STATE OF CALIFORNIA
AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95812

PETE WILSON, Governor

March 24, 1995

Mr. Thomas A. Hanna
Design Engineer
Catlow Incorporated
2750 U.S. Route 40
Tipp City, Ohio 45371

#95-18

Dear Mr. Hanna:

Approval of the Catlow AVR200S Inverted Coaxial Breakaway

You requested California Air Resources Board (CARB) certification of the Catlow Incorporated Model AVR200S inverted coaxial breakaway assembly with vapor check valve on October 25, 1994. The Model AVR200S breakaway is intended for use with gasoline dispensing devices having vapor recovery capabilities. It is used between two hose assemblies to safeguard against excessive pull force on the hose assembly and dispenser.

The Model AVR200S breakaway is similar to the currently CARB certified Catlow AV2001 breakaway (Approval Letter #94-10). The adjustable finger coupling system of the AV2001 breakaway has been replaced with a system utilizing a stainless steel latch spring in the AVR200S unit. The coupling system is the only difference between the AVR200S and the AV2001. The vapor paths of both breakaways are assembled using the same parts and are identical in form, function and performance. Like the AV2001, the AVR200S breakaway has the ability to reconnect after separation without the use of a repair kit. Also like the AV2001, the AVR200S has an internal vapor check valve which closes the vapor path of the unit in the event of separation.

The Catlow AVR200S breakaway consists of an outer fluid carrying assembly and an inner vapor carrying assembly, each with an internal check valve. The outer diameter of the fluid carrying assembly is defined by a male and female spud, while the inner diameter is defined by male and female poppets. The male and female spuds are coupled together by a stainless steel latching spring. When the fitting and connecting hose assembly are subject to a predetermined pull force, not exceeding 300 pounds, the male plug separates from the female body, removing the force on the hose assembly and dispenser. When this occurs, the check valves prevent the escape of liquid and vapor from the hose line.

The AVR200S breakaway is intended for use with gasoline dispensing devices having vapor recovery capabilities and working pressures not exceeding 50 pounds per square inch. The breakaway shall be installed in

conformity with the manufacturer's instructions and all applicable codes and ordinances. The breakaway shall be installed on an inverted coaxial hose assembly, between the dispenser and the nozzle. As required by the California State Fire Marshal (CSFM), the listee's name, model number, Underwriters Laboratory (UL) mark, maximum separation force and the words "METRIC THREAD" or "M34 THREADS" shall be provided on the coupling body.

As required by the Air Resources Board certification procedures, you requested the approval of the Division of Occupational Safety and Health, the Office of the State Fire Marshal and the Department of Food and Agriculture, Division of Measurement Standards. The necessary approvals have been obtained from these agencies.

I find that the use of the Model AVR200S breakaway, when installed in accordance with the manufacturer's instructions and the conditions listed above, will not adversely affect the performance of vapor recovery systems on which it is installed. Therefore, the Catlow Incorporated Model AVR200S inverted coaxial breakaway assembly with vapor check valve is certified for use with the following Phase II vapor recovery systems:

Phase II System	Current Executive Order
Hasstech VCP 2/2A	G-70-7-AD
Gilbarco VaporVac	G-70-150-AB
Dresser Wayne WayneVac	G-70-153-AA
Tokheim MaxVac	G-70-154

Should you have any questions or need further assistance, please contact Mr. Basharat Iqbal at (916) 324-7343 or Ms. Laura Sullivan McKinney at (916) 327-1525.

Sincerely,

James J. Morgester, Chief
Compliance Division

cc: Mr. Kenneth Kunaniec, Chairman,
CAPCOA Vapor Recovery Committee

Mr. Gary Hunter, Manager,
CARB Compliance Assistance Section