



Jeremiah W. (Jay) Nixon, Governor • Mark N. Templeton, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

JUN 18 2009

Mr. Russ Haecker
Product Manager, Dispensers
Dresser Wayne, Dresser Inc.
3814 Jarrett Way
Austin, Texas 78728

APPROVAL LETTER 99-04/07A

Dear Mr. Haecker:

This letter is to inform you and Dresser Wayne, of the Missouri Department of Natural Resources approval of the Dresser Wayne 4/Vista dispenser, for use in Missouri Stage II balance, vapor recovery required gasoline dispensing facilities.

Dresser Wayne requested approval of their 4/Vista dispensers at the TRC meeting on April 2, 2009. You and Dresser Wayne have assured us that the vapor piping and nozzle pockets of the 4/Vista series dispensers are the same as the MOPETP previously approved 3/Vista dispensers (see Attachment A for picture comparing the new and old dispensers and Attachment B - E for a copy of the CARB Letter, Approval Letters, 99-04, and 99-07, 0002-001-99). The only difference between the 4/Vista and 3/Vista series are the user interface panel (Bezel) and there are no changes to the fuel delivery system, vapor recovery components or vapor recovery control electronics, the TRC determined that the 4/Vista should be approved with the restrictions listed below. Since the number before the /V indicated only changes to the user interface and not to the fuel delivery system, vapor recovery components or vapor control electronics, the approval will be for any model number before the /V.

The CARB Letter dated December 18, 2008, and can be found in Attachment B.

The Wayne Dresser 4/Vista dispenser series should be approved with the following restrictions:

1. Only the single hose or single hose plus one (non-gasoline hose) are approved. The following seven models should be approved with x/
 - a. x/V390/U
 - b. x/V490/U

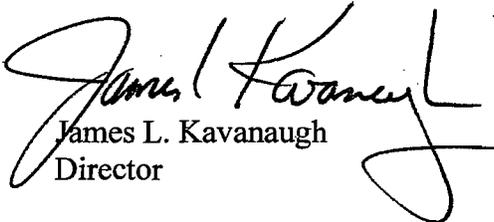
Mr. Russ Haecker
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- c. x/V585
 - d. x/V595/U
 - e. x/V590/U
 - f. x/580
 - g. x/V595
-
2. The dispenser must be installed and maintained according to the manufactures installation and maintenance instructions.
 3. If the x/Vista is used with the OPW 11VF vapor recovery nozzle, the full modification kit for the nozzle pocket (P/N 928942M-kit) must be installed.
 4. The dispensers must meet all requirements listed in MOPETP Approvals (0002-001-99, 99-04, 99-07).
 5. The dispensers must meet all of the testing requirements outlined in the most recent CARB certifications and MOPETP approvals.

Thank you for your cooperation in the MOPETP process. If you should have any questions about this approval, please contact Mr. Bud Pratt at the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, or by telephone at (573) 751-4817.

Sincerely

AIR POLLUTION CONTROL PROGRAM



James L. Kavanaugh
Director

JLK:bpt

Enclosures

c: Vapor Recovery

Attachment A



4/V590/U – 3 Product Blender + 4th Product



3/V390 – 3 Product Non-Blending

All Stagell systems are identical. No hydraulic or VR tubing has changes. Vapor barrier is located in the same position. Only the bezel design and configuration has changed.

Attachment B



Linda S. Adams
Secretary for
Environmental Protection

Air Resources Board

Mary D. Nichols, Chairman
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov



Arnold Schwarzenegger
Governor

December 18, 2008

Mr. Russ Haecker
Product Manager, Dispensers
Dresser Wayne
3814 Jarrett Way
Austin, Texas 78728

Dear Mr. Haecker:

Thank you for your letter dated December 1, 2008, informing the California Air Resources Board (ARB) of product enhancements to the electronic cabinet and user interface panel (or bezel) of the Dresser Wayne 3/Vista series dispenser. The dispenser product line will be renamed to the new 4/Vista series dispenser to include these product enhancements. Your letter stated that no changes have been made to the fuel delivery system, vapor recovery components, or vapor recovery control electronics. In addition, you provided pictures of the currently certified 3/Vista dispenser product line and requested 4/Vista dispenser product line which shows that no changes have been made to the vapor recovery piping configuration.

