MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
NUTRIENT-REDUCING WASTEWATER TREATMENT SYSTEM DESIGNATION FORM

DATE: June 16, 2008 (Updated January 2018)

APPLICATION SUBMITTAL DATE(S): August 1, 2006, October 18, 2006, January 2, 2007, and January 4, 2007, February 25, 2008 and May 30, 2008

SYSTEM MANUFACTURER/DESIGNER: HDR Engineering Inc.

SYSTEM NAME(S): Activated Sludge / Biological Nutrient Reduction / Membrane Filtration

DESIGNATED TREATMENT LEVEL[1]: Level 2 (Can use 7.5 mg/L for effluent nitrogen concentration for subsurface wastewater treatment system in nitrate dilution analysis)

CONDITIONS:

A. This approval is only for HDR activated sludge/biological nutrient reduction systems that have a design flow over 5,000 gallons per day. This requirement is due to the relatively high operation and maintenance requirements for this system that are less likely to be met for smaller systems.

B. This approval does not extend to systems that serve facilities with either highly variable wastewater flows or wastewater quality. These facilities include but are not limited to schools, churches, and camps. To ensure consistent wastewater flows, this approval is valid only for facilities where at least 90% of the design wastewater flow is coming from residential units (or commercial units) where consistent year-round occupancy/use is anticipated.

C. Due to concerns regarding temperature impacts on the denitrification process, all of the equalization, anoxic and aeration basins shall be located inside a fully enclosed building that is maintained at a minimum temperature of 50 degrees Fahrenheit year-round.

D. This approval is also valid for HDR systems that have additional treatment steps, such as disinfection, as long as the additional treatment does not affect the basic denitrification treatment processes.

E. Approval is valid for residential and non-residential facilities with residential strength wastewater as defined in section 1.2.72 of DEQ 4 – 2013 edition). For systems accepting high strength wastes (as defined in section 1.2.39 of DEQ 4 - 2013 edition) the level 2 designation is valid with proper pre-treatment in compliance with all applicable rules, design standards and as approved by the Department.

APPROVED BY: Eric Regensburger

NOTES:

1 The definitions of level 1a, level 1b, and level 2 are in ARM 17.30.702(9), (10) and (11), respectively.