California Environmental Protection Agency
AIR RESOURCES BOARD

Executive Order G-70-196

Certification of the
Saber Technologies, LLC SaberVac VR Phase II Vapor Recovery System

WHEREAS, the California Air Resources Board ("the Board" or "CARB") has established, pursuant to California Health and Safety Code sections 39600, 39601 and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during motor vehicle fueling operations (Phase II vapor recovery systems) in its "CP-201 Certification Procedure for Vapor Recovery Systems of Dispensing Facilities" (the "Certification Procedures") as last amended April 28,2000, incorporated by reference into Title 17, California Code of Regulations, Section 94011;

WHEREAS, the Board has established, pursuant to California Health and Safety Code sections 39600, 39601 and 41954, test procedures for determining the compliance of Phase II vapor recovery systems with emission standards in its "Certification and Test Procedures for Vapor Recovery Systems," CP-201.1 through CP-201.6 ("the Test Procedures") as incorporated by reference into Title 17, California Code of Regulations, Section 94011;

WHEREAS, W. Dwain Simpson of Saber Technologies, LLC. ("Saber"), has requested certification of the Husky 605104 Nozzle with the SaberVac vacuum assist vapor recovery system (SaberVac VR system) pursuant to the Certification Procedures and Test Procedures;

WHEREAS, the certification of the SaberVac VR system has been evaluated pursuant the Board's Certification Procedures;

WHEREAS, the Certification Procedures (CP-201) provide that the Executive Officer shall issue an order of certification if he or she determines that the vapor recovery system conforms to all of the applicable requirements set forth in the Certification Procedures; and

WHEREAS, I, Michael P. Kenny, Air Resources Board Executive Officer, find that the SaberVac VR system conforms with all the requirements set forth in the Certification Procedures, and results in a vapor recovery system which is at least 95 percent effective for attendant and/or self-serve use at gasoline service stations when used *as specified in Exhibits 1 and 2 and when used* in conjunction with a Phase I vapor recovery system which has been certified by the Board.

NOW, THEREFORE, IT IS HEREBY ORDERED that the SaberVac VR system when used with a CARB-certified Phase I system, as specified in Exhibits 1 and 2 of this Order, is certified to be at least 95 percent effective in attended and/or self-serve mode. **Compatibility of this system with the onboard vapor recovery systems (ORVR) systems was verified using *a CARB draft test procedure. The system may need further ORVR compatibility evaluation to show compatibility with ORVR requirements as approved by the Board on March 23, 2000.* Fugitive emissions, which may occur when the underground storage tanks are under positive pressure have not been quantified and were not included in the calculation of system effectiveness.** Exhibit 1 contains a list of the equipment certified for

use with the SaberVac VR System. Exhibit 2 contains installation and performance specifications for the system. Exhibit 3 contains a procedure for verifying dispensing rate.

IT IS FURTHER ORDERED that the dispensing rate for installations with the SaberVac VR System shall not exceed ten (10.0) gallons per minute at any nozzle. This is consistent with the flowrate limitation imposed by United States Environmental Protection Agency as specified in the Title 40, Code of Federal Regulations, Part 80, section 80.22. Dispensing rate shall be verified as specified in Exhibit 3.

IT IS FURTHER ORDERED that compliance with the certification requirements and rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the State Fire Marshal's Office, and the Division of Occupational Safety and Health of the Department of Industrial Relations is made a condition of this certification.

IT IS FURTHER ORDERED that the following requirements are made a condition of certification. The SaberVac VR System shall be installed only in facilities *that* are capable of demonstrating on-going compliance with the vapor integrity requirements *of TP-201.3*. The owner or operator of the installation shall conduct, and pass, a Static Pressure Decay test as specified in *TP-201.3*, no later than 60 days after startup and at least once in each twelve month period. The owner or operator of the installation shall conduct, and pass, an Air-to-Liquid Ratio test as specified in TP-201.5 no later than 60 days after startup and at least once in each twelve month period thereafter. The test results shall be made available to the local air pollution control or air quality management district upon request within fifteen calendar days after the tests are conducted, or within fifteen calendar days of the request. These results should be submitted in a district approved format. Alternative test procedures may be used if determined by the Executive Officer, in writing, to yield comparable results.

IT IS FURTHER ORDERED that the SaberVac VR system, as installed, shall demonstrate compliance with the procedures and performance standards the test installation was required to meet during certification testing. If, in the judgment of the Executive Officer, a significant fraction of installations fail to meet the specifications of this certification, or if a significant portion of the vehicle population is found to have configurations which significantly impair the system's collection efficiency, the certification itself may be subject to modification, suspension or revocation.

IT IS FURTHER ORDERED that the certified SaberVac VR system shall, at a minimum, be operated in accordance with the manufacturer's recommended maintenance intervals and shall use the manufacturer's recommended operation, installation, and maintenance procedures.

IT IS FURTHER ORDERED that the Husky Model 605104 nozzle which is approved for use with the SaberVac VR system shall be 100 percent performance checked at the factory, including checks of the integrity of the vapor and liquid path, as specified in Exhibit 2 of this Order, and of the proper functioning of all automatic shut-off mechanisms.

IT IS FURTHER ORDERED that each vapor pump shall be adjusted and 100 percent performance checked at the factory, including verification that the pump, upon installation, will perform within the air-to-liquid ratio range specified in Exhibit 2 of this Order.

IT IS FURTHER ORDERED that the certified SaberVac VR system shall be performance tested during installation for ability to dispense gasoline and collect vapors, in the presence of the station manager or other responsible individual. Saber Technologies shall provide, to the station owner, operator or designee, CARB-approved copies of the installation and maintenance manuals along with instructions in the proper use of the SaberVac VR system, its repair and maintenance schedule, and where system and/or component replacements can be

readily obtained, which are to be stored at the facility. Revisions to the manual are subject to approval by CARB.

IT IS FURTHER ORDERED that the SaberVac VR system shall, at a minimum, be operated in accordance with the manufacturer's recommended maintenance intervals and shall use the manufacturer's recommended operation, installation, and maintenance procedures.

IT IS FURTHER ORDERED that the certified SaberVac VR system shall be warranted by Saber Technologies, in writing, for at least one year, to the ultimate purchaser and each subsequent purchaser, that the vapor recovery system is designed, built and equipped so as to conform at the time of original installation or sale with the applicable regulations and is free from defects in materials and workmanship which would cause the vapor recovery system to fail to conform with applicable regulations. Saber Technologies shall provide copies of the manufacturer's warranty for the system to the station manager, owner or operator. All components shall be warranted to the ultimate purchaser as specified above for at least one year.