ARB staff has reviewed the information you submitted and determined that no changes have been made to the vapor recovery system and thus these changes will not affect the performance of the vapor recovery system. ARB has also determined that the current listing of the Vista series dispenser in the Franklin Fueling Systems Healy Phase II Enhanced Vapor Recovery (EVR) System Executive Orders (VR-201 series and VR-202 series) allows for the 4/Vista designation because it states that the number before the "I" can be any number. Based on these findings, ARB has determined that changes to any Executive Order or approval letter to allow the use of the 4/Vista dispenser is not required.

If you have questions, please contact either Paul Marzilli at (916) 445-7431 or email at pmarzill@arb.ca.gov, or Pat Bennett at (916) 322-8959 or email at pbennett@arb.ca.gov.

Sincerely,


William V. Loscutoff, Chief
Monitoring and Laboratory Division

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

Printed on Recycled Paper

Attachment C

Mr. Scott Negley
Product Manager, Dispensers
Wayne Dresser Industries
P. O. Box 1859
Salisbury, MD 21802-1859

APPROVAL LETTER 99-04

Dear Mr. Negley:

This is to inform you of the approval of the Balance Stage II Vapor Recovery dispensers which your company submitted for MOPETP testing and approval. These dispensers are the Wayne Vista 390, V390U D4 GQUY (vapor equipped/vapor ready models). The MOPETP testing took place at the Mobil Mart, 5840 South Lindbergh, St. Louis, Missouri.

The dispensers must be manufactured, sold, and installed as tested at the MOPETP site. The dispenser must be installed such that there are no constrictions in the connections between the dispenser vapor piping and the underground piping. It is preferred that the dispensers are installed with all vapor piping preinstalled by the manufacturer (GQY). However, vapor ready systems (GQUY) may be installed **IF** all vapor piping and connections installed by the contractor are the same as those used by the manufacturer.

It is the responsibility of the contractor to assure that the proper vapor piping and other components are used in installing the dispenser. It is the responsibility of the manufacturer to make clear in the installation instructions manual the proper requirements for the vapor piping.

The Wayne Vista 390 dispensers must be supplied with the appropriate modification kit (P/N 918942M-kit) when used with the OPW 11 VF nozzles or other long spout nozzles as require use of other specific modification kits as

Mr. Scott Negley
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described in the Wayne installation documentation. The nozzles must not be adjusted in the pockets before the Static Leak Decay test. If such adjustment is needed before the system can pass the Static Leak Decay test, then the nozzles may not be used with the dispenser as equipped. The dispensers should be used with components with back pressures such that the total system back pressures will be within the acceptable criteria.

The Missouri Department of Natural Resources' (MDNR's) Air Pollution Control Program (APCP) approves the equipment listed below, subject to the terms and conditions of approval listed above and on **MOPETP Approval APCP-0002-001-99**. The equipment below is approved for use on all Approved Balance Vapor Recovery systems.

Manufacturer	Model	Component
Wayne Dresser Ind.	Wayne Vista 390 V390U D4 GQUY	Dispenser

Attached please find **MOPETP Approval APCP-0002-001-99**. MDNR's APCP thanks you for your cooperation and diligence.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Roger D. Randolph
Director

RDR:bpp

Attachment

Attachment D

Scott Negley
Product Manager, Dispensers
Wayne Dresser Industries
P. O. Box 1859
Salisbury, MD 21802-1859

APPROVAL LETTER

99-07

Dear Mr. Negley:

This is to clarify the approval of the Balance Stage II Vapor Recovery dispensers which your company submitted for Missouri Performance Evaluation Test Procedures (MOPETP) testing and approval. This testing took place at the Mobil Mart, 5840 South Lindbergh, St. Louis, Missouri. These dispensers were approved with approval letter 99-04.

Just recently the Air Pollution Control Program (APCP) has determined, through engineering analysis, and information from equipment contractors, that this approval language was somewhat restrictive. This approval letter will clarify and explain what we now understand to be the representation for the acceptable models of similar design and emission potential as the Wayne Vista 390U D4 GQY, GQY, dispenser approved on Approval letter 99-04. These dispenser models are subject to the same restrictions and conditions as was previously listed on Approval 99-04.

