

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

NUTRIENT-REDUCING WASTEWATER TREATMENT SYSTEM DESIGNATION FORM

DATE: December 23, 2009 (Updated January 2018)

APPLICATION SUBMITTAL DATE(S): SEPTEMBER 1, 2009; NOVEMBER 14, 2009

SYSTEM MANUFACTURER: Fluidyne Corporation

SYSTEM NAME(S): Fluidyne ISAM Sequencing Batch Reactor (SBR)

DESIGNATED TREATMENT LEVEL¹: Level 2 (Can use 24 mg/L for effluent total nitrogen concentration in nitrate mixing zone dilution analysis)

CONDITIONS:

A. This approval is only for Fluidyne ISAM systems that have a design flow over 5,000 gallons per day and are required to obtain a Montana Ground Water Pollution Control System (MGWPCS) Permit pursuant to Administrative Rules of Montana (ARM) 17.30.1022. 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 is anticipated.

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

D. 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.