IT IS FURTHER ORDERED that any alteration of the equipment, parts, design, or operation of the systems certified hereby is prohibited, and is not compliant with this certification, unless such alteration has been approved by the Executive Officer or his/her designee.

IT IS FURTHER ORDERED that, upon the adoption of revised standards, an installed SaberVac VR system may continue to be used as provided in Certification Procedure CP-201, pursuant to California Health and Safety Code section 41956.1, which provides that whenever the Board revises performance or certification standards, any system or any system components certified under procedures in effect prior to the adoption of the revised standards and installed prior to the effective date of the revised standards may continue to be used in gasoline marketing operations for a period of four years after the effective date of the revised standard, provided that all necessary repair and replacement parts or components shall be certified.

Executed at Sacramento, California, this 30th day of December, 2000.

Signature on File
Michael P. Kenny
Executive Officer

Attachments

Executive Order G-70-196

Exhibit 1

SaberVac VR System Equipment List

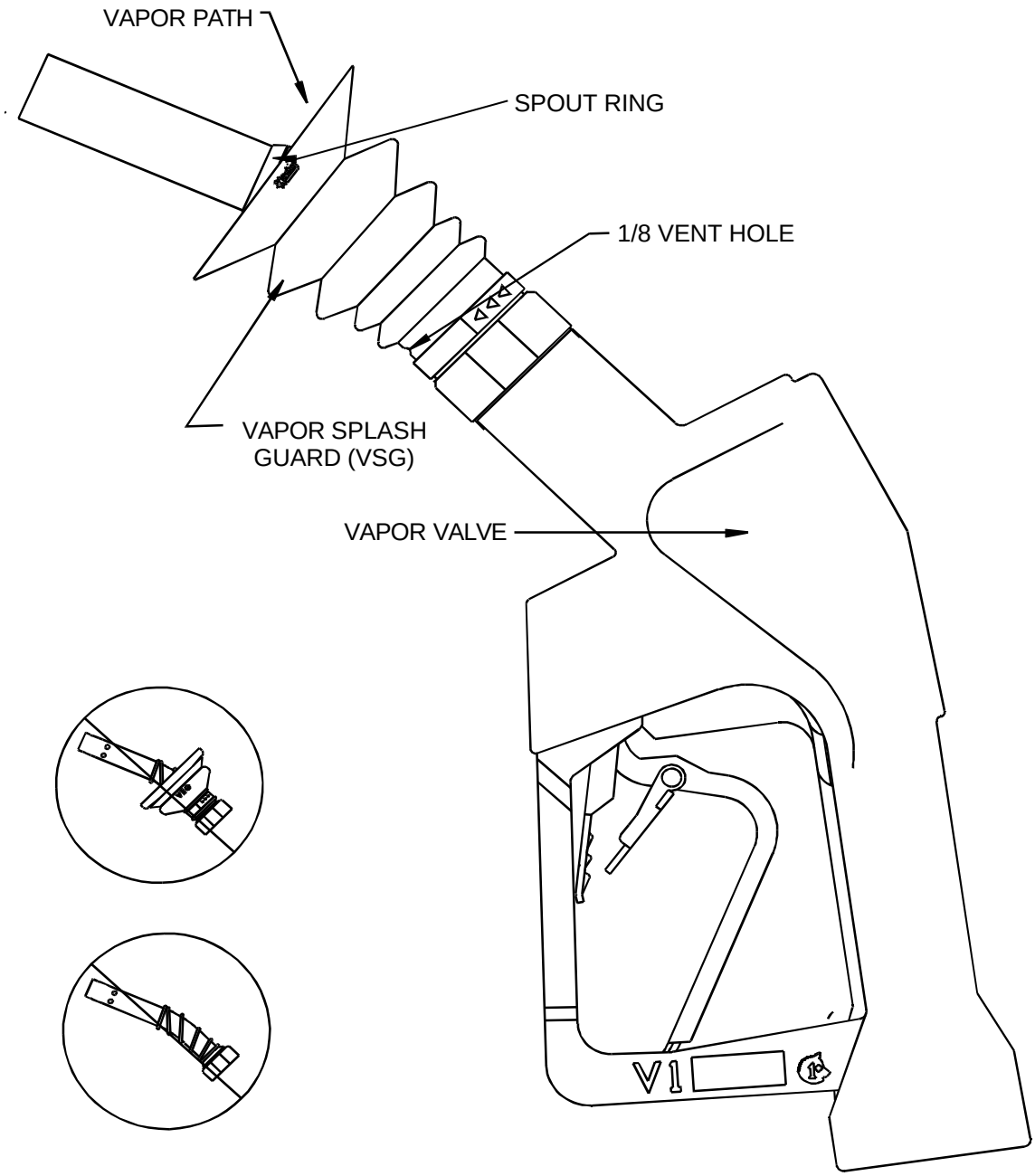
All system components are to be installed in accordance with manufacturers' instructions.

Component	Manufacturer / Model	State Fire Marshal Identification Number
Nozzle	Husky Model 605104 with Vapor Splash Guard (VSG) (Figure 1A)	005:021:006
Splash Guards	A separate fuel splash guard is not required with the SaberVac VR system, and would interfere with the operation of the SaberVac VR system if installed. The required Husky VSG serves as both fuel splash guard and vapor collection guard.	
Coaxial Hoses	Any CARB certified coaxial hose. Hose to be installed in accordance with manufacturers' instructions.	
Breakaway Coupling	Husky Model 3360 VR OR Any CARB certified standard coaxial breakaway that includes a vapor valve.	
Whip Hose	Any CARB certified standard coaxial. Hose to be installed in accordance with manufacturers' instructions.	
Vapor Pump	Saber **SaberVac** Model V01001 vapor pump. See Figure 1B for drawing of pump.	005:051:003
Dispenser	Any dispenser CARB certified for use with a balance system. See Figure 2A-1 through 2A-4 for hose configurations and pump locations	
Vapor Shear Valve	Any shear valve CARB certified for use with a balance system if required.	