These latest approved dispensers are all of the single hose family, both 48" and 36" widths. Hoses on one side are not to exceed two, as in the 3 + 1 and the 4 + 1 dispensers.

Scott Negley
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The Missouri Department of Natural Resources' APCP approves the equipment listed below, subject to the terms and conditions of approval listed above and on **MOPETP Approval APCP-0002-001-99**. The equipment below is approved for use on all Approved Balance Vapor Recovery systems.

Manufacturer	Model	Component
Wayne Dresser Ind.	Wayne Vista 390 V390U D4 GQUY	Dispenser
	V390U	Dispenser
	V395 becomes model V595 After 6/99	Dispenser
	V395U becomes model V595/U After 6/99	Dispenser
	V490U	Dispenser
	V580	Dispenser
	V585	Dispenser
	V590U	Dispenser

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Roger D. Randolph
Director

RDR/bpk

c: Stage II Vapor Recovery Manufacturers

Attachment E

**MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM
STAGE II VAPOR RECOVERY
OPW BALANCE SYSTEM
MOPETP APPROVAL APCP-0002-001-99**

The Missouri Department of Natural Resources has established, pursuant to Missouri Air Conservation Law 643.010 through 643.620 and State regulations 10 CSR 10-5.220, "Control of Petroleum Liquid Storage, Loading and Transfer," the authority to approve systems and components designed to control gasoline vapor emissions displaced during the bulk fuel deliveries at gasoline dispensing facilities storage tanks (Stage I systems, a subpart of the total Stage II system) and for systems and components designed to control gasoline vapor emissions from motor vehicle fueling operations (Stage II vapor recovery).

OPW Fueling Components has requested approval of the OPW Balance System, and specifically, the OPW Balance nozzles # OPW 11VF, Extractable Vapor Valve # OPW 233 VM-2045, Swivel Fill Adapter # OPW 16SA-1020, Locking Fill Adapter # OPW 633LC-1000, Fill Cap # OPW 634TT-4, Float Vent Valve # OPW53FC-0046, Overfill Protection Drop Tube #OPW 61SO-400C, Spill Container #OPW 1-2100 & OPW 1-21PP, Vapor Recovery Adapter # OPW 1161AV-1620, Vapor Recovery Cap # OPW 1711T-7085, and Breakaway #OPW 66CL, for Stage I & II vapor recovery applications in Missouri. The OPW Fueling Components, Wayne Dresser Vista 390 , Dayco Products, Inc., have also requested approval of their components listed in Exhibit 1, which were tested as part of the OPW Balance System.

OPW, Dresser Wayne, and Dayco have successfully completed California Air Resources Board (CARB) Certification testing and procedures on each of their vapor recovery product components prior to their application for Missouri approval.

The Balance system has successfully completed CARB Certification testing and procedures previous to its utilization in the Missouri approval testing. The CARB certification shall be incorporated by this reference, and all conditions, orders, limitations and testing requirements included in the CARB certification are made a part of this Missouri approval.

I, Roger D. Randolph, Director of the Air Pollution Control Program (APCP), find that, OPW, Dresser Wayne, and Dayco, have completed the required testing of components listed in Exhibit 1 under the Missouri Performance Evaluation Test Procedures, and result in a vapor recovery system which is at least 95% efficient for attendant and or self-serve use at gasoline dispensing facilities.

THEREFORE, the OPW Balance system is approved and recognized to be at least 95 percent efficient in attended and/or self-serve mode. Exhibit 1 of this order contains a list of the equipment approved for specific use with the OPW Balance system. Exhibit 2 contains Installation and Performance Specification for the equipment listed in Exhibit 1.

The maximum dispensing rate for installations of the OPW Balance system shall not exceed ten (10) gallons per minute in compliance with the limitation imposed by the United States Environmental Protection Agency as specified in the Federal Register, Volume 58, Number 55, page 16019.

