

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM

TO: File

THROUGH: Stephen S. Ours, P.E.
Chief, Permitting Branch, Air Quality Division

FROM: Wyatt Bohmann
Environmental Protection Specialist

**SUBJECT: United States Government Publishing Office
Permit No. 7385 to Construct and Operate a Winkler+Dünnebier I-Jet 3
Sheetfed Digital Envelope Printing Press (Press Group 9, GPO Unit ID 5839)**

DATE: October 15, 2024

BACKGROUND INFORMATION

On April 25, 2024, 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 and operate one (1) Winkler+Dünnebier I-Jet 3 sheetfed digital envelope printing press with serial number M16.595 on the 2nd floor of Building C, at 732 North Capitol Street NW, Washington DC. GPO has assigned this unit to Press Group 9 and assigned GPO unit ID 5839.

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 Winkler+Dünnebier I-Jet 3 sheetfed digital envelope printing press.

Currently, the potential to emit volatile organic compounds (VOC) from this facility exceeds 25 tons per year (TPY), classifying it as a major source. According to the facility's emission calculations, this specific press would have the potential to emit 6.29 TPY of VOCs if operated continuously (8,760 hours per year), using exclusively the ink with the highest VOC content proposed for use. However, GPO has requested a combined limit on the use of aqueous inks (DuraFlex PZ 2 Yellow, Black, Cyan, and Magenta) to 6,250 gallons over any consecutive 12-month period, which would limit VOC emissions to 4 TPY

CHAPTER 2 TECHNICAL MEMORANDUM

United States Government Publishing Office

**Permit No. 7385 to Construct and Operate a Winkler+Dünnebier I-Jet 3 Sheetfed Digital
Envelope Printing Press (Press Group 9, GPO Unit ID 5839)**

October 15, 2024

Page 2

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.

Estimated Emissions:

The equipment, per the request of the applicant, will be limited to a 12-consecutive-month rolling period usage of 6,250 gallons of ink to reduce the VOC emissions from the press to 4.00 TPY. Without this restriction, annual VOC emissions from the equipment would reach 6.29 TPY, exceeding the 5 TPY threshold that triggers Minor New Source Review applicability under 20 DCMR 209.

The equipment is not expected to emit any other criteria pollutants or any hazardous air pollutants (HAPs).

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 permit proposed by this action will address this requirement.

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 4.00 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)

The equipment, operating at its maximum possible annual usage of 9,845 gallons, using only the aqueous ink with the highest VOC content, would be subject to Minor New Source Review as it would emit 6.29 TPY of VOC which is beyond the applicability threshold of 5 TPY. To avoid applicability to 20 DCMR 209, the applicant has proposed taking an annual usage limit of 6,250 gallons per 12-consecutive-month rolling period to bring the potential annual VOC emissions to 4 TPY. This limit is proposed 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

CHAPTER 2 TECHNICAL MEMORANDUM

United States Government Publishing Office

Permit No. 7385 to Construct and Operate a Winkler+Dünnebier I-Jet 3 Sheetfed Digital Envelope Printing Press (Press Group 9, GPO Unit ID 5839)

October 15, 2024

Page 2

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 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(c), 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 700 is applicable to the envelope press because the press is not subject to subsequent sections of Chapter 7. Pursuant to 20 DCMR, no person shall discharge into the atmosphere more than fifteen (15) pounds of volatile organic compound (VOC) emissions in any one (1) day, nor more than three pounds (3 lb.) in any one (1) hour, from any combination of articles, machines, units, equipment, or other contrivances at a facility, unless the uncontrolled VOC emissions are reduced by at least ninety percent (90%) overall capture and control efficiency. The requirements of this regulation are incorporated into Condition II(b) of the permit for this unit. Monitoring is included in Conditions IV(b) and (c). Record keeping requirements are included in Condition V(b).

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(d) 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(d).

CHAPTER 2 TECHNICAL MEMORANDUM

United States Government Publishing Office

Permit No. 7385 to Construct and Operate a Winkler+Dünnebier I-Jet 3 Sheetfed Digital Envelope Printing Press (Press Group 9, GPO Unit ID 5839)

October 15, 2024

Page 2

20 DCMR 1404: Emission Standards for the Printing and Publishing Industry

This regulation adopts the requirements of 40 CFR 63, Subpart KK, to which the proposed unit is not subject as the unit is not considered a publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing press, as defined in 40 CFR 63.822. Therefore, 20 DCMR 1404 does not apply to this envelope 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 October 25, 2024 and will be available for public comment through November 25, 2024. If no adverse comments are received, it is recommended that permit No. 7385 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.

WEB