TECHNICAL REVIEW DOCUMENT
for
OPERATING PERMIT 95OPDE113
to be issued to:

Brite-Line Technologies, Inc.
Denver County
Source ID 0311526

Prepared by Ashley L. Kendall
December 12, 1997

I. Purpose:

This document will establish the basis for decisions made regarding the Applicable Requirements, Emission Factors, Monitoring Plan and Compliance Status of Emission Units covered within the Operating Permit proposed for this site. It is designed for reference during review of the proposed permit by the EPA and during Public Comment. The conclusions made in this report are based on information provided in the original application submittal of December 26, 1995, as well as a site visit and numerous discussions with the applicant.

II. Source Description:

This source is classified as a manufacturer of highway marking products which falls into the Standard Industrial Classification 3069 for fabricated rubber products. Processes include a tape coating line, thermo plastic batch mixing and bagging line, and testing equipment. The tape in the coating line is painted, covered with glass beads, oven dried, coated with glue and a release agent, oven dried again, rewound and slit to size. The mixing/bagging line mixes various dry resins and produces 50 pound bags of product.

The facility is located in northeast Denver within the metro non-attainment area for CO, PM_{10} and transitional for Ozone. This facility is within 100 km of a Class I area, Rocky Mountain National Park but there are no other states within 50 miles. The applicant certified that they are not a 112(r) source and are considered a minor source for New Source Review. The source is not currently subject to a MACT standard nor is one planned at the time of permit issuance. The facility has two construction permits, 93DE1318(mod.2) for the tape coating machine and 93DE1551(mod.1) for the thermo plastic mixer. Both of these permits are Final Approvals. Facility wide emissions are as follows:

Pollutant	Potential to Emit (TPY)	Actual Emissions (TPY)
VOC	34.5	8.84

PM	0.097	2.59X10-4
PM_{10}	0.097	2.59X10-4
HAPs	145	4.74

(Note: the HAPs consist mostly of Toluene)

Potential emissions for VOC and PM_{10} are as permitted in 93DE1318(mod.2) and 93DE1551(mod.1), HAPs emissions are as calculated in the Title V application. Actual emissions estimates are based on AIRS data updated as of October 1996. The source is currently reviewing alternative low-VOC and low-HAP materials as a means to prevent pollution and for future ISO certification.

III. Emission Sources:

The following sources are specifically regulated under terms and conditions of the Operating Permit for this Site:

<u>Unit P010</u> - Tape Coating Line, Custom Built by Brite-Line, Drip Painter, Glass Bead Dropper, (2) Natural Gas Fired Ovens, Hot Glue Applicator, Release Applicator

Discussion:

1. Applicable Requirements- This unit was installed and began operation in February of 1994. A current APEN is on file and Construction Permit #93DE1318 (mod. 2) provides applicable requirements for this process line: visible emissions shall not exceed twenty percent (20%) opacity, emissions of Volatile Organic Compounds are limited to 34.56 tons/year, a recordkeeping system shall be developed to demonstrate compliance, fugitive VOC sources shall be controlled by tight-fitting covers for open tanks, covered containers for solvent wiping cloths, proper disposal of dirty clean-up solvent (general Reg. 7 Requirements), a revised Air Pollutant Emission Notice shall be filed when a significant change in emissions occurs, as required by Regulation No.3, Part A, Section II.B. A revised APEN shall be submitted no later than 30 days before the five-year term expires.

Because Brite-Line has a sporadic annual production rate a short term limit will not be added to the permit. EPA guidance document, 'Limiting Potential to Emit in New Source Permitting, June 13, 1989' recognizes that in limited cases an annual limit based on a rolling 12 month total can be used for sources with "substantial and unpredictable annual variation in production".

2. Emission Factors - Emissions from this process line are produced as the VOCs in the coating are volatilized. A conservative estimate that 100% of the VOCs in the coating material are emitted is used for calculation purposes. The paints and solvents all have MSDS's, current as of December 1995, which provide VOCs by weight percent. This MSDS data shall be

updated as necessary to ensure that the emissions calculations remain accurate. The pollutant of concern is Volatile Organic Compounds (VOC).

HAP Emissions

The following emissions of hazardous air pollutants are not limited by construction permit #93DE1318 (mod. 2) but are APEN reportable and are part of the reason that this source is a Title V "Major" source. This information is listed to inform the operator of the Division's analysis of the specific compounds. This information is listed on the Division's emission inventory system.

