



Mel Carnahan, Governor • Stephen M. Mahfood, Director

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY

P.O. Box 176 Jefferson City, MO 65102-0176

DEC 23 1998

Mr. John Harris
Project Engineer, Dispenser Engineering
Tokheim Retail Petroleum Systems
1300 Bicentennial Drive
Bonhan, TX 75418

Re: Approval letter

98-07

Dear Mr. Harris:

This is to inform you of the approval of the Balance Stage II Vapor Recovery dispensers which your company submitted for Missouri Evaluation Performance Test Procedure (MOPETP) testing for Missouri approval. These dispensers are the 4000 Series, 4331-6A-V and the Centurion, 23112-95, & 34222-95, "vapor recovery provided models." The MOPETP testing took place (4000 Series) at the Petro Marts, 9653 St. Charles Rock Road and (Centurion Series) 10001 Page Avenue, St. Louis, Missouri. The request for approval was originally submitted under the corporate name, Schlumberger. At the time of the signing of the Test Plan Agreement, the corporate name became RPS-NAM. Before finish of testing, the name changed a third time to Tokheim Retail Petroleum Systems.

At the Technical Review Committee, it was decided that 3+1 dispensers would be tested (three blended grades with one hose per side and one grade with one hose per side). Specifically, for the 4000 Series, the maximum number of hoses per dispenser is four and the dispensers tested had two hoses per side. The three dispensers on the Centurion 23112 had two hoses (one per side) and the Centurion 34222 had two diesel hoses in addition to the two gasoline hoses. The diesel hoses would not have been connected to the vapor recovery line.

Due to the testing of dispensers without the maximum number of hoses, the only models approved are those mentioned below. Dispensers which have more complex vapor piping (those with additional hoses) will have to be tested to determine backpressures. Only the "vapor recovery provided" configuration (V not VP suffix) is being approved in order to ensure consistent quality control of the vapor piping.

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Dispenser and system wide backpressures are crucial to system performance and demonstrating compliance. Care should always be taken by those planning a station's vapor recovery system to assemble components with compliant backpressures.

The Missouri Department of Natural Resources' Air Pollution Control Program (APCP) approves the equipment listed below subject to the terms and conditions of approval listed on **MOPETP Approval APCP-0001-001-98**. The equipment below is approved for use on all Approved Balance Vapor Recovery systems.

Manufacturer	Model	Component
Tokheim Retail Petroleum Systems <i>Formally Schlumberger and RPS-NAM</i>	4000 Series V-4331-6A-VP	Dispenser, one hose per side
	Centurion Series 95-23112	Dispenser, one hose per side
	Centurion Series 95-34222	Dispenser, one gas per side One diesel per side

The Balance dispensers in 4000 Series and Centurion Series, which are configured with one hose per side or less, equipped at the factory with vapor piping included are all approved under this approval.

Attached please find **MOPETP Approval APCP-0001-001-98**. The APCP thanks you for your cooperation and diligence.

Sincerely,

AIR POLLUTION CONTROL PROGRAM



Roger D. Randolph
Director

RDR:bpt

Attachment

Tokheim (formerly Schlumberger) MO/PETP
 Petro Mart at 9653 St. Charles Rock Road, St. Louis, MO 63114
Average Dispenser Backpressure Data for the 4000 Series Dispensers

	Dispenser Backpressure ("WC) - 4000 Series (4331-6A-VP) (8 Data Points)		
	40 cfh	60 cfh	80 cfh
Average	0.025	0.043	0.070
Std. Dev	0.015	0.009	0.015

Tokheim (formerly Schlumberger) MO/PETP
 Petro Mart at 9653 St. Charles Rock Road, St. Louis, MO 63114
**Average System Backpressure Data for the 4000 Series Dispensers
 Using Husky 5210 V Long Nozzles and Goodyear 0487 Hoses**

	System Backpressure ("WC) - 4000 Series (4331-6A-VP) (8 Data Points)		
	40 cfh (≤0.16 "WC)	60 cfh (≤0.35 "WC)	80 cfh (≤0.62 "WC)
Average	0.106	0.200	0.324
Std. Dev	0.024	0.017	0.014

Tokheim (formerly Schlumberger) MO/PETP
 Petro Mart at 10001 Page Avenue, St. Louis, MO 63132
Average Dispenser Backpressure Data for the Centurion Series (23112) Dispensers

	Dispenser Backpressure ("WC) – Centurion Series (23112 – 6 Data Points)		
	40 cfh	60 cfh	80 cfh
Average	0.025	0.072	0.160
Std. Dev	0.025	0.047	0.083

Tokheim (formerly Schlumberger) MO/PETP
 Petro Mart at 10001 Page Avenue, St. Louis, MO 63132
**Average System Backpressure Data for the Centurion Series (23112) Dispensers
 Using Husky 5210 V Long Nozzles and Goodyear 0487 Hoses**

	Dispenser Backpressure ("WC) – Centurion Series (23112 – 6 Data Points)		
	40 cfh (≤0.16 "WC)	60 cfh (≤0.35 "WC)	80 cfh (≤0.62 "WC)
Average	0.120	0.220	0.352
Std. Dev	0.017	0.015	0.017