September 5, 2018

David Kaczka, EMD Manager, BEP OEHS

U.S. Department of the Treasury

Bureau of Engraving and Printing

14th and C Streets SW

Washington DC 20228

Dear Mr. Kaczka:

 Re: **Permit No. 7209 to Construct and Operate One (1) Sheet Fed, Non-Heatset, Offset, Lithographic, Komori Lithrone SX729 (LSX729) Seven-Color Printing Press at the Bureau of Engraving and Printing**

Pursuant to §200.1 and §200.2 of Title 20 of the District of Columbia Municipal Regulations (20 DCMR), a permit shall be obtained from the Department of Energy and Environment (the Department) before any person may cause or allow the construction or operation of a stationary source in the District of Columbia. The request of the U.S. Department of the Treasury, Bureau of Engraving and Printing (the Permittee) to operate one (1) Komori Lithrone SX729 (LSX729) seven-color, sheet fed, non-heatset, offset, lithographic printing press in the A Wing, Room A-170 of the Main Building at 14th and C Streets SW, per the application, dated April 11, 2018, is hereby granted subject to the following conditions:

I. General Requirements:

a. The sheet fed, non-heatset, offset, lithographic, Komori Lithrone SX729 (LSX729) seven-color, printing press shall be operated in compliance with all applicable air pollution control requirements of 20 DCMR.

b. This permit expires on September 4, 2023 (20 DCMR 200.4). If continued operation after this date is desired, the owner or operator shall submit an application for renewal by June 4, 2023.

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

d. The Permittee shall allow authorized officials of the Department, 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 these permits; 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.

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

f. Failure to comply with the provisions of these permits may be grounds for suspension or revocation. [20 DCMR 202.2]

g. If not already completed, within twelve (12) months of issuance of this permit, the Permittee shall submit a complete application to modify the facility’s Title V operating permit to include the requirements of this permit. [20 DCMR 301.1(a)(3)].

II. Emission Limitations:

a. The maximum annual emissions of volatile organic compounds (VOC) resulting from the operation of the press shall not exceed 0.97 tons per 12-month rolling period. [20 DCMR 201]

b. Visible emissions shall not be emitted into the outdoor atmosphere from the press. [20 DCMR 606.1]

c. 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 Permittee shall not use, in conjunction with this printing press, cleaning solutions containing VOCs in excess of ten millimeters of mercury (10 mm Hg) at twenty degree Celsius (20o C or 68o F) of VOC composite partial pressure calculated as follows [20 DCMR 716.8]:



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 or other method identified as acceptable pursuant to 20 DCMR 747.6.

b. The Permittee shall not utilize fountain solution in conjunction with the press in excess of five percent (5%) alcohol (by weight) in the fountain, or to achieve an equivalent level of control, any one of the following shall occur [20 DCMR 716.6(c)]:

 1. Reduce the on-press (as-applied) alcohol content to five percent (5%) alcohol or less (by weight);

 2. Use eight and half percent (8.5%) alcohol or less (by weight) on-press (as-applied) in the fountain solution, provided the solution is refrigerated to less than sixty degree Fahrenheit (60º F) or sixteen degree Celsius (16º C); or

 3. Use an alcohol substitute so that the on-press (as applied) VOC content is five percent (5%) or less (by weight) as determined by EPA Method 24 and no alcohol is in the fountain solution.]

 c. 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]

 d. Cleaning solutions and shop towels used for cleaning shall be kept in closed containers. [20 DCMR 716.9]

 e. The leaking of any solvent or solvent-containing material from any printing unit or associated equipment is prohibited. [20 DCMR 716.22]

 f. 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]

 g. 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]

h. 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, cleaning solvents, and fountain solutions used on the press to ensure compliance with Conditions III(a) and (b).

 b. To show compliance with Condition III(a), the Permittee shall perform one of the following:

 1. Perform testing of each cleaning solution used in accordance with EPA Reference Method 24 (40 CFR 60, Appendix A) that is to be used in the unit prior to initial use and semi-annually thereafter; or

 2. Perform testing or obtain and review accurate documentation for each cleaning

 solution showing that the composite partial pressure of all VOC’s contained in each solution is not greater than 10 mm Hg at 20º C. The composite partial pressure is to be calculated pursuant to the equation in Condition III(a).

