February 11, 2020

Virginie Antoine-Pompey, Chief

Office of Environment and Safety

Bureau of Engraving and Printing

U.S. Department of the Treasury

14th and C Streets, SW

Washington, D.C. 20228

Dear Mr. Antoine-Pompey:

Re: **Permit 7276 to Construct and Operate One Large Examining and Printing Equipment (LEPE) Press (Identified as LEPE 4)**

Pursuant to sections 200.1 and 200.2 of Title 20 of the District of Columbia Municipal Regulations (20 DCMR), a permit from the Department of Energy and Environment (the Department) shall obtained before any person may construct and operate a new stationary source in the District of Columbia. The application of U.S. Department of the Treasury, Bureau of Engraving and Printing (the Permittee) to construct and operate one (1) Large Examining and Printing Equipment (LEPE), Dela Rue Giori, Super Orlof Currency printing line, a non-heatset, sheet-fed, letterpress printing press unit (identified as LEPE 4), at the Bureau of Engraving and Printing, in the Main Building, 4th Floor A Wing, at 14th and C Streets SW, per your application with cover letter dated September 24, 2019, is hereby granted subject to the following conditions:

I. General Requirements:

a. The press, identified as LEPE 4, shall be operated in compliance with the applicable air pollution control requirements of 20 DCMR, Subtitle A.

b. This permit will expire on February 10, 2025 [20 DCMR 200.4]. If continued construction or operation after this date is desired, the Permittee shall submit an application for renewal by November 10, 2024.

c. The equipment shall be constructed and operated in accordance with the application described above. If any changes are necessary, revised plans must be submitted and supplemental approval issued prior to actual construction.

d. Operation of equipment under the authority of this permit shall be considered acceptance of its terms and conditions.

e. The Permittee shall allow authorized officials of the District, upon presentation of identification, to:

1. Enter upon the Permittee’s premises where a source or emission unit is located, an emissions related activity is conducted, or where records required by this permit are kept;

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit;

3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor, at reasonable times, any substance or parameter for the purpose of assuring compliance with this permit or any applicable requirement.

f. This permit shall be kept on the premises and produced upon request.

g. Failure to comply with the provisions of this permit may be grounds for suspension or revocation. [20 DCMR 202.2]

h. The Permittee shall, within 12 months of issuance of this permit, submit a permit application to revise the the facility’s Chapter 3 (Title V) permit (No. 035-R1) to include the requirements of this permit in the Title V permit. [20 DCMR 301.1(a)(2)]

II. Emission Limitations:

a. Emissions of volatile organic compounds (VOC) from the ink used in the process shall not exceed 0.04 pounds per press hour. Except when tested on a one-time basis in accordance with Condition IV(e), compliance with this condition shall be determined on a monthly average basis. Monthly average emissions shall be calculated by determining the amount of ink used in the LEPE press in a given month, in pounds, multiplying that value by the percent of the ink used that is emitted as VOC emissions (5% based on the 95% ink VOC retention factor found in document EPA-453/R-06-002), and dividing the result by the number of hours of operation of the press that month. [20 DCMR 201]

b. VOC emissions from any cleaning solvents used shall not exceed 0.40 pounds per press hour. Except when tested on a one-time basis in accordance with Condition IV(e) of this permit, compliance with this condition shall be determined on a monthly average basis. Monthly average emissions shall be calculated by determining the amount of each cleaning solvent used by the LEPE press in a given month, in pounds, multiplying that by the percent of the solvent used that is emitted (100% of the solvent VOC content shall be assumed to be emitted except where a solvent retention factor for low vapor pressure solvents used in manual cleaning is applied in accordance with document EPA-453/R-06-002, as revised), and dividing the result by the number of hours of operation of the press. [20 DCMR 201]

c. The total annual VOC emitted from the ink and cleaning solvent as a result of operation of the press shall not exceed 1.92 tons in any 12-month period. [20 DCMR 201]

d. Visible emissions shall not be emitted into the outdoor atmosphere from the printing press. [20 DCMR 107 and 606]

e. An emission into the atmosphere of odorous or other air pollutants from any source in any quantity and of any characteristic, and duration which is, or is likely to be injurious to the public health or welfare, or which interferes with the reasonable enjoyment of life or property is prohibited . [20 DCMR 903]

III. Operational Limitations:

1. The VOC content of any ink used in connection with the press shall not be greater than thirty percent (30%) by weight. [20 DCMR 201 and 20 DCMR 716.11(d)]
2. The Permittee shall not use, in conjunction with the press, cleaning solutions containing VOCs in excess of one of the following limits (i.e. meeting one or the other of the listed standards will be considered compliance with this condition) [20 DCMR 716.8]:

1. Seventy percent (70%) VOC (by weight); or

 2. Ten millimeters of mercury (10 mm Hg) at twenty degree Celsius (20o C or 68o F) of VOC composite partial pressure calculated as follows:



 where:

Ppc = VOC composite partial pressure at twenty degrees Celsius (20°C) or sixty-eight degrees Fahrenheit (68º F), in mm Hg;

W*i*  = Weight of the "i"th VOC compound, in grams, as determined by ASTM E 260-91;

Ww = Weight of water, in grams as determined by ASTM D 3792-86;

We  = Weight of the "i"th exempt compound, in grams, as determined by ASTM E 260-91;

Mw*i* = Molecular weight of the "i"th VOC compound, in grams per g-mole, as given in chemical reference literature;

Mww  = Molecular weight of water, eighteen grams (18 g.) per g- mole;

Mwe = Molecular weight of the "i"th exempt compound, in grams per g-mole, as given in chemical reference literature; and

Vp*i* = Vapor pressure of the "i"th VOC compound at twenty degrees Celsius (20º C) or sixty-eight degrees Fahrenheit (68º F), in mm. Hg, as determined in accordance with ASTM test method ASTM D2879-86.