Component	Manufacturer / Model	State Fire Marshal Identification Number
System Underground Vapor Piping		
	The system underground piping must meet the CARB requirements for a balance system for both back pressure and liquid drainage.	
Pressure/Vacuum Valves (settings as specified below)		
	Husky 4620 (slip-on)	005:021:015
	Husky 4885 (thread-on)	005:021:015
	OR	
	Any CARB-certified valve with the following pressure and vacuum settings, in inches water column (wc): Pressure: three plus or minus one-half inches (3.0 ± 0.5") water column. Vacuum: eight plus or minus two inches (8 ± 2") water column.	
Phase I Product Adaptors		
	Bravo B-70 B Swivel OPW 61SA-1000 Rotatable OPW 633LC Lock Clamp	
	OR	
	Any CARB-certified device which prevents loosening or overtightening of the Phase I product adaptor. (**Note: Installed adaptors which can not be prevented from loosening or overtightening may only be used until April 1, 2005.)**	
Phase I Vapor Adaptors		
	CNI Locking Clamp, Part # 434 Bravo Swivel Vapor Adapter, B-75 OPW 633LC Lock Clamp	
	OR	
	Any CARB-certified device which prevents loosening or overtightening of the Phase I vapor adaptor	
	(**Note: Installed adaptors which can not be prevented from loosening or overtightening may only be used until April 1, 2005.)**	

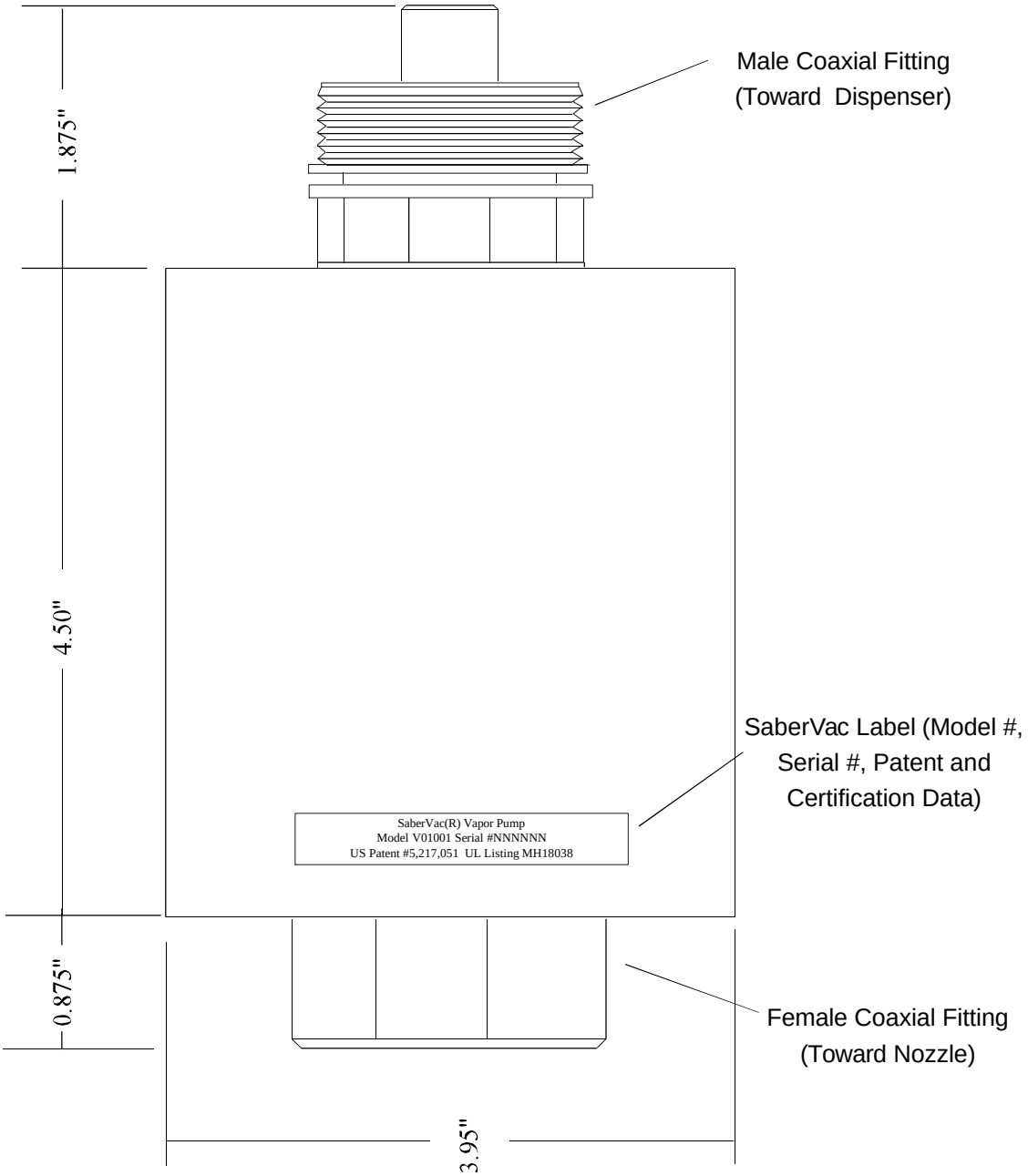
Executive Order G-70-196
Figure 1A

HUSKY V1 MODEL 605104
FOR THE SaberVac VR SYSTEM



Executive Order G-70-196
Figure 1B

SaberVac(R) Vapor Pump



Notes:

1. SaberVac vapor recovery pump (Models V01001) may be installed in any orientation.
2. For existing installations, SaberVac is installed directly onto dispenser outlet casting or on solid elbow fitting installed in outlet casting.
3. For new installations, SaberVac may be installed within Dispenser housing, with access for replacement/maintenance.

Executive Order G-70-196

Exhibit 2

Specifications for the SaberVac VR Phase II Vapor Recovery System

Figure 2A1 – 2A4 depict the pump location, dispenser and hose configuration possibilities for the SaberVac VR system with the SaberVac Model V01001 pump installed outside of the dispenser. The SaberVac Model V01001 pump may also be installed inside the dispenser housing just before the dispenser outlet fitting. Figure 2B provides instructions for conducting air-to-liquid ratio testing with the Husky 605104 nozzle.

Nozzle

1. Husky Model 605104 nozzle has a solid spout and recovers the vapor through the vapor splash guard (VSG). The vapor splash guard (VSG) has a 1/8" vapor bleed hole. A Vapor Splash Guard (VSG) shall be installed on the Husky Model 605104 nozzle at the base of the spout, as shown in Figure 1A.

   Any Husky Model 605104 with a VSG which is missing, or which is damaged such that at least a one and one-half (1.5) inch slit has developed, or which has cumulative damage equivalent to at least a 1.5 inch slit, is defective and shall be immediately removed from service. Any Husky 605104 nozzle which is damaged such that at least a three-sixteenth (3/16) inch hole has developed, or which has the cumulative damage equivalent to at least a 3/16 inch hole, is defective and shall be immediately removed from service.

