DESCRIPTION OF PRODUCT SIMULATION DURING VOC COMPLIANCE TESTING

ATTACHMENT B

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Description of Production Simulation
During VOC Compliance Testing

The purpose of this attachment is to describe how ITD will generate VOC emissions using a simulated production for VOC compliance testing purposes. Simulating production is necessary to minimize the production expenses incurred by ITD during compliance testing. ITD has had to manufacture products it does not need in the past to meet permit requirements during compliance testing because the permit necessitates using a worst case VOC-containing coating. Furthermore, due to the wording of the required testing conditions in the current air permits, ITD continues to lower its permitted VOC loading rates into the incinerator from year to year because it cannot achieve or even approach 90% of the maximum VOC loading rates when under actual production.

The maximum design VOC loading rates are 475 lbs/hr for Line No. 1 and 446* lbs/hr for Line No. 2. Based on the most recent compliance tests conducted, the permitted VOC loading rates are only 275 and 353.5* lbs/hr respectively and ITD has had to prove on a daily basis that these reduced VOC loading rates are not being exceeded. ITD would like to stack test at or near the maximum design VOC loading rates so it can be permitted to operate at these rates so that the facility does not have to worry about exceeding much lower permitted VOC loading rates. (See not below)

ITD will utilize a 100% fresh or recycled solvent mixture containing the same VOC's utilized in the worst case coating BD 074 LA which contains 39.23 lbs VOC/gal of solids. As shown in the permit application, the composition in the coating is 42.5% MEK, 14.3% Toluene, 3.2% Ethyl Acetate, and 40% solids. A similar composition in a 100% solvent mixture is 71%MEK, 24% Toluene, and 5% Ethyl Acetate. A batch containing this solvent mixture will be prepared prior to stack testing Line Nos. 1 and 2. The solvent feed rate for Line No. 1 will be approximately 8 lbs/min (475 lbs/hr ÷ 60 min/hr) or 90% thereof during testing. Line No. 2 will be approximately 7.4* lbs/min (446* lbs/hr ÷ 60 min/hr) or 90% thereof. The facility has a K-flow pump whose flow rate can be adjusted and set during the compliance test. The K-Flow pump will be calibrated prior to the test and results of calibration will be submitted with the compliance test report.

Approximately 10% of the solvent mixture being pumped will be diverted to and evaporated into an air suction duct at the coating head area of each line and the remaining 90% or balance thereof will be evaporated within drying oven area of each line. We believe this type of solvent distribution is conservative for the purpose of demonstrating 100 % capture efficiency since most of the air emissions, when under actual production are generated within the drying oven which is fully enclosed. For the purpose of demonstrating 90% destruction efficiency, emissions from the coating head area and the drying oven are both ducted to the affected incinerator for each line so we believe the emissions distribution between the coating applicator and the drying oven does not matter for this purpose. We plan to use atomizing

'ermitting Note (6/24/02):
*Replacement of the incinerator (Administrative Permit Correction, No. 1030119-005-AV) amended the load rates for Line No. 2. See permit.

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nozzles to help evaporate the liquid solvent so that the emissions can be captured in the emissions ducts going to the affected incinerator.

A diagram showing the approximate locations of where the emissions will be introduced for each coating line is enclosed. A process rate statement specifying the actual solvent usage rates used and certifying that these procedures have been followed will be included in the compliance test report.

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