1. All containers holding VOC containing materials shall be open only when necessary and openings shall be restricted to the extent feasible. [20 DCMR 716.21]
2. The leaking of any solvent or solvent-containing material from any printing unit or associated equipment is prohibited. [20 DCMR 716.22]
3. The storage or disposal of any solvent-containing material, including waste material, in a manner that will cause or allow its evaporation into the atmosphere is prohibited. [20 DCMR 716.23]
4. To the greatest extent feasible, persons operating printing unit and associated equipment shall minimize their use of VOC containing materials by restricting wasteful usage and by replacing the material with emulsions or other materials. [20 DCMR 716.24]

g. At all times, including periods of startup, shutdown, and malfunction, the owner shall, to the extent practicable, maintain and operate the unit in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating procedures are being used will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

IV. Monitoring and Testing Requirements:

a. The Permittee shall monitor the types, constituents, characteristics, and quantities of inks and cleaning solvents used on the press to ensure compliance with Conditions III(a) and (b).

b. The Permittee shall monitor use of storage containers for VOC and solvent-containing material and disposal practices for such materials to ensure compliance with Conditions III(c) and (e).

1. The Permittee shall monitor the status of the press and related equipment to ensure that no leaking is occurring and that they are being operated properly to ensure compliance with Conditions III(d) and (g). Any leaks identified as a result of this monitoring shall be repaired promptly.
2. The Permittee shall monitor and continually review and observe operational practices to ensure compliance with Condition III(f).
3. The Permittee shall conduct and allow the Department access to conduct tests of air pollution emissions from any source as requested. [20 DCMR 502.1]
4. At least on a quarterly basis and whenever there is a change in formulation of inks, the Permittee shall analyze samples of each ink used on the press during that quarter to determine the weight percent VOCs in the inks. [20 DCMR 502.1]

Testing pursuant to this condition shall be performed as follows:

1. The percentage VOC content is by weight and applies to the inks and solutions as contained in the storage of the printing unit. The VOC content does not include water. [20 DCMR 716.12(a)]

2. The percentage VOC content of the inks shall be determined in accordance with Procedure B of ASTM test method D-2369-81. In lieu of testing the formulated inks and solutions, the individual components of the formulations may be calculated there from. [20 DCMR 716.12(b)]

3. The percentage water content shall be determined in accordance with ASTM test method D-3792-79. [20 DCMR 716.12(c) ]

 g. The Permittee shall monitor the emission points for visible emissions as needed to ensure compliance with Condition II(d).

V. Record Keeping Requirements:

The following information shall be maintained at the facility for a period not less than five (5) years from the date the information is collected [20 DCMR 302.1(c)(2)(B) and 20 DCMR 716.25] and shall be made available to the Department upon written or verbal request:

a. Records of the identity and volume of each cleaning solvents used on the presses each month;

b. Records of the mass of each ink used on the presses each month;

c. Records of the VOC content, by weight, of each ink used.

d. Records of the chain of custody of each ink sample taken as well as the identification of any laboratory used to analyze the sample and the methods used by that laboratory.

e. Records of the identity and vapor pressure of any cleaning solvents used. This information is usually contained in Safety Data Sheets (SDSs) or other product data sheets for the products used.

f. Records, updated monthly, of the total mass of VOCs emitted as a result of the operation of the presses (including VOCs emitted by use of inks and cleaning solvents);

g. Records, updated monthly, of the average VOC emissions per hour of press operation that month from each of the following sources:

1. inks; and

2. solvents.

(Note: these records shall be used to determine compliance with Conditions II(a) and (b) of this permit. They shall be updated within thirty (30) days of the end of each calendar month.);

h. Records of the maintenance performed on the presses.

VI. Reporting Requirements:

1. A copy of the analytical results of the ink samples taken quarterly under Condition IV(f) shall be submitted to the Department with the Permittee’s Title V semi-annual and annual reports required pursuant to conditions I(d)(1) and (2) of Title V Permit No. 035-R1.

b. Threat to Public Health, Safety, and the Environment: The Permittee shall immediately report any permit deviation that poses an imminent and substantial danger to public health, safety, or the environment. [20 DCMR 302.1(c)(3)(C)(ii)] This shall be reported to the Department’s Emergency Operations number at (202) 645-5665.

c. Emission Exceedance: The Permittee shall immediately notify the Air Quality Division by telephone via the Department’s Emergency Operations number at (202) 645-5665, of any exceedance of any emission limit or any limit established as a surrogate for emissions. Additionally, the Permittee shall submit to the Air Quality Division a written notice of such exceedance within two working days of discovery. [20 DCMR 500.1]

d. In addition to complying with Condition VI(b) and (c) and any other reporting requirements mandated by the 20 DCMR, the Permittee shall, within thirty (30) calendar days of becoming aware of any occurrence of excess emissions, supply the Department in writing with the following information:

1. The name and location of the facility;

2. The subject source(s) that caused the excess emissions;

3. The time and date of the first observation of the excess emissions;

4. The cause and estimated/expected duration of excess emissions;

5. For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and

6. The proposed corrective actions and schedule to correct the conditions causing the excess emission.

If you have any questions, please contact me at (202) 535-1747 or Abraham T. Hagos at (202) 535-1354.

Sincerely,

Stephen S. Ours, P.E.

Chief, Permitting Branch

SSO/ATH