

**GOVERNMENT OF THE DISTRICT OF COLUMBIA**  
Department of Energy and Environment

**CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM**

TO: File

THROUGH: Stephen S. Ours, P.E.  
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FROM: Afewerki Birhane  
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**SUBJECT: United States Government Publishing Office  
Permit No. 7355 for New Koenig & Bauer Rapida 160 X Sheetfed Offset  
Printing Press (Press Group 90, GPO Unit ID 6957)**

DATE: September 14, 2023

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**BACKGROUND INFORMATION**

On June 29, 2023, the Air Quality Division ("AQD") of the Department of Energy and Environment ("DOEE" or "the Department") received an application from the United States Government Publishing Office ("GPO") to install one (1) New Koenig & Bauer Rapida 106 X sheetfed offset lithographic printing press, in Building C, on the second floor. Revisions to the application were received by email from Daryl Kosturock on September 8, 2023 and September 11, 2023. GPO has assigned this unit to Press Group 90 and assigned GPO unit ID 6957.

The applicant has not requested that any of the information submitted to the Department be held confidential pursuant to 20 DCMR 101.

**TECHNICAL INFORMATION**

The press to be constructed and operated pursuant to this permitting action is a Koenig & Bauer Rapida 106 X sheetfed offset lithographic printing press.

At this time, the potential to emit volatile organic compounds (VOC) from this facility exceeds 25 tons per year (TPY), the threshold for a major source. Based on the emission calculations provided by the facility, this particular press has the potential to emit 4.50 TPY of VOC. These emissions are based on an assumption of unlimited operations (8,760 hours per year) except that GPO has requested a combined limit on the use of Aqueous Coating Q9009B and Aqueous Coating Q9010B of 57,500 gallons in any 12-consecutive-month period.

Based on information provided to the Department the unit had the potential to emit 0.05 TPY of hazardous air pollutants (HAP), specifically ethylene glycol.

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The facility is currently covered by Title V Operating Permit No. 029-R1-A4. Within one year of startup, GPO is required to apply to have the requirements to which this unit are subject under Chapter 2, incorporated into the Title V permit.

### **REGULATORY REVIEW**

In developing this permit, the following regulations were evaluated for applicability.

#### 20 DCMR Chapter 2, Section 200: General Permit Requirements

Pursuant to 20 DCMR 200.1 and 200.2, because the equipment is a stationary source that has the potential to emit air pollutants, a permit from the Department must be obtained to install and operate the equipment. The equipment was originally installed without the required permit; however this permitting action will address this deficiency.

#### 20 DCMR Chapter 2, Section 204: Permit Requirements for Sources Affecting Non-Attainment Areas

Because the facility is not significantly increasing emissions as a result of the press (the potential to emit VOCs of 4.50 tons per year (TPY) is well below the 25 TPY value meeting the definition of "significant"), the requirements of this section are not applicable.

#### 20 DCMR Chapter 2, Section 205: New Source Performance Standards

There are no NSPS subparts applicable to this printing press.

#### 20 DCMR Chapter 2, Section 209: Permit Requirements for Non-Major Stationary Sources (Minor New Source Review)

In the initial permit application, the potential emissions of VOCs (13.52 TPY) were well above the 5 TPY threshold for applicability of this regulation. However, when this was brought to GPO's attention, they submitted a revision to the application requesting a limit on the use of two of the aqueous solutions used on the equipment. Specifically, they requested a combined limit of 57,500 gallons per year (interpreted for permitting purposes as gallons per 12-consecutive-month rolling period) of Aqueous Coating Q9009B and Aqueous Coating Q9010B. They did not request any limit on the use of the other materials used in the equipment, but maintained the levels estimated for 8,760 hours per year of use that were originally estimated. Taking this limit on the aqueous solution use reduced their potential to emit to 4.50 tons per 12-consecutive-month rolling period. This limit is taken in accordance with 20 DCMR 200.7 and must be made federally enforceable due to the requirements of that section, despite being used to avoid applicability of 20 DCMR 209, which is a District-enforceable only regulation. With this limit incorporated, 20 DCMR 209 is not applicable to this equipment.

