

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

DATE: July 18, 2006. Revised May 8, 2009 (updated January 2018)

APPLICATION SUBMITTAL DATE(S): June 28, 2005, August 8, 2005, September 7, 2005, September 26, 2005 and January 18, 2006

SYSTEM MANUFACTURER: Santec Corporation

SYSTEM NAME(S): Santec extended aeration process

DESIGNATED TREATMENT LEVEL¹: Level 2 (Can use 14 mg/L for effluent nitrate (as N) concentration for subsurface wastewater treatment system in nitrate dilution analysis)

CONDITIONS:

A. This approval is only for Santec extended aeration 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 Santec 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 wastewater in the equalization, anoxic and aeration basins shall be maintained at a minimum temperature of 50 degrees Fahrenheit year-round.

D. This approval is also valid for Santec 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.