

# STATE OF COLORADO

John W. Hickenlooper, Governor  
Larry Wolk, MD, MSPH  
Executive Director and Chief Medical Officer

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.  
Denver, Colorado 80246-1530  
Phone (303) 692-2000  
Located in Glendale, Colorado  
[www.colorado.gov/cdphe](http://www.colorado.gov/cdphe)



Colorado Department  
of Public Health  
and Environment

June 6, 2014

Dan Morosky  
Rosedale Products, Inc.  
P.O. Box 1085  
Ann Arbor, MI 48106

Subject: Acceptance of the Rosedale Model PS-740-PPP-356 cartridge filter as an Alternative Filtration Technology to meet the *Colorado Primary Drinking Water Regulations* requirements for *Giardia lamblia* and *Cryptosporidium* Removal

Dear Mr. Morosky;

The Colorado Department of Public Health and Environment's (CDPHE) Water Quality Control Division ("the Department") has received and reviewed the information for the Rosedale Model PS-740-PPP-356 cartridge filter in accordance with Section 11.8(2)(b)(ii) and 11.10(5)(j) of the *Colorado Primary Drinking Water Regulations* (Regulation 11), 5 CCR 1002-11. The Rosedale cartridge filter meets or exceeds the requirements of the *State of Colorado Design Criteria for Potable Water Systems* (DCPWS) Sections 1.11, 4.3.9 and the requirements of Regulation 11. The technology is therefore conditionally accepted for use as an Alternative Filtration Technology and granted the removal credit in Table 4.2, Section 4.3.9.2 of the DCPWS. The cartridges and cartridge filter housings acceptable for use with the Rosedale Model PS-740-PPP-356 cartridge filter are subject to the conditions outlined in Table 1 and Section 4.3.9 of the DCPWS.

This revised acceptance supersedes all previous acceptance letters of the PS-740-PPP-356 filters and associated filter housings.

This acceptance addresses the following item:

- Rosedale Model PS-740-PPP-356 cartridge filter

This acceptance applies only to the Rosedale cartridge housings identified within this acceptance that utilize the Model PS-740-PPP-356 cartridge filter and does not constitute construction approval for installation at any public water system. Each individual submittal to the Department must demonstrate conformance with Section 4.3.9 of the DCPWS for each installation of the filters and housings. **Review and approval for the design of any public water system proposing to use this technology will be handled on a case-by-case basis by the Department as required by Section 11.4 of Regulation 11.**

As part of this review, the Department has evaluated the following documents:

- March 13, 2013 letter and attachments from Dan Morosky requesting acceptance of the PS-740-PPP-356 cartridge – packet included IBR certification and it included product cut sheets and schematics.

- Email correspondence between Dan Morosky and Tyson Ingels
- November 7, 2013 letter from Dan Morosky clarifying request for acceptance of multiple housings.
- IBR Laboratories Test Report, April 25, 2011 – Showing > 3.0 log removals of 3 micron polystyrene microspheres at pressures less than 30 PSID – Signed by Susan Goldsmith.
- NSF International Official Listing, June 8, 2010 – Listing Rosedale products as NSF 61 certified.

Any addenda that will modify the module must be submitted to the Department for review and acceptance prior to use in Colorado by a regulated public water system. This requirement includes any changes made to the filter materials of construction and associated interfaces with process piping. The Department will review any additional third party verification reports and issue a revised acceptance letter if appropriate.

**Table 1. Rosedale Model PS-740-PPP-356 Cartridge Filters Technical Specifications and Conditions of Acceptance:**

<b>Technical Specifications</b>	
<b>Cartridge Filter Model</b>	<b>PS-740-PPP-356</b>
Maximum Flow Rate	20 gallons per minute (gpm)
Maximum Differential Pressure for Cartridge Change out	30 pounds per square inch differential (psid)
Turbidity Performance Standards	< 1 NTU 95% of the time - Never to exceed 5 NTU
<b>Accepted Housing Model Numbers</b>	<b>Maximum Flow</b>
PS-740-Adaptor Basket used with GFS-8-30-2P-2-150-S-FG-B-PB-DPS	10 GPM (1 Cartridge)
NCO8135-2P-1-150-S-E-700-NSF	20 GPM (1 Cartridge)
8135-2F—1-150-S-E-700-NSF	20 GPM (1 Cartridge)
18435-2F—1-150-S-E-700-NSF	80 GPM (4 Cartridges)
24735-3F1-150-S-E-700-NSF	140 GPM (7 Cartridges)
361835-4F—1-150-S-E-700-NSF	360 GPM (18 Cartridges)
422135-4F—1-150-S-E-700-NSF	420 GPM (21 Cartridges)
482935-6F-1-150-S-E-700-NSF	580 GPM (29 Cartridges)
<b>Vessel Design</b>	<b>Specification</b>
Material	304 Stainless Steel
Maximum Inlet Pressure Requirements	150 psi

<b>Additional Operations and Maintenance Criteria</b>	
1. Each public water system must keep a record daily routine pressure differential readings and filter change outs. The document must be available for review by the Division upon request. 2. An Operations and Maintenance (O&M) Manual must be provided for all installations including a protocol for filter change out to ensure sanitary conditions and good filter installation practice. 3. Spare Parts must include replacement cover o-rings as specified below:	
<b>Accepted Housing Model Numbers</b>	<b>Cover O-ring Part Number</b>
NCO8135-2P-1-150-S-E-700-NSF	8150-CG-E
8135-2F—1-150-S-E-700-NSF	8150-CG-E
18435-2F—1-150-S-E-700-NSF	18CG-ECART
24735-3F1-150-S-E-700-NSF	24CG-ECART
361835-4F—1-150-S-E-700-NSF	36CG-ECART
422135-4F—1-150-S-E-700-NSF	42CG-ECART
482935-6F-1-150-S-E-700-NSF	48CG-ECART

Please direct any further correspondence regarding this acceptance to:

Tyson Ingels, P.E.  
 Colorado Department of Public Health and Environment  
 Water Quality Control Division  
 4300 Cherry Creek Drive South  
 Denver, CO 80246

If you have any questions or comments, please call Tyson Ingels at 303-692-3002.

Sincerely,

Tyson Ingels, P.E.  
 Lead Drinking Water Engineer  
 Engineering Section  
 Water Quality Control Division  
 Colorado Department of Public Health and Environment