The following requirements are made a condition of approval. The OPW Balance system shall be installed only in facilities which are capable of demonstrating on-going compliance, by applying for and successfully passing all Construction Permit and Operating Permit testing, vapor integrity requirements of the State APCP and cooperating Local Agencies, with jurisdiction over the installation. The owner or operator of the installation shall conduct, and pass a Static Pressure Decay test at least once for each Operating Permit renewal. The APCP Director or his designate may require this or any other applicable test in order to demonstrate compliance. *CARB certification requirements state the need for Static Pressure Decay tests once in each twelve (12) month period for some systems.*

The test shall be conducted in accordance with MOPETP MO/TP-201.3, "Determination of 2-Inch (WC) Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities." Further, the owner or operator of the installation shall conduct and pass Dynamic Pressure Performance Tests once in each twelve (12) month period. This test shall be conducted in accordance with MOPETP MO/TP-201.4, "Determination of Dynamic Pressure Performance of Vapor Recovery Systems at Dispensing Facilities." Alternative test procedures may be used if determined by the staff director to yield comparable results.

All components of the OPW Balance system shall be 100 percent performance checked at the factory, including checks of the integrity of the vapor path and the proper functioning of all automatic shut-off mechanisms.

The approved Balance components 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.

The approved Balance system components shall be performance tested during installation for ability to dispense gasoline and collect vapors without difficulty in the presence of the station operator, owner or designated person. The owner, operator, or designated person shall be provided with copies of the installation and maintenance manuals for the components to be maintained at the gasoline dispensing facility, and shall also be provided with instructions in the proper use of the Balance system, their repair and maintenance, where and how the system and/or components replacements can be readily obtained.

The approved Balance system components shall be warranted in writing for at least one year from the time of sale to the ultimate purchaser and each subsequent purchaser, that the vapor recovery system components are 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. Copies of the manufacturers' warranty for the system components shall be made available to the station manager, owner, operator, or designated person.

Any alteration of the equipment, parts, design, or operation of the systems or components as tested in the MOPETP and thereby approved is hereby prohibited and deemed inconsistent with this approval, unless such alteration has been previously approved by the Staff Director of the APCP or his or her designated person.

Executed at Jefferson City, Missouri this _____ day of _____, 19__.

Roger D. Randolph, Director
Air Pollution Control Program

Attachments: Exhibit 1, 2

EXHIBIT 1
OPW BALANCE SYSTEM
COMPONENTS BY MANUFACTURER
MOPETP APPROVED COMPONENTS

List of equipment tested during the OPW MO/PETP.

Component	Model	Number Tested
P/V Valve	OPW 523-2203 VS (slipon)	2
	OPW 523-2203 VS (threaded)	2
Extractable Vapor Valve	OPW 233 VM-2045	4
Swivel Fill Adapter	OPW 16SA-1020	2
Locking Fill Adapter	OPW 633LC-1000	2
Fill Cap	OPW 634TT-4	4
Float Vent Valve	OPW 53FC-0046	4
Overfill Protection Drop Tube	OPW 61SO-400C	4
Spill Container	OPW 1-2100 (with drain valve)	2
	OPW 1-21PP (Plugged)	2
Vapor Recovery Adapter	OPW 1161AV-1620	2
Vapor Recovery Cap	OPW 1711T-7085	2
Dispensers	Wayne Vista 390	6
	V390U D4 GQUY	
Nozzles	OPW 11VF	12
Hoses	Dayco V 2000	12
Breakaways	OPW 66 CL	12
Whip Hoses	Dayco 2000	12

The above components of the OPW Balance system are approved for use in gasoline dispensing facilities which require approved Balance Vapor Recovery systems. As additional Balance Vapor Recovery Equipment components become MOPETP approved, all approved Balance components will be available for use in all

future Balance Systems. The Balance system and various components approval is contingent upon compliance with all CARB certification requirements and the following Missouri MOPETP requirements.

The MOPETP requirements are listed on Exhibit 2.

EXHIBIT 2
Performance & Installation
Specifications

OPW 11 VF Nozzles

OPW 11 VF nozzles are approved for use with other approved balance system equipment in the State of Missouri. The nozzles attained a greater than 95% efficiency during one of the most difficult times of year for such testing. The nozzles performed well over the 180-day period of testing except in relation to the vapor valve opening at times when inserted into the Wayne Vista 390 nozzle pockets. All nozzles must have a serial number attached to the nozzle.

