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# 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	Har-Conn Chrome Company		
Address	603 New Park Avenue, West Hartford, CT 06110		
Equipment Location	144 Shield Street, West Hartford, CT 06110		
Equipment Description	Spray Booth #2: Global Finishing Solutions with Binks Trophy 2465-14V-32SO Spray Gun		
Town-Permit Numbers	202-0070		
Premises Number	248		
Stack Number	2		
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

Global Finishing Solutions Spray Booth with Binks Trophy 2465-14V-32SO Spray Gun, or equivalent.

#### B. Equipment Design Specifications

- 1. Type of Spray Gun: High Volume Low Pressure (HVLP) (Binks Trophy2465-14V-32SO Spray Gun, or equivalent)
- 2. Number of Spray Guns per Booth: 1
- 3. Maximum Rated Spray Gun Throughput (gallons per hour): 2.0
- 4. Minimum Transfer Efficiency (%): 65

#### C. Control Equipment Design Specifications

- 1. Particulate Filter
  - a. Make and Model: 3 Stage Filtration Group Finishing Series 2000, or equivalent
  - b. Filtering Material: Fabric
  - c. Minimum Particulate Matter Filter Removal Efficiency (%): 99.99

#### D. Stack Parameters

- 1. Minimum Stack Height (ft): 32.8
- 2. Minimum Exhaust Gas Flow Rate (acfm): 8750
- 3. Minimum Stack Exit Temperature (°F): Ambient
- 4. Minimum Distance from Stack to Nearest Property Line (ft): 15.5

#### PART II. OPERATIONAL CONDITIONS

#### A. Equipment

- 1. Maximum Hourly Coating Usage, as Applied (gal): 2.0
- 2. Maximum Annual Coating Usage, as Applied (gal): 1875. Shall not exceed the allowable annual emissions limits in Part III.A of this permit.

- 3. Maximum continuous hours of operation in any 8 hour period for specified coatings/HAPs:
  - a. Chromic acid: 7.4 hrs
  - b. Bonderite S-FN 213 Dryfilm: 5.4 hrs
  - c. Bonderite S-FN M 254N: 7.2 hrs
- 4. The coating usage limits apply to any of the following components or mixtures of the following components: Paint, Enamel, Lacquer, Catalyst, Primer, Reducer, Sealer, Diluent, Additive, or other Coating Material or Preparation.

### 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

Pollutant	lb/hr	lb/month	tpy
PM	2.1e-3		5.2e-3
PM10	8.0e-4		3.5e-3
PM <sub>2.5</sub>	8.0e-4		3.5e-3
VOC	3.13	1,666 <sup>1</sup>	4.99

<sup>1</sup>- Premise-Wide limit of 1,666 pounds of VOC emissions per month from all miscellaneous metal and plastic parts surface coating operations. [RCSA §22a-174-20(s)(7)(G)]

#### 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 and HAPs: Material Balance
  - For Particulate (all fractions): the Material Balance calculations may assume a transfer efficiency of 65% and an overall particulate control efficiency of 99.99%.

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

- 1. The Permittee shall perform inspections of the particulate filter as recommended by the manufacturer.
- 2. The Permittee shall monitor spray booth operating hours when applying coatings listed in Part II.A.3 of this permit.