CAS NO.	Hazardous Air Pollutant	Pounds/Year
108-88-3	Toluene	37,612.5
133-02-07	Xylene	8,762.5
110-54-3	Hexane	2,470.0
822-06-0	Hexamethylene 1,6-Diisocyanate	1,752.5

Note: Pollution prevention was discussed with the source and they were made aware that if they could reduce their potential HAP emissions, especially the Toluene emissions, below 25 TPY total or 10 TPY for any individual HAP, then they would fall out of the major source threshold for Title V permitting.

3. Monitoring Plan - Brite-Line has proposed to calculate emissions for fee purposes based on coating (paint and solvent) usage. They will be required to conduct the emission calculation on a rolling twelve month basis. This recordkeeping inventory system is currently in operation and will be used to show compliance with the Title V permit annual emissions limits. The specific spreadsheet used to record material consumption has been approved by the Division and is the only one which may be used to calculate emissions for compliance purposes. Due to the fact that the ratio of usage shows product formula the Division has approved request for confidentiality.

The fugitive VOC control practices are being used and will be covered by the general conditions in the Title V permit.

The Opacity standard of 20% will be demonstrated by a certification that the unit has used natural gas exclusively during the reporting period.

4. Compliance Status - A current APEN reporting criteria emissions is on file with the Division. This source is permitted by Construction Permit #93DE1318 (mod.2) and is currently in compliance with all permit terms. The source has also certified to being in compliance with all current requirements. A records search indicated no outstanding compliance issues for this source. Therefore, this unit is considered to be in compliance with all

current applicable requirements.

<u>Unit P020</u> - Thermo Plastic Mixer/Bagger, Custom Built by Brite-Line,

Discussion:

1. Applicable Requirements- This unit was installed and began operation in May of 1994. A current APEN is on file and Construction Permit #93DE1551 (mod. 1) provides applicable requirements for this process line: Visible emissions shall not exceed twenty percent (20%) opacity, maximum production of thermo-plastic mix not to exceed 50 tons per day or 13,000 tons per year, emissions of air pollutants shall not exceed 0.102 tons per year of PM and 0.097 tons per year of PM_{10}, control equipment shall be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions, a revised Air Pollutant Emission Notice shall be filed when a significant change in emissions occurs, as required by Regulation No. 3, Part A, Section II.B., a revised APEN shall be submitted no later than 30 days before the five-year term expires.

Short term limits of 0.785 lbs/day of PM and 0.75 lbs/day of PM_{10} have been added to the operating permit in order to be enforceable as a practical matter. These were arrived at by the following equation:

Emissions (lbs/day) = [EF(lbs/ton)][Daily Production (tons/day)][(1-.99)]

2. Emission Factors- Emissions from this unit are produced during the processing of materials. The pollutants of concern are Particulate Matter (PM) and Particulate Matter smaller than 10 microns (PM_{10}). The source submitted emissions based on emission factors of approximately 1.57 lbs PM per 1 ton of material handled and 1.5 lbs of PM_{10} per 1 ton of material handled. The emission factors come from the construction permits but the original reference is unknown. AP-42 (Jan. 1995) provides several emission factors for PM emitted from the handling of thermoplastics. These factors range from 0.8 lbs/ton to 3 lbs/ton, so the emission factors used are acceptable.

3. Monitoring Plan- Brite-Line has proposed to calculate emissions for fee purposes based on emission factors listed above. Compliance with baghouse maintenance shall be determined by daily visual checks and more detailed maintenance and/or pressure checks, at a minimum, on a monthy basis. The Opacity standard of 20% will be demonstrated by conducting monthly method 9 readings during full production.

4. Compliance Status - A current APEN reporting criteria emissions is on file with the Division for this unit. This source is permitted by Construction

Permit #93DE1551 (mod. 1) and is currently in compliance with all permit terms. The source has also certified to being in compliance with all current requirements. A records search indicated no outstanding compliance issues for this source. Therefore, this unit is considered to be in compliance with all current applicable requirements.

IV. Insignificant Activities

Non-commercial testing laboratory
Research and Development Pilot Coating Line (<10,000 lbs/year VOC)
Research and Development Thermo Plastic Melting Line
Chemical Storage Tanks (<500 gallons, 55 gallon drums of waste)
Drying Ovens (2), natural gas fired (<5mmBtu/hr)

V. Alternative Operating Scenarios

No alternative operating scenarios were requested.