

Air Quality Division



**CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM**

**TO:** File

**THROUGH:** Stephen S. Ours, P.E. *SSO*  
Chief, Permitting Branch

**FROM:** Abraham T. Hagos *ATH*  
Environmental Engineer

**SUBJECT:** U.S. Department of the Treasury, Bureau of Engraving and Printing  
Permit (#6378) to Operate a Chrome Plating Line for Intaglio Printing Plate  
Manufacture

**DATE:** April 28, 2015

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**BACKGROUND INFORMATION**

The Air Quality Division (“AQD”) of the District Department of the Environment (“DDOE” or “the Department”) received an application with cover letter, dated April 30, 2010, from the U.S. Department of the Treasury, Bureau of Engraving and Printing (“BEP”) for modification of Permit (#5839) issued on July 31, 2006, to construct and operate a chrome plating line installed in the facility’s main building in room D200. This modification application contained revised emission limits, which are based on the results of the compliance tests that were conducted at BEP on the chrome plating line on March 3 and 4, 2010. On or about June 18, 2014, an update of that application was submitted.

The facility 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 chrome plating line for the manufacture of intaglio printing plates. This line includes three electrolytic plating tanks and three electrolytic de-chrome/de-greasing tanks. These tanks are powered by three rectifiers. The plating baths are not covered. It also include three wash sinks, two working and mounting tables, three packed bed scrubbers



## **CHAPTER 2 TECHNICAL MEMORANDUM**

### **U.S. Department of the Treasury, Bureau of Engraving and Printing**

### **Permit (#6378) to Operate a Chrome Plating Line for the Manufacture of Intaglio Printing Plates**

April 28, 2015

Page 2

(1500), one on each plating bath, and one three-stage composite mesh pad scrubber (6900 CMP).

## **REGULATORY REVIEW**

### **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. Conditions have been added to the permit pursuant to the authority of this regulation (and Section 201) to reflect approval of the applicant's equipment as proposed with limits on the potential to emit based on what was represented in the application. The permit requirements, if complied with, are expected to ensure proper operation of the equipment.

### **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 modification permit, the requirements of this section are not applicable.

### **Chapter 2, Section 205: New Source Performance Standards**

There are no NSPS subparts applicable to this plating line.

### **Chapter 3: Operating Permits and Acid Rain Programs**

The facility has the potential to emit greater than the major source threshold of VOCs, though this particular equipment is not expected to emit VOCs. As such, the facility already has a Title V permit (#035). It is in the permit renewal process. Condition I(h) of the attached permit requires that a Title V permit application update be supplemented within 90 days of the issuance of the permit to request that the requirements of this permit be included in the renewed Title V permit. 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.

### **Chapter 6: Particulates**

No significant amount of particulate matter is expected to result from the operation of this equipment. As a result, the visible emission requirements of 20 DCMR 606 has been included in Condition II(d), but no other particulate matter requirements have been included in the permits. However, because any visible emissions from this type of source would be an indication of improper operation of the equipment, the language of this visible emissions 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.

### **Chapter 7: Volatile Organic Compounds and Hazardous Air Pollutants**

This equipment is not expected to emit VOCs. As such, this regulation is not applicable. While the plates and dies being plated are to be used for intaglio printing, this does not trigger the applicability of 20 DCMR 710.

## **CHAPTER 2 TECHNICAL MEMORANDUM**

**U.S. Department of the Treasury, Bureau of Engraving and Printing**

**Permit (#6378) to Operate a Chrome Plating Line for the Manufacture of Intaglio Printing Plates**

April 28, 2015

Page 3

### **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(e) of this permit.

### **40 CFR 63 Subpart N– National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations**

This federal regulation is applicable to the facility because BEP is an area source of HAPs and the equipment to be permitted is chromium electroplating equipment which is a source of HAPs. The chrome plating line is considered “existing” under this regulation as it was installed and commenced operation (prior to February 8, 2012) in 2009. In general, the facility complies with the control requirements of this regulation with the use of a packed bed scrubber mounted on each chromium plating bath and a three-stage composite mesh pad scrubber.

All relevant requirements of this regulation have been incorporated into the permit. Some of the more significant requirements are noted below.

The emission standards of 40 CFR 63.342(c)(1)(ii) are included in Condition II(a) of the permit. Condition II(b) of the permit contains the “allowable mass emission rate of the system” ( $AMR_{sys}$ ) determined by the method specified in 40 CFR 63.344(e)(3), used to show compliance with Condition II(a).

The primary requirement to maintain the facility as a “small hard chromium electroplating facility” has been included in Condition III(b) with relevant monitoring and record keeping requirements in later parts of the permit.

The requirements related to a facility operation and maintenance plan are included in Condition III(f), including the housekeeping procedures found in Table 2 of the regulation.

All applicable record keeping requirements were included in Condition V of the permit. It should be noted that records will be required to be kept for five years, rather than three per 20 DCMR 500.8, due to the more stringent five year requirement in 40 CFR 63.346 and the difficulty of having two different document retention policies for federally required records and District-required records.

Note that the facility already submitted the required initial notification on May 18, 2010. BEP also submitted the required notification of compliance status on May 18, 2010, but submitted an updated and revised notification of compliance status with the June 2014 application.

**CHAPTER 2 TECHNICAL MEMORANDUM**

**U.S. Department of the Treasury, Bureau of Engraving and Printing**

**Permit (#6378) to Operate a Chrome Plating Line for the Manufacture of Intaglio Printing Plates**

April 28, 2015

Page 4

For a thorough review of the requirements of this regulation and how they apply to the proposed installation, please see the June 2014 permit application update submitted by BEP.

**RECOMMENDATIONS**

The application 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 DDOE website on May 8, 2015 and will be available for public comment through June 8, 2015. If no public comments are received, it is recommended that permit (#6378) 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/ATH