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## B. Record Keeping



- 1. The Permittee shall keep daily records for each coating and diluent used, such records shall include:
  - a. Date coating used;
  - b. Description of coating, including name and density (lb/gal);
  - c. Volatile organic compound content by weight (lb VOC/gal);
  - d. Water and exempt VOC content by weight (lb/gal);
  - e. VOC content per amount of solids applied (Ib VOC/Ib solids applied);
  - f. Quantity of coating used (gal/day); and
  - g. Quantity of diluent used for each coating (lb, gallons).
- 2. The Permittee shall calculate and record the monthly and consecutive 12 month VOC, PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions in units of tons. The consecutive 12 month VOC, PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.
- 3. The Permittee shall keep annual records of the type and quantity of any solvent used to clean the guns and booth. In addition, accurate annual records must be kept of the quantity and type of solvents spilled, evaporated, or manifested as waste material.
- 4. The Permittee shall make and keep records of spray booth operating hours and the coating being applied when applying coatings listed in Part II.A.3 of this permit.
- 5. The Permittee shall keep material safety data sheets (MSDS) or technical data sheets (TDS) or Safety Data Sheets (SDS) for each paint and 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.
- 6. Daily records shall clearly display, at a minimum, compliance with all materials usage and emissions limitations set forth in this permit.
- 7. The Permittee shall make and keep the following daily records of all cleaning solvent used: [RCSA §22a-174-20(jj)(6)(B)]
  - a. Name and description of each cleaning solvent;
  - b. VOC content of each cleaning solvent, as-applied, and the associated calculations;
  - c. VOC content of each cleaning solvent, as supplied;
  - d. The amount of each cleaning solvent;
  - e. A Material Safety Data Sheet for each cleaning solvent; and
  - f. A description of the type of cleaning equipment and process.
- 8. The Permittee shall make and keep the following records in accordance with 40 CFR §63.11177:
  - a. Certification that each painter has completed the training specified in 40 CFR §63.11173(f) with the date the initial training and the most recent refresher training was completed;
  - b. Documentation of the filter efficiency of any spray booth exhaust filter material,

according to the procedure in 40 CFR §63.11173(e)(3)(i);

- c. Documentation from the spray gun manufacturer that each spray gun with a cup capacity equal to or greater than 3.0 fluid ounces (89 cc) that does not meet the definition of an HVLP spray gun, electrostatic application, airless spray gun, or air assisted airless spray gun, has been determined by the Administrator to achieve a transfer efficiency equivalent to that of an HVLP spray gun, according to the procedure in 40 CFR §63.11173(e)(4);
- d. Copies of any notification submitted as required by 40 CFR §63.11175 and copies of any report submitted as required by 40 CFR §63.11176; and
- e. Records of any deviation from the requirements in 40 CFR §§ 63.11173, 63.11174, 63.11175, or 63.11176. These records must include the date and time period of the deviation, and a description of the nature of the deviation and the actions taken to correct the deviation.
- 9. 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

- 1. The Permittee shall notify the commissioner, in writing, of the following:
  - a. the date of initial startup of this equipment.

Any required written notifications above shall be submitted to <u>DEEP.CACU@ct.gov</u> and <u>DEEP.BAM.AirPermits@ct.gov</u> no later than 30 days after the subject event.

- 2. The Permittee shall submit an initial notification to the Administrator in accordance with 40 CFR §63.11175.
- 3. The Permittee shall submit the annual notification of changes to the Administrator in accordance with 40 CFR §63.11176.

# PART V. OPERATION AND MAINTENANCE REQUIREMENTS

- A. The Permittee shall comply with all written recommendations set forth by the manufacturer(s) for maintaining and operating the spray gun, spray booth, and particulate filter in order to achieve their guaranteed transfer and capture efficiencies. The control equipment shall be place at all times. In addition, methods used to increase transfer efficiency shall include, but not be limited to, the following:
  - 1. Minimize the distance from the spray gun to the object being coated;
  - 2. Minimize the air velocity in the spray booth (but not below health-based requirements); and
  - 3. Keep the atomizing air pressure to a minimum level, as recommended by the spray gun manufacturer.
- **B.** The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants.
- **C.** The Permittee shall cover all open drums and vessels that contain solvents, cleaners, coatings, or cleaning rags so as to minimize the amount of VOCs emitted to the atmosphere. Empty containers shall be disposed of in a manner consistent with handling techniques for

hazardous materials, as applicable.