   Any Husky 605104 nozzle, when properly latched into a vehicle fillpipe meeting the CARB standard, where the VSG flange portion does not make contact with or cover the entire fillpipe opening is defective and shall be immediately removed from service.

2. The nozzles shall have an integral vapor valves which prevent the loss of vapor from the underground storage tanks and ensure proper operation of the system.

3. Nozzles shall be 100 percent performance checked at the factory, including checks of all shutoff mechanisms and of the integrity of the vapor path. The maximum allowable leak rate for the nozzle shall not exceed the following:

   0.038 CFH at a pressure of two inches water column (2" wc).

Coaxial Hose

1. The hoses shall be installed in conformance with the specifications contained in the latest revision of G-70-52 for those hose configurations as specified in Exhibits 2A-1 through 2A-4 of this executive order.

Dispensing Rate

1. The dispensing rate for installations of the SaberVac VR system shall not exceed 10.0 gallons per minute. This shall be determined as specified in Exhibit 3.

Breakaway Couplings

1. Breakaway couplings are optional but, if installed, only **CARB-certified breakaway couplings which close the vapor path upon separation may be used.**

Pressure/Vacuum Valves for Storage Tank Vents

1. A pressure/vacuum (P/V) valve shall be installed on each tank vent. Vent lines may be manifolded to minimize the number of P/V valves and potential leak sources, provided the manifold is installed at a height not less than 12 feet above the driveway surface used for Phase I tank truck filling operations. At least one P/V valve shall be installed on manifolded vents. If two P/V valves are desired, they shall be installed in parallel, so that each can serve as a backup for the other if one should fail to open properly. The P/V valve shall be a CARB-certified valve as specified in Exhibit 1. The outlets shall vent upward and be located to eliminate the possibility of vapor accumulating or traveling to a source of ignition or entering adjacent buildings.

2. The P/V valve is designed to open at a pressure of approximately three inches water column (3" wc). Storage tank pressure which exceeds 3" wc for more than a short time may indicate a malfunctioning pressure/vacuum vent valve.

SaberVac VR System

1. The A/L ratio of the system measured at a flowrate between six and ten gallons per minute (6.0 - 10.0 gpm), shall be within the values listed in the following table. Any fueling point not capable of demonstrating compliance with this performance standard shall be deemed defective and removed from service. Alternative test procedures may be used if they are determined by the Executive Officer, in writing, to yield comparable results. The Husky 6051 models require a special adapter to conduct A/L ratio testing. The site is required to maintain the Husky V1 605104 adapter on site and available for A/L testing at all times.

   Limits of Measured Values of A/L between 6.0 to 10.0 gpm fuel flow rate:

Minimum Measured value of A/L	0.85
Maximum Measured value of A/L	1.05

   Note: The SaberVac VR system is an assisted balance system and the use of the standard A/L procedure to evaluate the performance of the total SaberVac VR system is thus not valid, just as it is not valid for other balance systems. The use of the A/L adapter prevents the system from being tested in true balance-like operational mode. No seal can be made with the A/L tank during this test, and the effective pressure at the nozzle vapor inlet is always slightly less than atmospheric, due to the drag of the A/L vapor flow meter.

   In the SaberVac VR system, A/L measurements are used to determine that “balance” system back pressure is within limits and that the SaberVac Model V01001 pumps are operating within the manufacturer’s specification. The A/L procedure is used to determine that the SaberVac VR system is operating properly under fixed, defined, conditions for each measurement. This can be accomplished most easily by conducting the A/L test at fixed pressure conditions at both the nozzle and the UST, preferably with both the nozzle and UST at atmospheric pressure.

To insure that the SaberVac system is operating within designed operating parameters, the fuel dispensed into the A/L test tank should only be returned to the UST after all A/L tests are concluded. If this is not possible due to the need to do a large number of A/L tests, the ARB has approved of the following procedures:

a. When the A/L test tank must be emptied, the vapor poppet on the UST shall be opened during the return of the fuel to the UST. A stand-pipe of about 6 ft tall shall be used to allow venting of the displaced vapors from the UST above ground level during the dumping of the fuel. After fuel dumping, the vapor valve poppet shall be closed.

b. Alternatively, the A/L test tank may be equipped with a vapor return hose (like a Phase I delivery tank truck), allowing the displaced vapors in the UST to be returned to the A/L test tank.

Both procedures above provide for consistent measurements of the A/L values without abnormally changing the pressure drop across the total system during A/L tests.

Instructions on how to conduct A/L testing with the Husky 605104 nozzle are listed in Figure 2B.

2. Saber **SaberVac** Model V01001 vapor pump. A fluid driven turbine magnetically coupled to a radial flow fan to pull the vapors from the nozzle vapor splash guard and return them to the UST through the hoses and piping. The pump is equipped with male 1 7/8 inch - 12 thread coax connection on the dispenser fuel outlet end and a female connection on the opposite end. The pump may be installed directly into the dispenser outlet fitting, or it may be equipped with alternate threaded connections to allow it to be installed at the end of a short whip hose or inside the dispenser housing in new installations.

3. In the case that the SaberVac VR system is operating at an Underground Storage Tank (UST) gauge pressure greater than 2" wc over an extended period the system's operation will be deemed defective and the whole station will be considered out of order.

Note: If a fuel drop has occurred within 2 hours of the pressure measurement (or the station was closed during the fuel drop and fuel dispensing did not resume within 2 hours of the pressure measurement) and the UST pressure exceeds 2" WC, the station shall not be considered out of order.

Vapor Recovery Piping Configurations

1. The maximum allowable pressure drop through the system shall never exceed one/half inch (0.5") water column at 60 SCFH. The pressure drop shall be measured from the dispenser riser to the UST with pressure/vacuum valves installed and with the poppeted Phase I vapor connection open.

Note: The A/L test may be used to verify proper operation of the system, in lieu of measuring the pressure drop through the lines, by performing the A/L test when the UST is vented to atmospheric pressure, provided that two gallons of product is introduced into the system at the termination of the vapor return lines, prior to the test.

2. All vapor return and vent lines shall slope a minimum of 1/8 inch per foot. A slope of 1/4 inch or more per foot is recommended wherever feasible. The dispenser shall be connected to the riser with either flexible or rigid material which is listed for use with gasoline. Clamps shall be used to secure the flexible lines. The dispenser-to-riser

connection shall be installed so that any liquid in the lines will drain toward the UST. The internal diameter of the connector, including all fittings, shall be not less than three-fourths inch (3/4").

3. All vapor return and vent piping shall be installed in accordance with the manufacturer's instructions and all applicable regulations.

