

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM

TO: File

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SUBJECT: **United States Government Publishing Office
Permit No. 6683 for ZMR T-48A Web Press as Part of Group 95**

DATE: March 14, 2017

BACKGROUND INFORMATION

On December 5, 2012 the Air Quality Division (“AQD”) of the Department of Energy and Environment (“DOEE” or “the Department”) received an application from the United States Government Printing Office (later renamed the United States Government Publishing Office) (“GPO”) to install a ZMR T-48A Web Press (“ZMR press”) in Building C (also known as Building 3). It is classified by the facility as part of Group 95. An updated application was received on September 26, 2014. These applications were, however, incomplete. GPO had difficulty estimating potential emissions from planned equipment. As a result, AQD was unable to act upon the application.

In 2015, AQD became aware that GPO had installed the press despite not having first obtained a permit. Inspectors were informed that the unit had been in operation since December 2014. A notice of infraction (NOI) was issued on or about October 5, 2015. As of the date of this writing, this case is unresolved.

On February 7, 2017, AQD received a final set of potential to emit calculations for the ZMR press as well as a number of other presses at the facility. AQD is now moving forward with permitting of the unit.

The Company has not requested that any of the information submitted to the Department be held confidential pursuant to 20 DCMR 106.

TECHNICAL INFORMATION

The equipment to be permitted is a ZMR T-48A Web Press operated as part of Group 95. The unit is a blanket-to-blanket, shaftless, heat-set, web offset lithographic press equipped with an

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integrated afterburner to control emissions. GPO has asserted that the afterburner will result in a destruction and removal efficiency of 90%. On April 15, 2015, GPO performed an emission test on the unit that resulted in a finding that the achieved destruction efficiency was actually 98.7%. 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 February 7, 2017 emission calculations, the ZMR press has the potential to emit 0.734 TPY after the assumed 90% control efficiency from the afterburner.

The facility is currently covered by extended Title V Operating Permit #029 which is currently in the renewal process.

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.

As discussed above, the facility constructed and began operation of the equipment without such a permit. However, a permit is still required. This permitting action is taking place to address this need.

It should be noted that the equipment comes with an integrated afterburner for reducing emissions of VOCs by at least 90%. This control device was included in the permit application. AQD added temperature monitoring and related requirements to the permit to ensure proper operation of the afterburner equipment.

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 this project (potential emissions of VOCs of 0.734 TPY are 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 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 an extended Title V permit (#029) that is currently in the renewal process. Condition 1(g) of the attached permit requires that the Title V permit application be supplemented within 180 days of the initiation of operation of this press.

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Additionally, the record keeping requirements in the permit have been extended to five years from three years 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(a), 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 lithography 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. As a result of the permit review, it was identified that GPO has historically used some non-compliant cleaning solutions. They were notified that these solutions can no longer be used.

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.

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

There are no identified Part 63 NESHAPs applicable to this lithographic press. Two NESHAPs were considered for applicability, but found to not be applicable:

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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, the pre-control potential emissions have been estimated to be 7.34 TPY of VOC, well below the District's major source threshold of 25 TPY. 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 (except as discussed above with regard to the installation and operation of the equipment without a permit).

The application and draft permit will be posted for public review in the D.C. Register and on the DOEE website on March 10, 2017 and will be available for public comment through April 10, 2017. If no public comments are received, it is recommended that permit No. 6683 be issued. 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/EAC