

STATEMENT OF BASIS (SOB)
COLORMASTERS, INC.
Albertville, Alabama
Facility No. 711-0066

Colormasters, INC. has applied for renewal of Major Source Operating Permit (MSOP) No. 711-0066. This proposed Title V MSOP renewal has been developed in accordance with the provisions of ADEM Admin. Code r. 335-3-16. The above-named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans, and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of the permit.

The facility was originally constructed in November of 2012. The initial Title V MSOP was issued on July 8, 2013 and this is the second renewal. The current MSOP was issued on July 8, 2018 and expires on July 7, 2023. The renewal application was received on October 6, 2022.

The facility is located in Marshall County, which is currently in compliance with all National Ambient Air Quality Standards (NAAQS).

There are no current or ongoing enforcement actions against Colormasters necessitating additional requirements to achieve compliance with the proposed permit conditions. The enforcement and compliance history for the facility can be found at <https://echo.epa.gov/> (Search using Facility ID AL110046228480).

The current MSOP consists of:

Line #006: Flexographic printing presses No. 1 and No. 2 with associated equipment and 4.0 MMBTU/hr natural gas fired regenerative thermal oxidizer (RTO-2).

Line #007: Flexographic printing presses No. 3 and No. 4 with associated equipment and 4.0 MMBTU/hr natural gas fired regenerative thermal oxidizer (RTO-1).

Line #008: Flexographic printing presses No. 5 and No. 6 with associated equipment and 4.0 MMBTU/hr natural gas fired regenerative thermal oxidizer (RTO-3).

No major additions or changes to the current MSOP are occurring during this renewal. Minor changes include updating the language of general permit proviso No. 18 for fugitive dust to better reflect Department policy and the requirement of stack testing every five years.

EMISSIONS:

The facility is a major source with respect to Title V for volatile organic compounds (VOCs). The greenhouse gas (GHG) emissions from the facility's natural gas fired ovens do not exceed major source thresholds. No other criteria pollutants are emitted in sufficient quantities, actually or potentially, to exceed the Prevention of Significant Deterioration (PSD) significant threshold of 250 tons per year.

Colormasters, Inc. will maintain their current Units 006, 007, and 008's rolling 12-month emission limitations of 245, 245, and 39.0 tons of VOC, respectively, and their facility-wide 24.5/9.5 tons total HAPs/single HAP limits. There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) or Federal New Source Performance Standards (NSPS).

OPERATIONS:

This facility's SIC Code is 2673 for the flexographic printing (roller coating) of polyethylene bags, and their NAICS Code is 322223 for the manufacturing of bags, plastics film and custom blend film. This facility operates 8,760 hours a year.

Each of the significant emission units is described below:

Permit Unit No. X006 – Flexographic Printing Presses No. 1 and No. 2

Overview

This unit currently operates two ten-color printing presses. Each press is heated by two 0.80 MMBtu/hr natural gas fired burners. The inks and solvents are blended in a mixing room prior to being pumped to the presses. Emissions from Presses No. 1 and No. 2 are vented to RTO-2.

Equipment for this process was initially permitted in Air Permit 711-0066-X001 on July 27, 2012, for Press No. 1 and in Air Permit 711-0066-X002 on March 10, 2014, for Press No. 2. Air Permit 711-0066-X001 was incorporated into the initial Title V permit on July 8, 2013. Presses No. 1 and 2 were then re-permitted together along with RTO-2 in Air Permit 711-0066-X003 on August 20, 2015, which was subsequently incorporated into the Title V permit on January 13, 2017. Finally, this equipment was re-permitted in Air Permit 711-0066-X006 on October 27, 2017, which was incorporated into the Title V on July 8, 2018.

Emission Standards/Limitations

Opacity and Particulate Matter (PM)

RTO-2 is subject to the state opacity standard.

The unit is also subject to the state allowable particulate limit for general industries. However, due to natural gas being the primary fuel of the process, almost no PM is generated.

Volatile Organic Compounds (VOC)

The combined VOC emissions from Presses No. 1 and No. 2 are limited to 245 tons per year in order to stay below the significant thresholds for PSD. This limit was established in Air Permit

711-0066-X001 issued on July 27, 2012, which was subsequently incorporated into the Title V permit on July 8, 2013.

Hazardous Air Pollutants (HAPs)

The combined total-HAPs and individual HAP emissions from the entire facility are limited to 24.5 and 9.5 TPY respectively in order to stay below the significant thresholds for Title V. These limits were established in Air Permit 711-0066-X001 issued on July 27, 2012, which was subsequently incorporated into the Title V permit on July 8, 2013.

Periodic Monitoring

Opacity and PM

No opacity monitoring/visual inspections are currently required due to the low PM emissions expected from the process. However, if any issues with PM from the facility are indicated, the Department will modify the permit to require monitoring/inspections.

Volatile Organic Compounds (VOC)

The 3-hour rolling average temperature of RTO-2 shall be maintained above the minimum temperature established by the most recent RTO efficiency performance test. During times when the RTO is operating above the established minimum temperature, VOC destruction efficiency (DRE) is assumed to be 95%. During times when the RTO is operating below the established minimum temperature, VOC DRE is assumed to be 0%, and the processes shall shut down after 15 minutes.