4. No product shall be dispensed from any fueling point associated with a vapor line which is disconnected and open to the atmosphere. If vapor lines are manifolded, this includes all fueling points in the facility. Dispensing of product from any fueling point associated with a disconnected vapor line is considered to be a defect.

Phase I System

WARNING: Phase I fill caps should be opened with caution because the storage tank may be under pressure.

1. The Phase I system shall be a CARB-certified system which is in good working order and which demonstrates compliance with the static pressure decay test criteria of TP-201.3. Coaxial Phase I systems shall not be used with new installations of the system. **Replacement of storage tanks at existing facilities, or modifications which cause the installation of new or replacement Phase I vapor recovery equipment, are considered new installations with regard to this prohibition**. Districts may grant an exception to this prohibition for coaxial Phase I systems CARB-certified after January 1, 1994, as compatible for use with Phase II systems which require pressure/vacuum vent valves. Where installation of the SaberVac VR system is made by retrofitting previously installed equipment, local districts may elect to allow existing coaxial Phase I systems to remain in use for a specifically identified period of time provided the following conditions are met:

    - the existing coaxial Phase I system is a poppeted, CARB-certified system capable of demonstrating compliance with the static pressure decay test as specified above; and

    - installation of the Phase II system requires no modification of the UST(s) and/or connections.

2. Spill containment manholes which have drain valves shall demonstrate compliance with the static pressure decay criteria with the drain valves installed as in normal operation. Manholes with cover-actuated drain valves shall not be used in new installations (as defined above). Manholes with cover-actuated drain valves may remain in use in facilities where installation of the SaberVac VR system does not require modification of the tank fittings provided the facility demonstrates compliance with static pressure decay test criteria both with the cover in place and with the cover removed.

3. The Phase I vapor recovery system shall be operated during product deliveries so as to minimize the loss of vapors from the facility storage tank which may be under pressure. Provided it is not in conflict with established safety procedures, this shall be accomplished in the following manner:

    - **the Phase I vapor return hose is connected to the delivery tank and to the delivery elbow before the elbow is connected to the facility storage tank;**

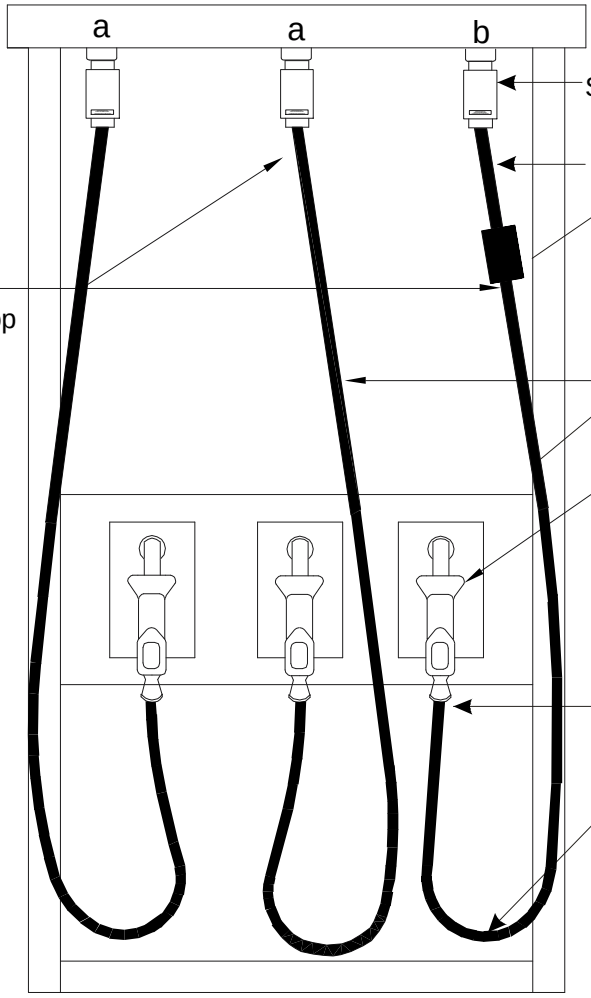
- **the delivery tank is opened only after all vapor connections have been made, and is closed before disconnection of any vapor return hoses; and**

- **the vapor return hose is disconnected from the facility storage tank before it is disconnected from the delivery tank.**

4. Phase I deliveries shall be accomplished so as to ensure that there is at least one vapor connection between the cargo tank compartment headspace and the storage tank associated with the product delivery. There shall be no more than two product hoses used with one vapor hose connected, and no more than three product hoses used with two vapor hoses connected.

5. Storage tank vent pipes, and fill and vapor and manhole tops, shall be maintained *in* any color which minimizes solar gain and has a reflective effectiveness of 55% or greater. Reflectivity shall be determined by visual comparison of the paint with paint color cards obtained from a paint manufacturer who uses the "Master Pallet Notation" to specify the paint color (i.e. 58YY *88*/180 where the number in italics is the paint reflectivity). Examples of colors having a reflective effectiveness of 55% or greater include, but not limited to: yellow, light gray, aluminum, tan, red iron oxide, cream or pale blue, light green, glossy gray, light blue, light pink, light cream, white, silver, beige, tin plate and mirrored finish.**. Manhole covers which are color coded for product identification are exempted from this requirement**.

Executive Order G-70-196
Figure 2A-1
High-Hang Coaxial Hose Configuration With Liquid Removal System For New and Existing Installations (Single Hose Multi-Product Dispensers included)