The installation instructions for these nozzles **MUST** include a notice that when used with the Wayne 390 Series dispenser (or any other dispenser using the same nozzle pocket design) that the nozzle pocket must be modified such that the bellows is not depressed allowing the vapor valve to open. If the nozzle bellow must be adjusted in order to pass the leak decay test, then the nozzle may not be installed with that dispenser.

If during operational permit testing, OPW 11 VF nozzles routinely have problems passing either the leak decay or pressure decay tests, then OPW will be notified and the problem must be resolved with immediate and long term corrective actions.

The nozzles should be used with components with back pressures such that the total system back pressures will be within the criteria listed in Table 2-1. A summary of the average back pressures of each component can be found in Table 2-2.

Table 2-1. MO/PETP Back pressure criteria.

Flow (scfh)	40	60	80
Back Pressure ("WC)	#0.16	#0.35	#0.62

Performance & Installation Specifications

Continued

Table 2-2. Summary of Average Back Pressure Data

(all data from the pretest except the nozzles).

Component	Model	Backpressure (“WC)			Number Tested
		40 cfh	60 cfh	80 cfh	
Dispensers	Wayne Vista 390 V390U D4 GQUY	0.072	0.129	0.215	6 (12 points)
Nozzles (Pretest)	OPW 11VF	0.018	0.052	0.094	12
Nozzles (Post test)	OPW 11VF	0.025	0.069	0.118	11
Hoses	Dayco V 2000	0.033	0.070	0.108	12
Breakaways	OPW 66 CL	0.003	0.007	0.009	12
Whip Hoses	Dayco 2000	0.013	0.028	0.045	12
System		0.127	0.253	0.360	12

OPW 66 CL Breakaways

OPW 66 CL Breakaways are approved for use with other approved balance system components in the State of Missouri. These breakaways must be manufactured, sold, and installed exactly as tested at the MO/PETP site. Any modifications will need [at a minimum] an engineering evaluation and review by the TRC. The breakaways should be used with components with back pressures such that the total system back pressures will be within the criteria listed in Table 2-1. A summary of the average back pressures of each component can be found in Table 2-2.

Wayne Vista 390 (V390U D4 GQUY)

Wayne Vista 390 series dispensers are approved for use with other approved balance system components. The Vista 390 series dispensers (vapor equipped/vapor ready) models are all included in this approval as long as the model chosen has a backpressure equal to or less than the model tested (V390U D4 GQUY). The Wayne Vista dispensers must be manufactured, sold, and installed as tested at the MO/PETP site. The dispenser must be installed such that there are no constrictions in the connections between the dispenser vapor piping and the underground piping.

Performance & Installation Specifications

Continued

It is preferred that the dispensers are installed with all vapor piping preinstalled by the manufacturer (suffix GQY). However, vapor ready systems (suffix GQUY) may be installed IF all vapor piping and connections installed by the contractor are the same as those materials used by the manufacturer. It is the responsibility of the contractor to assure that proper vapor piping and other components are used in installing the dispenser. It is the responsibility of the manufacturer to make clear in the installation instructions manual the proper requirements for the vapor piping.

The Wayne Vista 390 dispensers must be supplied with the appropriate modification kit (P/N 918942M-Kit) when used with the OPW 11VF nozzles or other long spout nozzles as described in the Wayne Installation Manual. Use of this dispenser with other long nozzles may require use of other specific modification kits as described in the Wayne installation documentation. The nozzles must not be adjusted in the pockets before the Leak Decay test; if such adjustment is needed before the system can pass the Leak Decay test, then the nozzles may not be used with the dispenser. If during operational permit testing, the Wayne 390 series dispenser routinely have problems passing either the leak decay or pressure decay tests, then Wayne will be notified and the problem must be resolved with immediate and long term corrective actions.

The dispensers should be used with components with back pressures such that the total system back pressures will be within the criteria listed in Table 2-1. A summary of the average back pressures of each component can be found in Table 2-2.