Permit Unit No. X007 – Flexographic Printing Presses No. 3 and No. 4

Overview

This unit currently operates two ten-color printing presses. Each press is heated by two 0.80 MMBtu/hr natural gas fired burners. The inks and solvents are blended in a mixing room prior to being pumped to the presses. Emissions from Presses No. 3 and No. 4 are vented to RTO-1.

Equipment for this process was initially permitted in Air Permit 711-0066-X004 on August 20, 2015, for Press No. 3 Along with RTO-1 and in Air Permit 711-0066-X005 on August 31, 2016, for Press No. 4. Presses No. 3 and 4 were then re-permitted together in Air Permit 711-0066-X007 on October 27, 2017, which was subsequently incorporated into the Title V permit on July 8, 2018.

Emission Standards/Limitations

Opacity and PM

RTO-1 is subject to the state opacity standard.

The unit is also subject to the state allowable particulate limit for general industries. However, due to natural gas being the primary fuel of the process, almost no PM is generated.

Volatile Organic Compounds (VOC)

The combined VOC emissions from Presses No. 3 and No. 4 are limited to 245 tons per year in order to stay below the significant thresholds for PSD. This limit was established in Air Permit 711-0066-X002 issued on March 10, 2014, which was subsequently incorporated into the Title V permit on July 8, 2018.

Hazardous Air Pollutants (HAPs)

The combined total-HAPs and individual HAP emissions from the entire facility are limited to 24.5 and 9.5 TPY respectively in order to stay below the significant thresholds for Title V. These limits were established in Air Permit 711-0066-X001 issued on July 27, 2012, which was subsequently incorporated into the Title V permit on July 8, 2013.

Periodic Monitoring

Opacity and PM

No opacity monitoring/visual inspections are currently required due to the low PM emissions expected from the process. However, if any issues with PM from the facility are indicated, the Department will modify the permit to require monitoring/inspections.

Volatile Organic Compounds (VOC)

The 3-hour rolling average temperature of RTO-1 shall be maintained above the minimum temperature established by the most recent RTO efficiency performance test. During times when the RTO is operating above the established minimum temperature, VOC destruction efficiency (DRE) is assumed to be 95%. During times when the RTO is operating below the established minimum temperature, VOC DRE is assumed to be 0%, and the processes shall shut down after 15 minutes.

Permit Unit No. X008 – Flexographic Printing Presses No. 5 and No. 6

Overview

This unit currently operates two ten-color printing presses. Each press is heated by two 0.80 MMBtu/hr natural gas fired burners. The inks and solvents are blended in a mixing room prior to being pumped to the presses. Emissions from Presses No. 5 and No. 6 are vented to RTO-3.

Equipment for this process was initially permitted in Air Permit 711-0066-X008 on March 10, 2021, for Presses No. 5 and 6 Along with RTO-3, which was subsequently incorporated into the Title V permit on December 27, 2021.

Emission Standards/Limitations

Opacity and PM

RTO-3 is subject to the state opacity standard.

The unit is also subject to the state allowable particulate limit for general industries. However, due to natural gas being the primary fuel of the process, almost no PM is generated.

Volatile Organic Compounds (VOC)

The combined VOC emissions from Presses No. 5 and No. 6 are limited to 39 tons per year in order to stay below the significant threshold for PSD. This limit was established in Air Permit 711-0066-X008 issued on March 10, 2021, which was subsequently incorporated into the Title V permit on December 27, 2021.

Hazardous Air Pollutants (HAPs)

The combined total-HAPs and individual HAP emissions from the entire facility are limited to 24.5 and 9.5 TPY in order to stay below the significant thresholds for Title V. These limits were established in Air Permit 711-0066-X001 issued on July 27, 2012, which was subsequently incorporated into the Title V permit on July 8, 2013.

Periodic Monitoring

Opacity and PM

No opacity monitoring/visual inspections are currently required due to the low PM emissions expected from the process. However, if any issues with PM from the facility are indicated, the Department will modify the permit to require monitoring/inspections.

Volatile Organic Compounds (VOC)

The 3-hour rolling average temperature of RTO-3 shall be maintained above the minimum temperature established by the most recent RTO efficiency performance test. During times when the RTO is operating above the established minimum temperature, VOC destruction efficiency (DRE) is assumed to be 95%. During times when the RTO is operating below the established minimum temperature, VOC DRE is assumed to be 0%, and the processes shall shut down after 15 minutes.

REPORTING REQUIREMENTS:

Emissions of VOC and HAP will be determined from RTO performance and material usage and will be submitted to the Department in quarterly reports.

PERMITTING FEES:

Major sources are subject to operating permit fees which charge the facility a yearly amount based on the actual emission rate of pollutants for the previous year.

FUGITIVE DUST:

All plant roads are paved or graveled. There are no raw materials, storage piles, products, etc. capable of generating fugitive dust at this facility. Therefore, additional specific requirements for fugitive dust are not necessary for this facility.

ENVIRONMENTAL JUSTICE:

An Environmental Justice analysis was performed utilizing EPA's EJSCREEN tool and the Council on Environmental Quality's (CEQ) Climate and Economic Justice screening tool (Justice 40). This permit is for an existing facility, and no modifications or increases in emissions will result from the issuance of this permit; therefore, it was determined that enhanced outreach is not necessary.

RECOMMENDATION

Based on the above analysis, I recommend that this facility's MSOP be renewed pending the 30-day public notice and EPA's 45-day review.

Christopher Nuckels
Chemical Branch
Air Division

April 19, 2023
Date

CTN/ctn