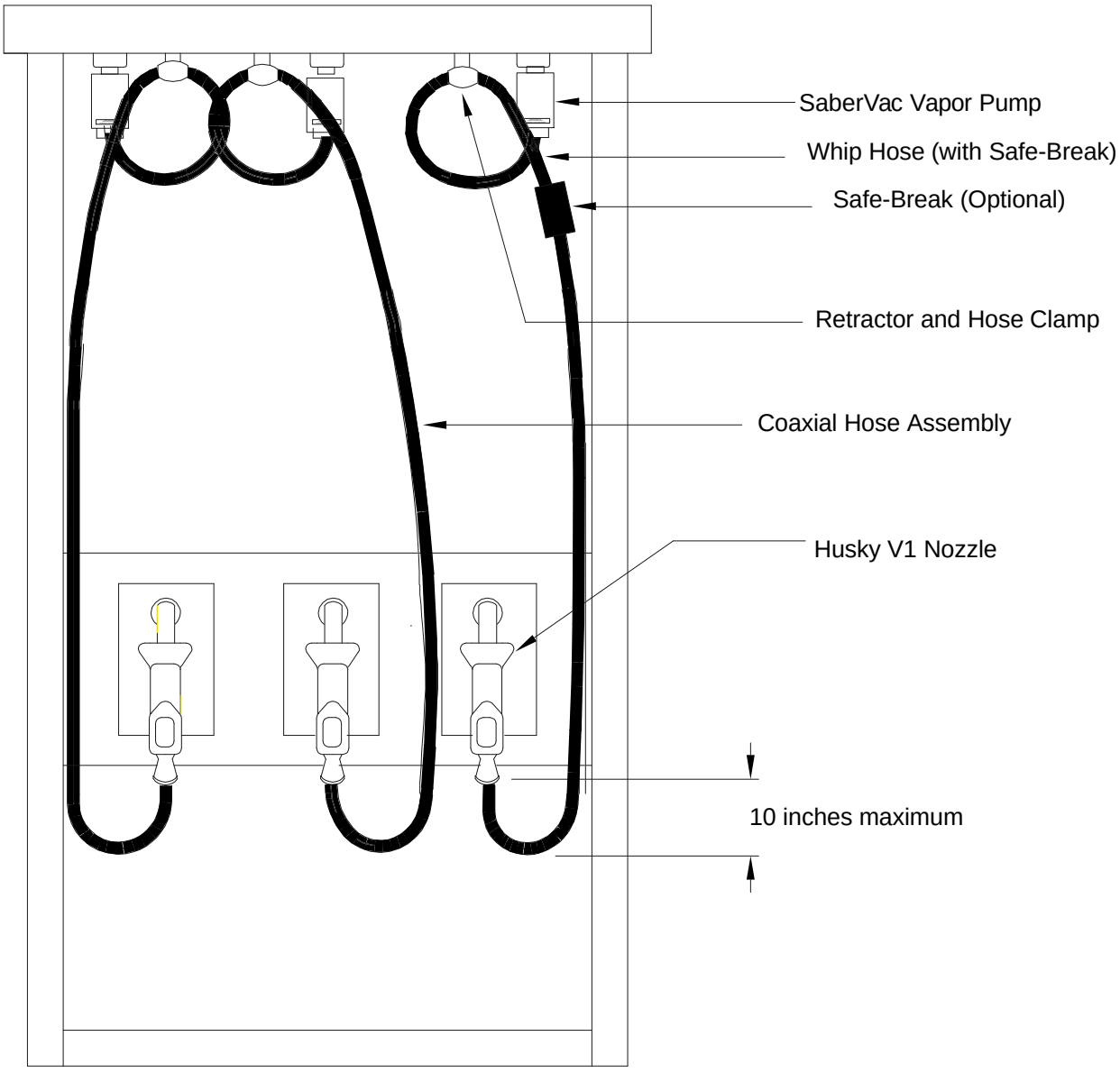


Notes:

1. Use 1 inch or larger inside diameter galvanized pipe for riser.
2. The maximum length of the hose assembly is 10-1/2 feet.
3. An ARB certified liquid removal system must be installed and maintained according to the manufacturer's specifications.
4. A flow limiter is required on all dispensers that have a maximum flowrate in excess of 10gpm. A flow limiter may be required on all gasoline dispensers at the option of the local air pollution control district.
5. The hose may not touch the island or the ground when not in use. In the case of a dogbone island where the wider island ends protect the hose from damage by vehicle tires, the hose may touch the verticle face of the dogbone island at the option of the local airpollution control district.

Executive Order G-70-196

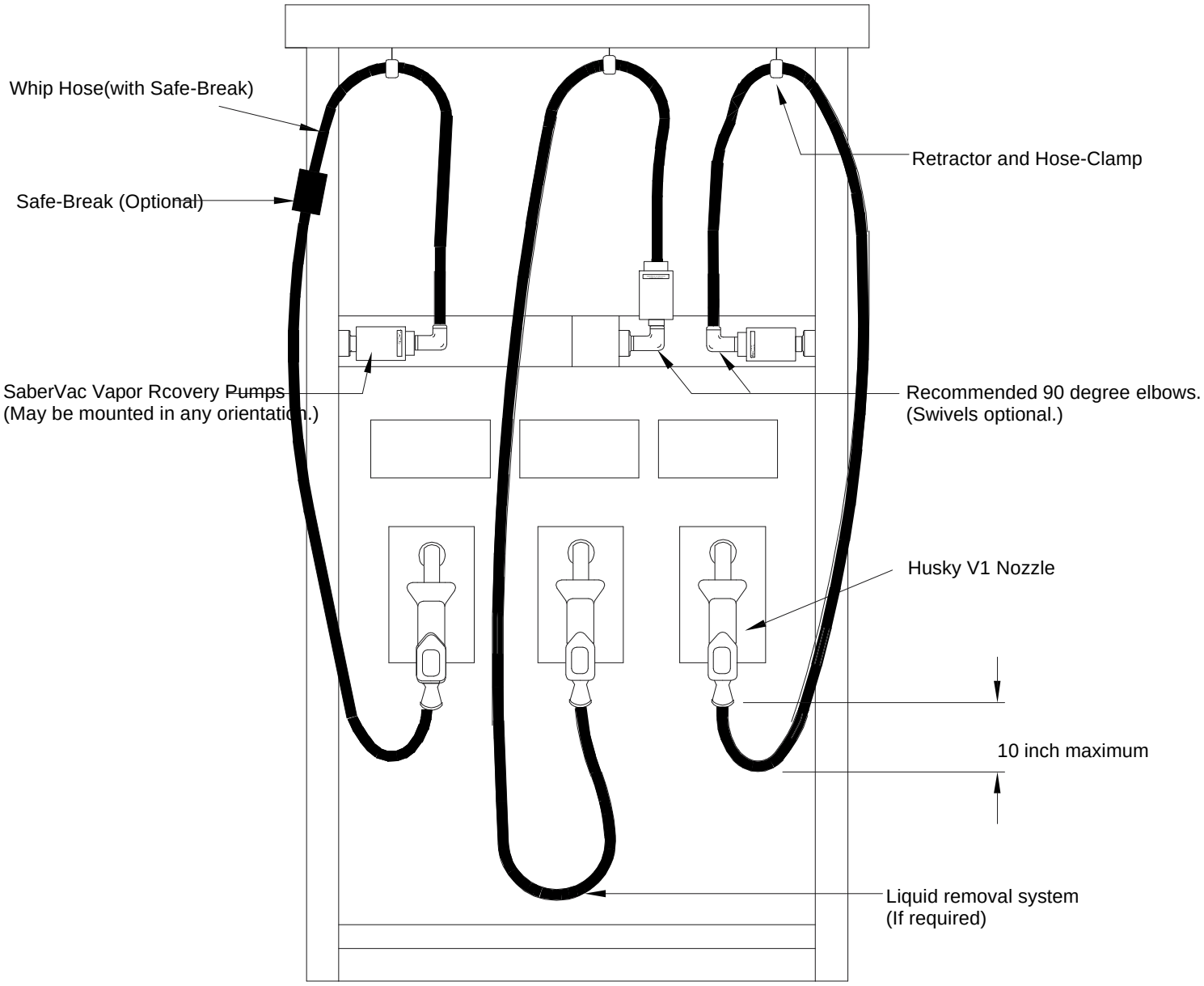
Figure 2A-2
High-Hang Coaxial Hose Configuration
With Retractor
For New and Existing or New Installations
(Single Hose/Multi-Product Dispensers Included)



