee shall visually inspect the continuous web part exiting the solvent cleaning machine to ensure that no solvent film is visible on the part. Such inspection shall be conducted weekly.

3. The Permittee shall visually inspect the carbon beds on a weekly basis.

4. The Permittee shall install, operate and maintain a flame ionization detector (FID) to continuously measure VOC concentration at the outlet of the carbon adsorption system.

5. The FID shall be equipped with an alarm that sounds when VOC levels exceed the applicable permitted limits or equivalent.

B. Record Keeping Requirements

1. The Permittee shall make and keep records of the degreasing tank level at the beginning and end of each shift.

2. The Permittee shall maintain monthly records of:
   i. The amount of "virgin" solvent added to the solvent cleaning machine, and
   ii. The amount of reclaimed solvent added to the solvent cleaning machine.

3. The Permittee shall make and keep weekly records of the visual inspections required in Part IV.A of this permit.

4. The Permittee shall keep records of the continuous reading from the FID monitor.

5. The Permittee shall keep records of all calibrations and maintenance done on the FID monitor.

6. The Permittee shall make and keep records of any alarm episodes and resolution. Such records shall include, but not be limited to:
   a. Date and time of alarm activation,
   b. Cause of alarm activation,
   c. Corrective actions taken, and
   d. Duration of control equipment downtime.

7. The Permittee shall record the monthly and consecutive 12 month solvent consumption, solvent removed, and solvent emitted. The consecutive 12 month solvent consumption, solvents removed, and solvents emitted shall be determined by adding each month's solvent consumption, solvents removed, and solvents emitted to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the previous month.

8. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for VOC emissions. The Permittee shall make these calculations within 30 days of the end of the previous month.

9. The Permittee shall keep material safety data sheets (MSDS) or technical data sheets (TDS) or Safety Data Sheets (SDS) for each chemical or solvent used. Such information shall include the quantity and type of each hazardous air pollutant contained in the paint or solvent. For paperwork reduction, these sheets may be kept on computer file in electronic form, access to above paperwork requirement may also be allowed via internet on-demand.

10. The Permittee shall make and keep records of the steam desorption cycle of the carbon adsorber and replacement of the adsorbent.

11. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

C. Reporting Requirements

1. The Permittee shall notify the commissioner in writing of any exceedance or deviation of an emission limitation or operating parameter, and shall identify the cause or likely cause of such exceedances or deviations, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures as follows:
   a. For any hazardous air pollutant, no later than 24 hours after such exceedance commenced; and

   b. For any other regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

2. The Permittee shall notify the commissioner, in writing, of the following:
   a. the date of initial startup of the solvent cleaning machine on TERGO™ XCF3; and
   b. the date the solvent cleaning machine achieved maximum capacity on TERGO™ XCF3 if it is within 180 days of the date reported in Part IV.C.2.a of this permit.

   The required written notification(s) above shall be submitted to DEEP.CACU@ct.gov, DEEP.SEM@ct.gov and DEEP.BAM.AirPermits@ct.gov no later than 30 days after the subject event.

PART V. STACK EMISSION TEST REQUIREMENTS

A. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website at www.ct.gov/deep/stacktesting.

B. Initial stack testing shall be required for the following:

☐ PM ☐ PM_{10} ☐ $PM_{2.5}$ ☒ VOC ☒ Other: Overall Control Efficiency

C. The Permittee shall conduct initial stack testing within 60 days of achieving the maximum production rate on TERGO™ XCF3, but not later than 180 days after initial startup of the solvent cleaning machine on TERGO™ XCF3.

D. Recurrent stack testing shall be conducted within five years from the date of the previous stack test. The Permittee shall submit test results within 60 days after completion of testing.

E. Stack test results shall be reported in units of lb/hr for VOC and % for overall control efficiency.

PART VI. SPECIAL REQUIREMENTS

A. Premises Emissions Summary

1. On January 1st of each calendar year, if the potential emissions of NOx or VOC from the premises are equal to or greater than 25 tons per year per pollutant, then for such pollutant(s), the Permittee shall:
   a. Monitor NOx and/or VOC emissions, as applicable, from the premises for such calendar year.
   b. Calculate and record annual NOx and/or VOC emissions, as applicable, from the premises for such calendar year, in units of tons. The Permittee shall make these calculations on or before February 1st of the following year with respect to the previous calendar year. Such records shall include a sample calculation(s).
   c. If actual NOx and/or VOC emissions, as applicable, from the premises are equal to or greater than 25 tons for such calendar year, the Permittee shall submit to the commissioner, on or before March 1st of the following year, an annual emissions summary with respect to the premises for the previous calendar year. Such summary shall be submitted on forms prescribed or provided by the commissioner.

2. A Permittee is exempt from Part VI.A.1 requirements of this permit if, on January 1st of the subject year, the premises was operating in accordance with any of the following:
   a. A valid Title V permit issued pursuant to RCSA section 22a-174-33;
   b. RCSA section 22a-174-33a; or
   c. RCSA section 22a-174-33b.

PART VII. ADDITIONAL TERMS AND CONDITIONS

A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.

B. Any representative of DEEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.

C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.

D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.

E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

F. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.

G. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.

H. The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

I. Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.