OPW 523V-2203 Pressure/Vacuum (P/V) Valves

OPW 535V-2203 P/V Valves are approved for use with other approved balance system components in the State of Missouri. Both the threaded and slip-on models were tested. These P/V valves must be manufactured, sold, and installed exactly as tested at the MO/PETP site and be able to pass the same test criteria. The P/V valves must be stamped with a model number and date code. The P/V valves must be installed according to the instructions. No pipe dope should be used to install the P/V valves. Care must be taken when checking for leaks around P/V valves that no soap gets into the valve. Such soap prevents the valve from opening properly. The slip-on models must be held down firmly before tightening. Any modifications will need [at a minimum] an engineering evaluation and review by the TRC.

If during operational permit testing, the OPW 535V-2203 P/V Valves may routinely have problems passing either the leak decay or pressure decay tests, then OPW will be notified and the problem must be resolved with immediate and long-term corrective actions.

Performance & Installation Specifications

Continued

OPW Spill Container 1-2100 with Drain Valve

OPW Spill Container 1-2100 with Drain Valve is approved for use with other approved balance system components in the State of Missouri. These spill containers with drain valves must be manufactured, sold, and installed exactly as tested at the MO/PETP site and be able to pass the same test criteria. Any modifications will need [at a minimum] an engineering evaluation and review by the TRC. While these spill containers did not appear to cause significant leaking during the 180 durability test, there is still more potential over the years for these spill containers to develop leaks than for the plugged spill containers or those built with no valve openings. Thus, the recommendation is that spill containers that are plugged or have no drain hole should be used.

OPW Spill Container 1-21PP with Drain Valve Opening Plugged

OPW Spill Container 1-21PP with Drain Valve Opening Plugged is approved for use with other approved balance system components in the State of Missouri. These spill containers with no drain valves must be manufactured, sold, and installed exactly as tested at the MO/PETP site and be able to pass the same test criteria. Any modifications will need [at a minimum] an engineering evaluation and review by the TRC. These spill containers are preferred over those with drain valves because of the greater possibility of leaks over the years for those with drain valves.

OPW Swivel Fill Adapter 16SA-1020

OPW Swivel Fill Adapter 16SA-1020 is approved for use with other approved balance system components in the State of Missouri. These fill adapters must be manufactured, sold, and installed exactly as tested at the MO/PETP site and be able to pass the same test criteria. Any modifications will need [at a minimum] an engineering evaluation and review by the TRC. There did not appear to be the same problems with these adapters being loosened during bulk fuel deliveries as with the OPW 633T-8706 fill adapters tested during the Husky MO/PETP. Thus, it is recommended that the locking clamp or swivel adapters be used.

OPW Locking Clamp Fill Adapter 633LC-1000

OPW Locking Clamp Fill Adapter 633LC-1000 is approved for use with other approved balance system components in the State of Missouri. These fill adapters must be manufactured, sold, and installed exactly as tested at the MO/PETP site and be able to pass the same test criteria. Any modifications will need [at a minimum] an engineering evaluation and review by the TRC. There did not appear to be the same problems with these adapters being loosened during bulk fuel deliveries as with the OPW 633T-8706 fill adapters tested during the Husky MO/PETP. Thus, it is recommended that the locking clamp or swivel adapters be used.

Performance & Installation Specifications

Continued

GENERAL GUIDELINES

At this time, several Balance system vapor recovery equipment manufacturers are conducting MOPETP tests for approval. As additional Balance system components are approved, those components will be approved as alternates to these components. The APCP foresees a wide selection of Balance system components available within the next year. These various approved components will be available to “mix and match” to other approved Balance components.

Back pressure is a critical issue in Balance systems. It has been estimated that for each additional 0.1” WC back pressure the system will lose 1% efficiency. Careful judgement should be taken to ensure that the components selected will result in total system back pressures within the acceptable limits. An example would be that during the Husky Balance MOPETP, one hose manufacturer had to be eliminated due to excessive hose back pressure. The general guideline for back pressure sharing is 1/3rd for the hanging gear, 1/3rd for the dispenser, 1/3rd for the underground plumbing and UST.