Cal/EPA
California Environmental Protection Agency

Air Resources Board
P.O. Box 2815
2020 L Street
Sacramento, CA
95812-2815

Pete Wilson
Governor

James M. Strock
Secretary for Environmental Protection

October 30, 1996

Mr. John Rumble
Vice President, Sales and Marketing
Catlow Inc.
2750 U.S. Route 40
Tipp City, Ohio 45371

96-28

Approval of Blackmer Model VRF Vapor Pump
As An Equivalent Replacement To The Blackmer VR 3/4 Vapor Pump

Dear Mr. Rumble:

The Blackmer Model VR-3/4 was originally certified on June 24, 1988 and is listed in California Air Resources Board (CARB) Executive Order G-70-118. The Blackmer Model VRF vapor pump is intended for use as a replacement to the VR-3/4 pump in the Amoco V-1 Phase II Vapor Recovery System.

The VRF vapor pump is a non-electric, liquid pressure driven, positive displacement vane pump. The VRF is smaller and lighter in weight than the VR-3/4 vapor pump and has a manifold which allows the VRF to be used as a direct replacement for the VR-3/4 pump in the dispenser without the need for extensive dispenser piping modifications.

The manifold incorporates a butterfly valve assembly in the vapor path. The two positions of the butterfly valve are to allow the VRF to be used with either standard coaxial or inverted coaxial systems. This approval letter certifies the VRF pump for use only in the standard coaxial mode. In the standard mode, the A/L ratio is the same as the certified Blackmer VR-3/4 vapor pump. Comparative bench testing of the VRF pump against the Model VR-3/4 vapor pump indicated equivalent A/L ratios.

I find that the use of the Blackmer Model VRF pump when installed in accordance with the manufacturer's instructions and the conditions listed in the original VR-3/4 pump approvals, will not adversely affect the performance of the Amoco Oil Company V-1 Bootless Nozzle Vapor Recovery System as stated in Executive Order G-70-118-AB. Therefore the Blackmer Model VRF vapor pump is approved as a equivalent replacement for the Blackmer Model VR 3/4 vapor pump.

Recycled Paper

If you have any questions or wish to discuss this, please call Paul Thalken at (916) 445-0383 or Laura McKinney and (916) 327-1525.

Sincerely,

James Morgester, Chief
Compliance Division

cc: Mr. Jim Johnston, Chairman,
CAPCOA Vapor Recovery Committee

Mr. Gary Hunter, Manager,
CARB Compliance Assistance Section

Mr. Greg Wood, P.E., Marketing/Engineering Manager
Blackmer