c. The Permittee shall monitor the use of storage containers for VOC and solvents-containing materials to ensure compliance with Condition III(c).

d. The Permittee shall monitor the use of cleaning solutions and shop towels to ensure compliance with Condition III(d).

 e. The Permittee shall monitor the status of the press and associated equipment to ensure that no leaking is occurring and that they are being properly operated to ensure compliance with Condition III(e). Any leaks identified shall be repaired promptly.

 f. In addition to general monitoring, at least once per quarter, the Permittee shall perform a thorough inspection of the press, associated equipment, and all solvent storage containers to ensure compliance with Conditions III(e) and (h). Any leaks identified shall be repaired promptly.

g. Except as specified in Condition IV(h), 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 presses during that quarter to determine the weight percent VOCs in the inks. [20 DCMR 502.1]

Compliance determinations and 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. Except as specified in Condition III(g)(3), 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 VOC content of ultraviolet (UV) cured inks shall be determined by either methods ASTM D5403 or D7767. [20 DCMR 502.3]

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

h. Individual inks whose usage does not exceed 100 pounds in a calendar year may comply with the following in lieu of complying with the requirements of Condition III(g) during that calendar year [20 DCMR 502.3]:

1. Prior to the use of any ink in this category, the Permittee shall obtain records from the manufacturer of the ink documenting the VOC content of the ink and the method(s) used to determine the VOC content;

2. If the ink is used at a rate exceeding 10 pounds in a calendar year, the Permittee shall, during that calendar year, perform at least one analysis in accordance with Condition III(g) except that the analysis may be performed once during the year rather than quarterly;

3. For all inks covered by this condition, if the method(s) used to determine the VOC content identified by the manufacturer in Condition III(h)(1) are not consistent with the methods specified in Condition III(g), or if the method cannot be obtained from the manufacturer, the Permittee shall, no more than one month after the first use of the ink, perform a one-time initial analysis of the ink in accordance with the methods specified in Condition III(g) to document compliance.

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

j. The Permittee shall monitor the facility for compliance with the nuisance and odor requirements of Condition II(c).

k. 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]

V. Record Keeping Requirements:

The following information shall be maintained at the facility for a period not less than five (5) years from the time 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. The Permittee shall maintained records of the types, constituents, characteristics, and quantities of inks, cleaning solutions, and dampening solutions used on the press to show compliance with Conditions III(a) and (b).

b. The Permittee shall maintain records of the results of testing or the records of the manufacturers’ documentation obtained pursuant to Conditions III(a) and IV(b), (g), and (h). Chains of custody for all samples shall be required as part of the testing records required.

c. The Permittee shall maintain records of any leaks identified pursuant to Conditions IV(c) as well as the actions taken to halt any leaking identified.

d. The Permittee shall maintain records of the results of the quarterly (or more frequent) inspections of the press, associated equipment, and solvent storage containers performed pursuant to Condition IV(d). These records shall identify the inspector(s) who performed the inspections and these inspectors shall sign or initial the records to certify that they performed the complete inspection and that the records represent the results of the inspection.

e. The Permittee shall keep records of any occurrences of visible emissions from the emission points of these units as well as any actions taken to correct the problem.

f. The Permittee shall keep records of any occurrences of exceedances of the requirements of Condition II(c) and any odor complaints received. The Permittee shall also keep records of the actions taken to correct any identified odor or nuisance pollutant exceedances.

g. The Permittee shall keep 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. The Permittee shall keep records of the total emissions of VOC from operation of the press on a monthly and 12-month rolling basis to document compliance with Condition II(a).

i. The Permittee shall keep records of the maintenance performed on the press and associated equipment.

j. The Permittee shall keep records of the results of any testing required pursuant to Condition IV(k).

VI. Reporting Requirements:

a. A copy of the most recent analytical results of the ink, cleaning solvent, and fountain solution samples or other documentation kept pursuant to Condition V(b) 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 the facility’s Title V Permit No. 035-R1, issued February 7, 2018.

b. The Permittee shall comply with the reporting requirements of Condition I(d)(4) of the facility’s Title V Permit No. 035-R1, issued February 7, 2018 for the equipment covered by this permit.

c. In addition to complying with Condition VI(b) 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 me at (202) 535-1747 or Abraham T. Hagos at (202) 535-1354.

Sincerely,

Stephen S. Ours, P.E.

Chief, Permitting Branch

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