Notes:

1. Use 1 inch or larger inside diameter galvanized pipe for riser.
2. The maximum length of the hose assembly is 10-1/2 feet.
3. If hose loop is greater than 10 inches, an ARB certified liquid removal system must be installed and maintained according to the manufacturer's specifications.
4. A flow limiter is required on all dispensers that have a maximum flowrate in excess of 10gpm. A flow limiter may be required on all gasoline dispensers at the option of the local air pollution control district.
5. If a Safe-Break is used,the whip hose must be installed so that the safe-break is downstream of the retractor hose clamp.
6. The hose may not touch the island or the ground when not in use. In the case of a dogbone island where the wider island ends protect the hose from damage by vehicle tires, the hose may touch the verticle face of the dogbone island at the option of the local airpollution control district.
7. Retractor must retract coaxial hose to top of dispensers when not in use.
8. Tension on hose clamp must not be excess of that required to return hose to top of dispenser.

Executive Order G-70-196
Figure 2A-3
High-Retractor Dispenser
New and Existing Installations
(Single Hose/Multi-Product Dispensers included)

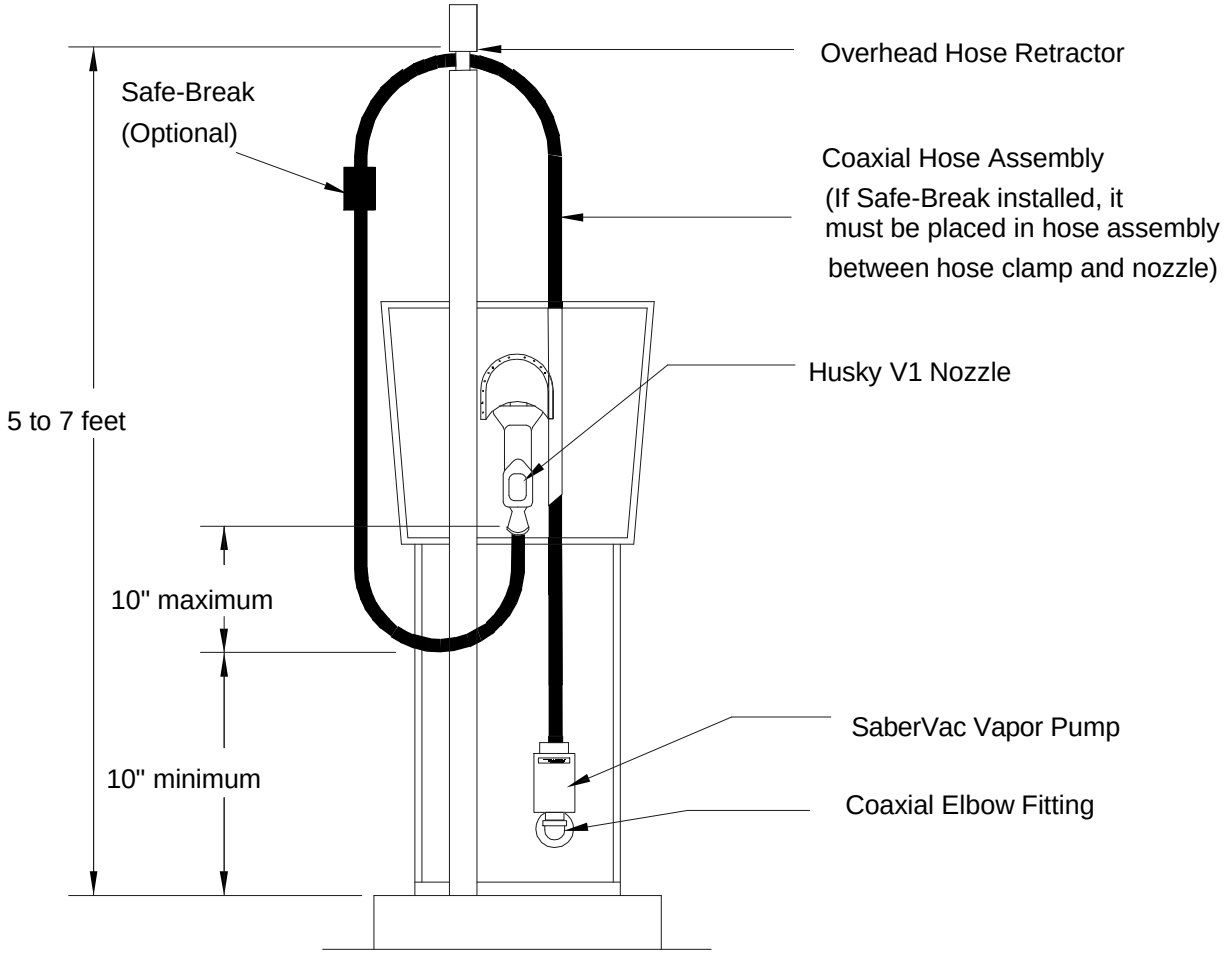


Notes:

1. Use 1 inch or larger inside diameter galvanized pipe for riser.
2. The maximum length of the hose assembly is 10-1/2 feet.
3. If hose loop is greater than 10 inches, an ARB certified liquid removal system must be installed and maintained according to the manufacturer's specifications.
4. A flow limiter is required on all dispensers that have a maximum flowrate in excess of 10 gpm. A flow limiter may be required on all gasoline dispensers at the option of the local air pollution control district.
5. If a safe-break is used, the whip hose must be installed such that the safe-break is downstream of the retractor hose clamp.
6. The hose may not touch the island or the ground when not in use. In the case of a dogbone island where the wider island ends protect the hose from damage by vehicle tires, the hose may touch the vertical face of the dogbone island at the option of the local air pollution control district.
7. Retractor must retract coaxial hose to top of dispenser when not in use.
8. Tension on hose clamp must not be in excess of that required to return hose to top of dispenser.

