



Project Summary

Evaluation of the Polyad[®] FB Air Purification and Solvent Recovery Process for Styrene Removal

Larry Felix, Randy Merritt, and Ashley Williamson

EPA's Control Technology Center initiated a project to evaluate the Polyad[®] fluidized-bed (FB) solvent recovery system for controlling styrene emissions from an operating shower stall/bathtub manufacturing plant. The Polyad[®] FB system employs macroporous polymer particles as an absorbent that continuously migrates from an absorption section to a desorption section where the particles are regenerated and the solvent is condensed and recovered. The Polyad[®] FB pilot unit was evaluated on a styrene-contaminated exhaust air stream from a gel coat spray booth at Eljer Manufacturing Company in Wilson, NC. Inlet and outlet styrene con-

centrations were measured on the Polyad[®] FB unit using Total Hydrocarbon Analyzers. The Polyad[®] FB unit displayed the capabilities of controlling greater than 95% of the styrene being emitted to the atmosphere. System capital cost and applicability to a facility similar to Eljer were also evaluated.

This Project Summary was developed by EPA's Air and Energy Engineering Research Laboratory, Research Triangle Park, NC, to announce key findings of the research project that is fully documented in a separate report of the same title (see Project Report ordering information at back).



L. Felix, R. Merritt, and A. Williamson are with Southern Research Institute, P.O. Box 55305, Birmingham, AL 35255-5305.

Bobby E. Daniel is the EPA Project Officer (see below).

The complete report, entitled "Evaluation of the Polyad® FB Air Purification and Solvent Recovery Process for Styrene Removal," (Order No. PB94-130317/AS;

Cost: \$27.00, subject to change) will be available only from:

National Technical Information Service

5285 Port Royal Road

Springfield, VA 22161

Telephone: 703-487-4650

The EPA Project Officer can be contacted at:

Air and Energy Engineering Research Laboratory

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