UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

AUG -8 1991

Mr. Gary A. Jones
Manager, Environmental Information
Graphic Arts Technical Foundation
4615 Forbes Avenue
Pittsburgh, Pennsylvania 15213

Dear Mr. Jones:

This is in response to our conversation on July 25, concerning the requirement by some state and local air pollution control agencies that the amount of volatile organic compounds (VOC's) content of UV cure inks be measured using the procedures contained in EPA Method 24.

Certainly, use of Reference Method 24 (RM-24) would cause to evaporate many and perhaps all of those monomers and oligomers that, when exposed to UV or EB radiation, would react to form solids. The results would indicate an artificially high VOC content. Used in this manner, RM-24 is not an appropriate method for measuring the VOC content of radiation cure materials. My recommendation for these type coatings is that the sample be prepared and weighed consistent with RM-24, exposed to radiation cure (perhaps piggy backed along with production materials), and then heated consistent with RM-24 conditions. Exposure to the normal cure conditions should permit the reactive chemistry to complete and the subsequent heating should remove any unreacted materials including the dilution solvents that are now being used with many radiation cure coatings.

Over the longer term, the Environmental Protection Agency will publish a reference method for determining the VOC content of radiation curable coatings. Our Technical Support Branch (Gil Wood (919) 541-5544) is responsible for this effort.

If you have any questions or require any additional information, please contact Ms. Vickie Boothe of my staff at (919) 541-0164.

Sincerely,

James C. Berry, Chief
Chemical Application Section
Chemicals and Petroleum Branch