Executive Order G-70-196
Figure 2A-4

Coaxial Hose Side-Mount
High-Retractor Configuration
For New and Existing Installations

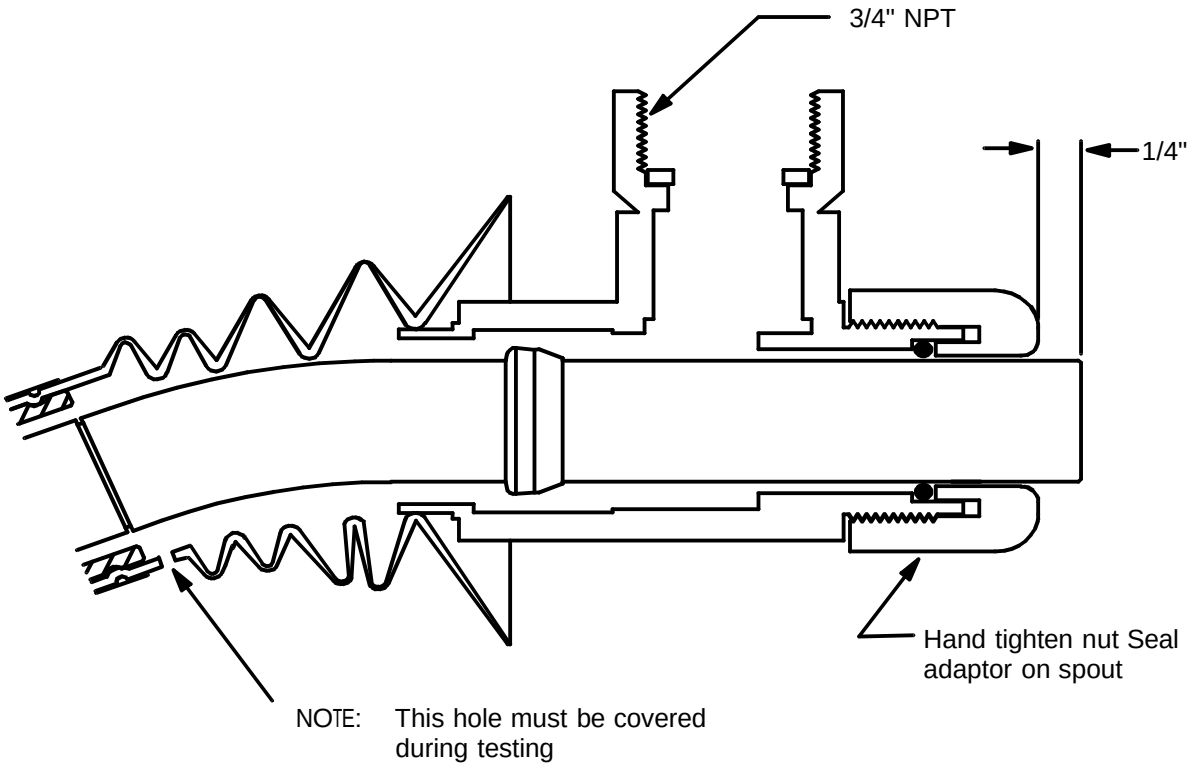


Notes:

1. Use 1 inch or larger inside diameter galvanized pipe for riser.
2. The maximum length of the hose assembly is 10-1/2 feet.
3. If hose loop is greater than 10 inches, an ARB certified liquid removal system must be installed and maintained according to the manufacturer's specifications.
4. A flow limiter is required on all dispensers that have a maximum flowrate In excess of 10 gpm. A flow limiter may be required on all gasoline dispensers At the option of the local air pollution control district.
5. If a safe-break is used, it must be placed in hose assembly between retractor hose clamp and nozzle.
6. The hose may not touch the island or the ground when not in use.
7. Retractor must retract coaxial hose to top of support assembly when not in use.
8. Tension on hose clamp must not be in excess of that required to return hose to top of support assembly.

Executive Order G-70-196
Figure 2B

Instruction For Use of the A/l Adaptor



Instructions for use of the 4360 A/L Adaptor

1) Inspect the Vapor Splash Guard (VSG) and spout for damage. Any tears or extra holes in the VSG will reduce the accuracy of the test.

2) Slide the A/L adaptor over the spout such that 1/4" of the spout is exposed past the nut.

3) Hand tighten the nut. This will seal the A/L adaptor to the spout.

4) Pull the VSG up over the smallest step on the A/L adaptor. This will seal the VSG to the adaptor.

5) Using a piece of tape, seal the 1/8" hole in the cuff of the VSG.

EXECUTIVE ORDER G-70-196

EXHIBIT 3

TEN GALLON PER MINUTE LIMITATION
COMPLIANCE VERIFICATION PROCEDURE

Compliance with the 10 gallon per minute flowrate limitation shall be determined with the following methodology. It is recommended that the maximum dispensing rate through each nozzle/hose assembly be verified. Maximum dispensing rates are achieved with no other dispensing occurring from the same submersible turbine pump (STP). Dispensing rates determined while conducting TP-201.5 are acceptable for verifying compliance with the 10 gallon per minute flowrate limitation.

1) The facility uses identical models of hoses, nozzles, and breakaways:

Dispense gas into a vehicle or approved container. Dispensing shall be conducted in the "hand-held, wide-open" mode. Using a stopwatch accurate to at least 0.2 seconds, begin timing the dispensing rate after at least one gallon has been dispensed. This one gallon buffer is necessary due to the "slow-start" nature of some dispensers. Determine the time required to dispense 2, 3, 4, or 5 gallons of gasoline. The facility shall be deemed in compliance with the 10 gallon per minute limitations if the elapsed time meets, or exceeds, the times shown in Table 1. If the dispensing rate exceeds the allowable limit, a CARB-certified flow limiting device shall be installed.

2) The facility uses different models of hoses, nozzles, or breakaways

Due to potential differences in pressure drops through the various components, each of the nozzle/hose assemblies shall be tested for maximum dispensing rates. Using the same criteria as above, determine the maximum dispensing rate through each nozzle/hose assembly. If the maximum dispensing rate exceeds the 10 gpm limit, a CARB-certified flow limiting device shall be installed.

Table 1
Verification of 10 gpm

Product Dispensed, gallons	Minimum Allowable Time, seconds
2.0	11.8
3.0	17.7
4.0	23.6
5.0	29.5

Note: The times have been corrected to allow for the accuracy of the measurement.