- **D.** Work Practices: [RCSA 22a-174-20(s)(5)]
  - New and used VOC-containing coating, diluent or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;
  - 2. Spills and leaks of VOC-containing coating, diluent or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating, diluent or cleaning solvent shall be absorbed and removed immediately;
  - 3. Absorbent applicators, such as cloth and paper, which are moistened with a VOCcontaining coating or solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and
  - 4. VOC-containing coating, diluent and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.
- E. The Permittee shall utilize an enclosed gun cleaner for spray application equipment cleaning operations, in accordance with RCSA §22a-174-20(jj)(4)(A).
- F. Work Practices: [RCSA §22a-174-20(jj)(5)]
  - 1. New and used cleaning solvent, including those mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;
  - 2. Spills and leaks of cleaning solvent shall be minimized. Any leaked or spilled cleaning solvent shall be absorbed and removed immediately;
  - 3. Absorbent applicators, such as cloth and paper that are moistened with cleaning solvent shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and
  - 4. Cleaning solvent shall be conveyed from one location to another in a closed container or pipe.
- G. The Permittee shall comply with the following [40 CFR §63.11173(e)]:
  - 1. All painters must be certified that they have completed training in the proper spray application of surface coatings and the proper setup and maintenance of spray equipment. The minimum requirements for training and certification are described in Part V.H of this permit. The spray application of surface coatings is prohibited by persons who are not certified as having completed the training described in Part V.H of this permit. The requirements of this paragraph do not apply to the students of an accredited surface coating training program who are under the direct supervision of an instructor who meets the requirements of this paragraph.

- 2. All paint spray gun cleaning must be done so that an atomized mist or spray of gun cleaning solvent and paint residue is not created outside of a container that collects used gun cleaning solvent. Spray gun cleaning may be done with, for example, hand cleaning of parts of the disassembled gun in a container of solvent, by flushing solvent through the gun without atomizing the solvent and paint residue, or by using a fully enclosed spray gun washer. A combination of non-atomizing methods may also be used.
- H. The Permittee shall comply with the following [40 CFR §63.11173(f)]:
  - Each owner or operator of an affected miscellaneous surface coating source must ensure and certify that all new and existing personnel, including contract personnel, who spray apply surface coatings, as defined in 40 CFR §63.11180, are trained in the proper application of surface coatings as required by 40 CFR 63.11173(e). The training program must include, at a minimum, the items listed below:
    - a. List of all current personnel by name and job description who are required to be trained.
    - b. Hands-on and classroom instruction that addresses, at a minimum, initial and refresher training in the topics listed in Part V.H.1.b.i through iv. of this permit.
      - i. Spray gun equipment selection, set up, and operation, including measuring coating viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate.
      - ii. Spray technique for different types of coatings to improve transfer efficiency and minimize coating usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke.
      - iii. Routine spray booth and filter maintenance, including filter selection and installation.
      - iv. Environmental compliance with the requirements of 40 CFR Part 63 Subpart HHHHHH.
    - c. A description of the methods to be used at the completion of initial or refresher training to demonstrate, document, and provide certification of successful completion of the required training. Permittee's who can show by documentation or certification that a painter's work experience and/or training has resulted in training equivalent to the training required in Part V.H.1.b of this permit are not required to provide the initial training required by that paragraph to these painters.
- I. The Permittee shall comply with the following [40 CFR §63.11173(g)]:
  - 1. All painters must be trained and certified no later than 180 days after hiring. Painter training that was completed within five years prior to the date training is required, and that meets the requirements specified in Part V.H.1.b of this permit satisfies this requirement and is valid for a period not to exceed five years after the date the training is completed.
  - 2. Training and certification will be valid for a period not to exceed five years after the date the training is completed, and all personnel must receive refresher training that meets the requirements of this section and be re-certified every five years.

#### PART VI. SPECIAL REQUIREMENTS

A. The Permittee shall comply with all applicable sections of the following National Emission Standards for Hazardous Air Pollutants at all times.

Title 40 CFR Part 63, Subpart HHHHHH and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

## B. Premises Emissions Summary

- 1. On January 1<sup>st</sup> 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 1<sup>st</sup> 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 1<sup>st</sup> 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.B.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.
- **C.** 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]
- D. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA Sections 22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]
- E. The Permittee shall resubmit for review and approval a Best Available Control Technology (BACT) analysis if such construction or phased construction has not commenced within the 18 months following the commissioner's approval of the current BACT determination (i.e., the date of this permit) for such construction or phase of construction. [RCSA §22a-174-3a(j)(4)]

## PART VII. ADDITIONAL TERMS AND CONDITIONS

- A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and A 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 the 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 of 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.

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