#### 20 DCMR Chapter 3: Operating Permits and Acid Rain Programs

As discussed above, the facility has the potential to emit greater than the major source threshold of VOCs. As such, the facility already has a Title V permit (No. 029-R1-A4). Condition I(g) of the attached permit requires that GPO apply to have the Title V permit amended to incorporate

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the requirements of this permit within 12 months of initial startup of the printing press. Additionally, the record keeping requirements in the permit have been extended to five years from the three-year standard required elsewhere as Chapter 3 requires this longer retention schedule.

### 20 DCMR Chapter 6: Particulates

No significant amount of particulate matter is expected to result from construction or operation of this equipment. As a result, the visible emission requirements of 20 DCMR 606 have been included in Condition II(b), but no other particulate matter requirements have been included in the permit. However, because any visible emissions from this type of source would be an indication of improper operation of the equipment, the language of this requirement was made more stringent to not allow any visible emissions from the equipment. This modification was made pursuant to authority under 20 DCMR 201.

### 20 DCMR Chapter 7: Volatile Organic Compounds and Hazardous Air Pollutants

20 DCMR 716 is applicable to all lithographic printing operations. The requirements of this section are included throughout the proposed permit, but especially significantly throughout the operating conditions of Condition III. Appropriate monitoring, testing, record keeping, and reporting requirements have been included in subsequent sections of the permit to make those requirements enforceable as a practical matter.

It should be noted that the “offset lithography printing operation” (all offset lithography presses at the site in combination) has been calculated to have a “theoretical potential to emit” (see 20 DCMR 716.1(a) and 20 DCMR 715.1) of well over 25 TPY of VOC. As such, 20 DCMR 716.8(a) is applicable rather than 716.8(b). As a result, GPO must use only cleaning solutions with VOC composite partial pressure of less than 10 mmHg at 20°C. They do not have the alternative option of using cleaning solutions up to 70% by weight VOCs. This requirement is included in the permit.

Because the unit is a lithographic press, 20 DCMR 710 is not applicable. Because 20 DCMR 716 is applicable, 20 DCMR 700 is not applicable.

### 20 DCMR Chapter 9, Section 903: Odorous or Other Nuisance Air Pollutants

“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 903.1 ]” is applicable to all sources. It can be found in Condition II(c) of the permit. Additionally, based on the recent (August 4, 2023) revisions to 20 DCMR 903, the affirmative defense provision of 20 DCMR 903.13(b) has been added to the permit as a continuation of Condition II(c).

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#### 40 CFR 63 – National Emission Standards for Hazardous Air Pollutants for Source Categories

The potential to emit HAPs from this press (0.05 TPY) is lower than the threshold required to trigger Part 63 NESHAPs applicable to a lithographic press. Two NESHAPs were considered for applicability, but found to not be applicable:

1. 40 CFR 63, Subpart JJJJ - National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating – This NESHAP only applies to facilities that are major sources of HAPs. GPO is not a major source of HAPs, so this subpart is not applicable to them.
2. 40 CFR 63, Subpart KK - National Emission Standards for the Printing and Publishing Industry – This regulation does not apply to this unit as it is not a rotogravure or wide-web flexographic printing press.

#### 40 CFR 64 – Compliance Assurance Monitoring (CAM)

This regulation is not applicable to this equipment pursuant to 40 CFR 64.2(a)(3). In order for 40 CFR 64 to be applicable, the unit must be subject to an emission limitation or standard, use a control device to achieve compliance with it, and pre-control device emissions from the unit must exceed the major source threshold for the controlled pollutant. In this case, no control device is used to achieve compliance. Therefore, 40 CFR 64 is not applicable.

## **RECOMMENDATIONS**

The proposed project and attached permit comply with all applicable federal and District air pollution control laws and regulations.

The application and draft permit will be posted for public review in the D.C. Register and on the DOEE website on September 22, 2023 and will be available for public comment through October 23, 2023. If no public comments are received, it is recommended that permit No. 7355 be issued immediately following the comment period. If comments are submitted or a hearing is requested, AQD will consider all comments before determining whether it is appropriate to issue the permit as drafted.

SSO/AB